



Box Hill Tram Terminus Urban Design and Landscape Plan

09 August 2023

Document Number

SRL-WPA-TRA-NAP-REP-APL-BOX-0001



PLANNING AND ENVIRONMENT ACT 1987

WHITEHORSE PLANNING SCHEME

CONDITION 4.7 OF THE SUBURBAN RAIL LOOP EAST
INCORPORATED DOCUMENT AUGUST 2022

ENDORSED DOCUMENT

SHEET 1 to 64

SIGNED .....

MINISTER FOR PLANNING

DATE 21/8/2023.....

VICTORIA'S
BIG BUILD





Acknowledgement of Country

Suburban Rail Loop (SRL) is located on the traditional lands of the Wurundjeri, Bunurong and Boonwurrung People, who form part of the East Kulin Nation.

We proudly acknowledge and respect Victoria's Traditional Owners as the original custodians of the state's land and waters, their unique ability to care for Country and deep spiritual connection to it. We pay our respect to their Elders past and present whose knowledge and wisdom has and continues to ensure the continuation of culture and traditional practices.

We are committed to partner and meaningfully engage with Victoria's Traditional Owners and Aboriginal communities to support the protection of Country, the maintenance of spiritual and cultural practices and the creation of enhanced opportunities for Aboriginal people in SRL Precincts.

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No.	Date	Description	Prepared By	Reviewed By	Project Principal
A01	11/07/2023	Issued for Approval	IV	KM	JS
A02	09/08/2023	Minor plan update	IV	KM	JS

Executive Summary

Victoria's population is expected to grow to around 11.2 million by 2056, with Melbourne to be home to around 9 million people – a global city the same size as London today.

Suburban Rail Loop will deliver a 90km rail line linking every major train service from the Frankston Line to the Werribee Line via Melbourne Airport, providing a “turn-up-and-go” service with quick and convenient interchanges with existing lines, improving how we move around Melbourne and helping it grow in a planned and sustainable way.

Delivered in stages over several decades, Suburban Rail Loop will open up a host of new social and economic opportunities for hundreds of thousands of Victorians by creating greater access and connections to jobs, health services, education and affordable housing. Construction of SRL East, from Cheltenham to Box Hill, is currently underway and trains will be running by 2035.

As part of the overarching planning approval issued for SRL East, Urban Design and Landscape Plans (UDLPs) are required to be prepared for all permanent above ground works. This UDLP, the first to be prepared for SRL East, relates to the relocation of the existing Tram Terminus at Box Hill. The relocation is required to move tram infrastructure away from where the SRL station box will be excavated, ensuring tram services will be maintained without interruption throughout the full station construction period.

The works proposed through this UDLP are summarised as follows:

- Relocation of the tram platform to approximately 40m west of its current location to the existing car park, which will be removed, and the existing tram platform and associated infrastructure will be demolished.
- Reconfiguration of the tram tracks to provide a “scissors” crossover.
- Construction of a new pedestrian access ramp to the platform from the existing pedestrian crossing within the Whitehorse Road central median
- Installation of two electrical kiosks south of the tracks, along with maintenance access from both sides of Whitehorse Road
- Installation of a temporary staff toilet/amenities building
- Associated tram infrastructure and platform fit out, including shelters, seating, ticketing machines, lighting, overhead wiring and safety fencing.

The design presented in this UDLP has sought to balance functional requirements relevant to the safe and efficient operation of tram infrastructure with landscape, heritage and visual amenity considerations, in order to provide a resilient and attractive design response. It has also carefully considered the spatial and visual relationship between the Tram Terminus and future infrastructure to be delivered within the Box Hill precinct, to ensure that the design, siting or operation of these works is not compromised.

The development of this UDLP and the associated technical design process for the Tram Terminus relocation has been informed by ongoing consultation and engagement with key stakeholders, including Yarra Trams as the future asset owner. The UDLP was made available for review and comment by the broader community through a formal public exhibition process in between May and June 2023. Feedback received through this process has been incorporated into the final design response presented through this UDLP, with the following changes to the proposal being made specifically in response to community submissions:

- Provision of additional seating adjacent to the platform
- Provision of bike hoops adjacent to the platform, pending the delivery of the Parkiteer secure storage cage east of Market Street through future stages of the Project.

In addition to being a critical first step in facilitating the construction of the future SRL station, the relocation of the Tram Terminus as detailed through this UDLP will provide immediate benefits to pedestrian safety and connectivity by removing the tram crossing within the central median pedestrian path. This will streamline access to tram services from the north, paving the way for the delivery of a broader package of public realm and transport improvements to be delivered within the Box Hill precinct through the SRL East Project.

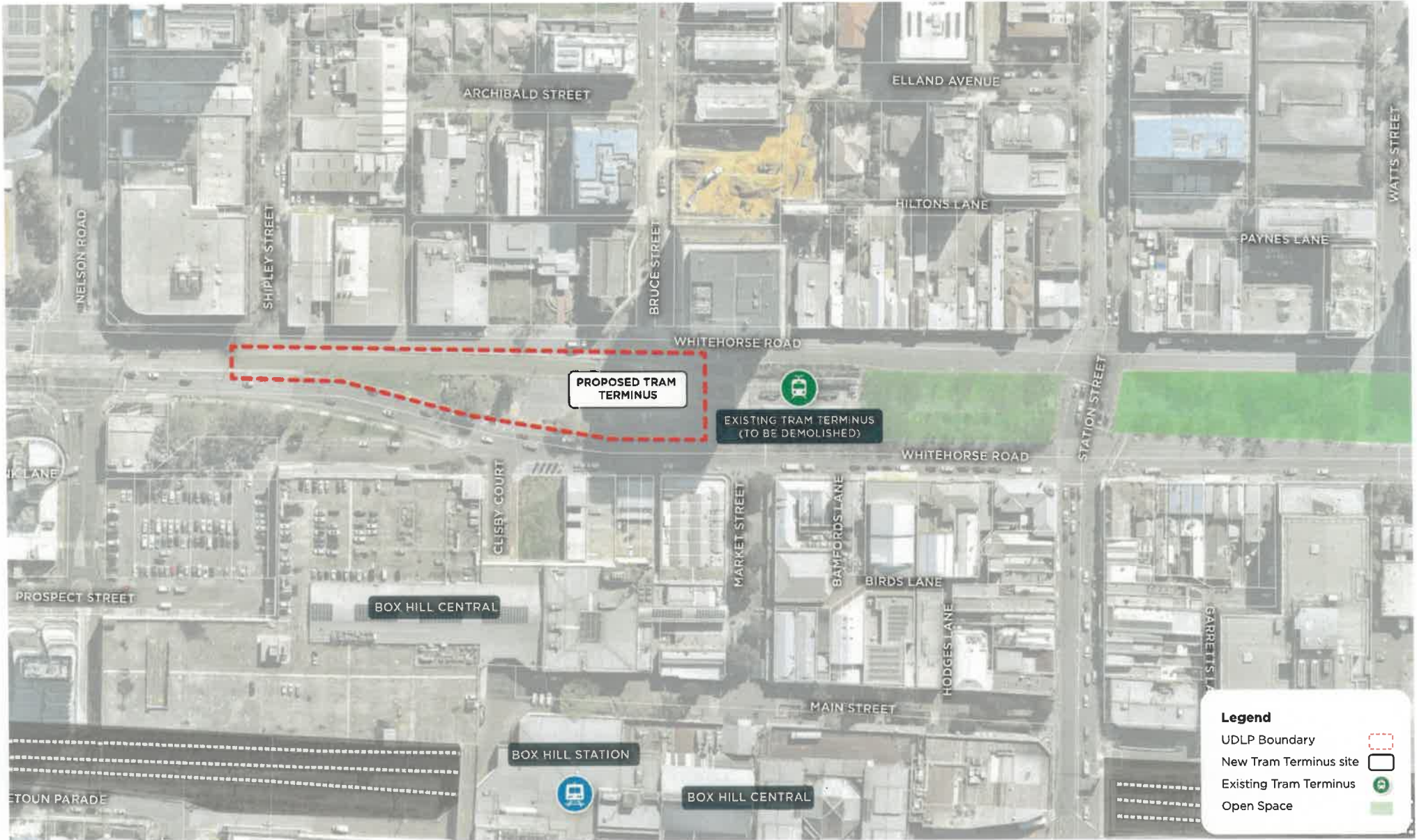


Figure 1. Site Location, showing UDLP boundary in red dashed line.



1. Introduction

1.1 Project Overview

This report forms part of the UDLP detailing the proposed relocation and redevelopment of the Box Hill Tram Terminus as part of SRL East. The full set of UDLP plans and drawings are provided at Appendix A of this document.

The relocation of the Box Hill Tram Terminus, as detailed in this UDLP, represents the first step in the development of the design of the broader package of transport and public realm improvements to be delivered within the Box Hill precinct through the SRL East Project.

This UDLP has been prepared by Laing O'Rourke, who is the Managing SRL Contractor responsible for design and delivery of the broader SRL East Initial and Early Works construction package.

The final design and layout of the future SRL station and surrounding precinct works within Box Hill, which include the permanent realignment of Whitehorse Road to the north and delivery of a new linear open space reserve south of the central median, do not form part of this UDLP and will be detailed and further resolved through future UDLP processes.

1.1.1 Suburban Rail Loop

SRL will deliver a 90km rail line linking every major train service from the Frankston Line to the Werribee Line via Melbourne Airport, better connecting Victorians to jobs, retail, education, health services and each other. SRL will be delivered in stages over several decades. SRL East involves the construction of 26km of rail line from Cheltenham to Box Hill. Six new underground stations will be delivered as part of SRL East together with new and upgraded public spaces, transport infrastructure and pedestrian and cycling connections.

1.1.2 SRL Station at Box Hill

The future SRL station at Box Hill is located underneath Whitehorse Road, extending between the Market Street pedestrian mall and the north side of Whitehorse Road.

As shown on the approved Surface and Tunnel Plans, construction of the station also includes delivery of a series of associated transport and public realm improvements to provide for safe and seamless connections between new and existing public transport infrastructure. These improvements can be summarised as follows:

- Realignment of Whitehorse Road between Nelson Road and Linsley Street to the northern side of the road reserve
- Creation of a new east-west linear open space reserve south of the Whitehorse Road median (currently the southern carriageway of Whitehorse Road), containing new pedestrian and cycle links.

This open space will connect to the Market Street pedestrian mall, provide a direct, traffic free connection between the Tram Terminus to the north and Box Hill Central shopping centre to the north.

- Relocation of the existing Route 109 Tram Terminus to the western side of the central pedestrian crossing, removing the need for pedestrians to cross tram tracks when travelling to the north side of Whitehorse Road.
- Creation of a new, landscaped pedestrian boulevard connecting the northern entrance of the new station through to Box Hill Gardens, with improvements and connections to existing pedestrian path networks
- Accessible pick-up and drop-off areas, taxi bays, and dedicated bicycle parking.

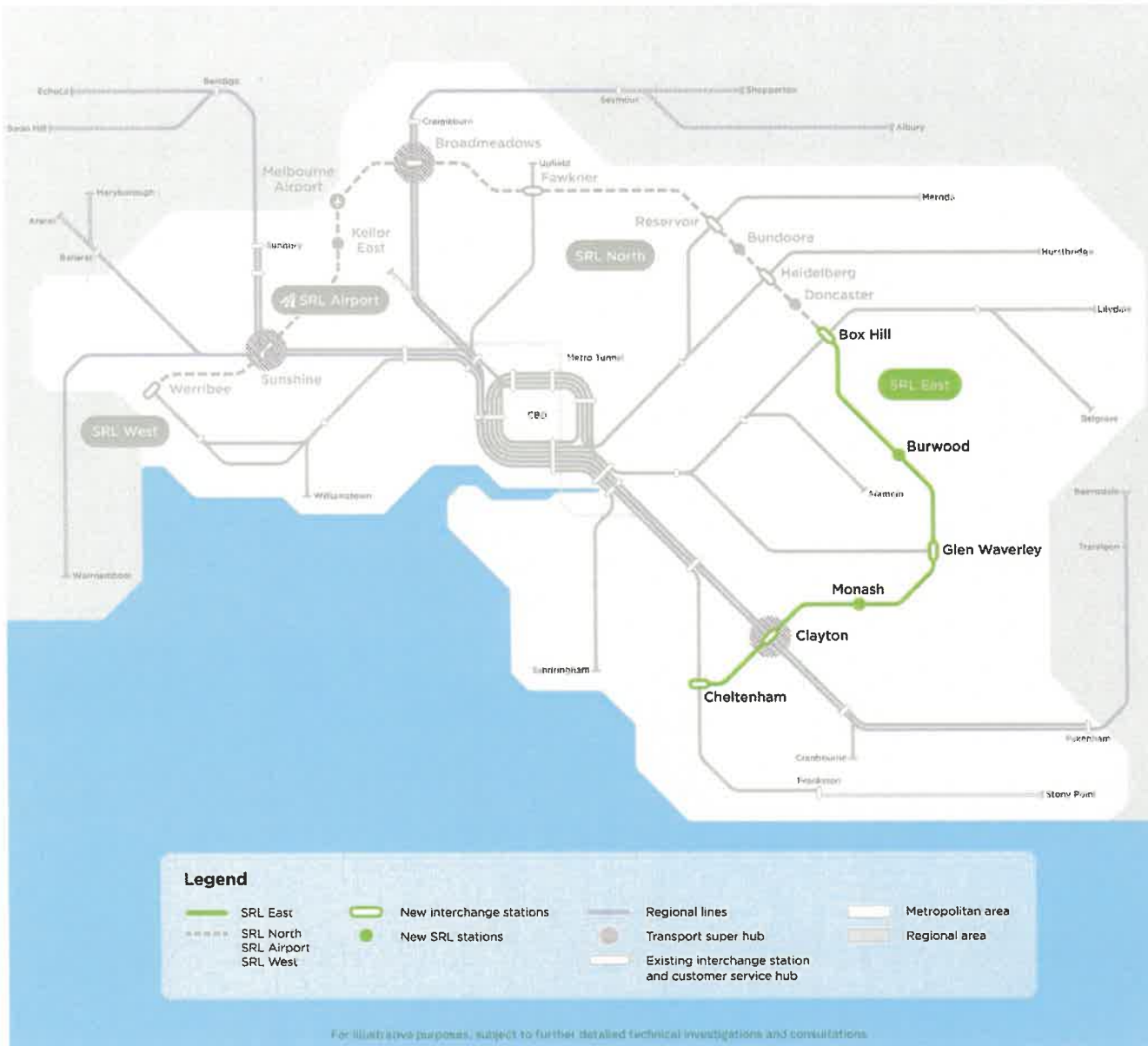


Figure 2 Suburban Rail Loop Network Map



Figure 3. Box Hill SRL Station - location map (SRL Urban Design Strategy, p.95).

1.2 Scope and Rationale for this UDLP

This UDLP specifically relates to the relocation of the Box Hill Tram Terminus to approximately 40 metres west of its current location. It provides the design concept for all structures and elements associated with the new Tram Terminus, including built form, the location and treatment of pedestrian paths, and associated infrastructure and ancillary structures. It also includes permanent and interim landscaping and design treatments, where these are to be in place for an extended period of time.

Figure 4 outlines the UDLP boundary and proposed location of the new Tram Terminus. Full details of the works are provided in Section 4 of this report.

The Tram Terminus relocation is required to be undertaken ahead of construction commencing on the future SRL station in order to facilitate the delivery of a temporary bridging structure over the station excavation and associated diversion of Whitehorse Road. Key tram infrastructure, including the tracks, platform and shelters, will be constructed in their permanent location, allowing for continuous operation of tram services during the construction period and avoiding the need for further disruption and rework in the future.

In addition, by removing the need for pedestrians and cyclists to cross the tram tracks when accessing tram services from the north side of Whitehorse Road, the relocation of the Tram Terminus will provide immediate benefits to safety and connectivity within central Box Hill, streamlining north-south movements.



Figure 4. UDLP context plan

1.3 Purpose of this UDLP

As part of the overarching planning approval for SRL East, UDLPs are required to be prepared and approved for all development involving permanent above ground works.

The tram platform, shelters and other above ground components of the Tram Terminus are all to be sited in their permanent location, triggering this requirement.

In addition to detailing the overall design and landscape concept for the Tram Terminus development, this UDLP also provides a detailed assessment of how the design is in accordance with the relevant requirements of the approved SRL East Surface and Tunnel Plan, the Urban Design Strategy (UDS), and Environmental Management Framework (EMF). These three documents form the framework and parameters for how SRL East is to be designed, sited, and managed.

1.3.1 Statutory Requirements

The requirement to prepare a UDLP derives from Clause 4.7 of the Incorporated Document. This forms part of the Bayside, Kingston, Monash, and Whitehorse planning schemes and is implemented through a Specific Controls Overlay (SCO14) within each scheme. The Incorporated Document provides the overarching planning approval for SRL East and was approved by the Minister for Planning under Amendment GC197 on 30 September 2022.

Under Clause 4.7.1 of the Incorporated Document, a UDLP must be prepared and approved prior to construction commencing on any permanent above-ground buildings or structures, unless they are defined to the satisfaction of the Minister for Planning as “preparatory buildings and works” under Clause 4.13.2. Construction of the tram platform, shelters and other elements of the proposed Tram Terminus relocation do not fall under the definition of “preparatory buildings and works”, and consequently are not exempt from the requirements of Clause 4.7.1.

A summary of how this UDLP responds to the relevant requirements of the Incorporated Document is provided overleaf.



Incorporated document requirement	Response	UDLP section
4.7.1 Prior to the development of the permanent above ground components of buildings (excluding preparatory buildings and works under Clause 4.13.2), Urban Design and Landscape Plans (UDLPs) must be prepared to the satisfaction of the Minister for Planning.	The relocated Tram Terminus includes permanent above-ground buildings and structures, and a UDLP is therefore required. This UDLP has been prepared prior to commencement of construction and finalisation of detailed design of these above ground elements.	Whole document
4.7.3 The UDLPs must show the final built form design of the permanent above ground components of buildings, permanent roads, permanent public realm, permanent primary pedestrian and bicycle routes, permanent bus and tram interchanges and include, where relevant:	-	-
a) A site layout plan that shows the location of permanent above-ground buildings (including but not limited to stations, ventilation structures, ancillary infrastructure and public realm improvements).	A site layout plan has been prepared showing the location of all works.	3.1 Scope of Works Appendix A - UDLP Drawing Set
b) Architectural plans, including sections and elevations, with an approach to materials and finishes.	Architectural drawings have been prepared for the tram shelters, driver amenities, and ancillary electrical kiosks with details of colour and material finishes provided through this report	4.2.2 Built Form 4.2.3 Colours, Materials and Finishes Appendix A - UDLP Drawing Set
c) Landscape plans, including sections and elevations, with an approach to plantings.	Landscape drawings and a planting schedule have been prepared and are described within this report.	4.2.4 Landscape Appendix A - UDLP Drawing Set
4.7.4 A UDLP must be accompanied by the following, where relevant:	-	-
a) An explanation demonstrating how the UDLP is in accordance with the approved UDS.	An assessment against the relevant requirements of the UDS has been undertaken as part of the development of this UDLP.	Appendix B - Compliance Assessments
b) An explanation demonstrating how the UDLP would comply with the relevant EPRs as identified in the approved EMF.	An assessment demonstrating compliance with the relevant EPRs has been undertaken as part of the development of this UDLP	Appendix B - Compliance Assessments
c) A plan which shows the extent of the UDLP area in relation to any publicly available or approved UDLP/s for the Project.	A plan showing the extent of this UDLP in the context of the broader Box Hill Precinct has been included, noting that this is the first UDLP to be prepared for the SRL East Project.	1.2 Scope and Rationale for this UDLP.
d) An explanation of how the UDLP is generally in accordance with the approved Surface and Tunnel Plans.	An assessment demonstrating that the siting and treatment of the relocated Tram Terminus is compliant with the Surface and Tunnel Plans has been undertaken as part of this UDLP.	Appendix B - Compliance Assessments
e) An explanation demonstrating why the location of the bus interchange and pick-up and drop-off locations in the UDLP are appropriate and including the detailed design transport and traffic justification following consultation with the relevant stakeholders.	Not applicable to this UDLP – the design and siting of pick-up/drop-off facilities will be addressed within a future UDLP as part of design of the SRL Station at Box Hill and broader precinct works.	-
f) An explanation, only in the relevant UDLP, demonstrating the retention or closure of Carinish Road, Clayton or Coleman Parade, Glen Waverley is appropriate and including the detailed design transport and traffic justification following consultation with the relevant stakeholders.	Not applicable to this UDLP – this requirement relates to UDLPs within the Glen Waverley and Clayton SRL precincts only.	-

Incorporated document requirement

Response

4.7.5	Prior to the submission of an UDLP to the Minister for Planning for approval, an UDLP must be:	
	a) Provided to the UDAP and relevant council/s for consultation. The minimum period for council consultation must be 28 days.	UDAP and Whitehorse City Council were provided access to the draft UDLP and formally invited to provide feedback during the public exhibition period, which occurred between 24 May and 25 June 2023. The duration of this consultation period was 32 days. Both bodies have also been informally consulted through the development of this UDLP.
	b) Provided to the Department of Transport, Melbourne Water, Heritage Victoria, the Department of Environment, Land, Water and Planning (DELWP), Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation, Bunurong Land Council Aboriginal Corporation, the Head, Transport for Victoria and other stakeholders for consultation where relevant.	All stakeholders listed at Section 4.7.5 b) were provided access to the draft UDLP and formally invited to provide feedback during the public exhibition period.
	c) Made available for public inspection and comment on a clearly identifiable Project website. The website must set out details about the entity and contact details to which written comments can be directed during that time and specify the time and manner for the making of written comments. The minimum period for public comment must be 28 days.	The UDLP was made available for public review and comment via the Engage Victoria website between 24 May 2023 and 25 June 2023. The duration of this consultation period was 32 days.
	d) For the avoidance of doubt, consultation in accordance with (a) and (b) can occur prior to, during and after the public inspection and comment period in (c)	Consultation with public authorities and other stakeholders listed in Sections 4.7.5 a) and b) was undertaken in parallel with the public exhibition period.
4.7.6	Before, or on the same day as an UDLP is made available in accordance with Clause 4.7.5(c), a notice must be:	
	a) Published in a newspaper generally circulating in the area to which an UDLP applies informing the community of the matters set out in Clause 4.7.5(c)	Notification of commencement of the public exhibition period for the UDLP was published in the Herald Sun on 24 May 2023 with interested parties directed to the Engage Victoria website to access the UDLP and make submissions.
	b) Provided to owners and occupiers, of land adjacent to the area/s to which an UDLP applies, informing them of the matters set out in Clause 4.7.5(c). The minimum period for comment must be 28 days	Owners and occupiers of land adjacent to the UDLP area were notified of the commencement of the public exhibition period for the UDLP by registered post, and directed to the Engage Victoria website to access the UDLP and make submissions.
4.7.7	A UDLP submitted to the Minister for Planning for approval under Clause 4.7.1 must be accompanied by:	
	a) A summary of the consultation carried out under Clause 4.7.5 and Clause 4.7.6, all written comments received and a response to issues raised.	A Consultation Summary Report addressing the requirements of this clause was prepared following the completion of the Public Exhibition period and provided as part of the final submission of the UDLP for approval.
	b) Written advice from the UDAP addressing the extent to which the UDLP is consistent with all relevant matters set out in the Minister's Assessment 5 August 2022 made pursuant to the EE Act and the approved UDS	Written advice from UDAP has been provided and forms part of the final submission of the UDLP submitted for approval.
4.7.8	A UDLP may be prepared and approved in stages but an UDLP for any stage must be approved before commencement of development (excluding preparatory buildings and works under Clause 4.13.2) for that stage	The relocation of the Tram Terminus and associated works covered by this UDLP are not staged.

1.4 Community and Stakeholder Engagement

Consultation and engagement with key stakeholders and the local community has been undertaken throughout the development of this UDLP. The following section provides a summary of key consultation activities and feedback incorporated into the UDLP.

1.4.1 Yarra Trams

Yarra Trams is a critical stakeholder in the development of the Tram Terminus design.

Yarra Trams is committed to delivering transport services that are safe, reliable and meet the evolving needs of local communities. A significant number of compliance requirements need to be met to ensure safe and efficient use of the tram network. These compliance and operational requirements must be considered when design solutions for public realm and landscape interfaces with critical tram infrastructure.

Extensive consultation was undertaken with Yarra Trams with respect to the functional, operational, and legislative requirements to be incorporated into the design of the Tram Terminus. These requirements are discussed further at Section 3.2.

1.4.2 Urban Design Advisory Panel

The SRL East Urban Design Advisory Panel (UDAP) was established under Clause 4.7 of the Incorporated Document to provide ongoing design advice and guidance and advocate for high quality urban design, architecture, landscape architecture and land use planning outcomes to be integrated into the design of Project works at all scales.

UDAP has provided detailed urban design advice and feedback throughout the development of this UDLP through presentations, workshops and issue of detailed written comments.

1.4.3 Whitehorse City Council

Council were regularly consulted through the development of the Tram Terminus design. A targeted briefing outlining the key components of the UDLP and design response was provided to Council prior to the commencement of the public exhibition period, providing an opportunity for preliminary feedback to be provided ahead of Council's formal response.

1.4.5 Public Authorities

Consultation was undertaken with relevant public authorities through the development of this UDLP, including provision of pre-exhibition briefings to the Department of Transport and Planning (DTP), Melbourne Water and Heritage Victoria.

1.4.4 Public Exhibition

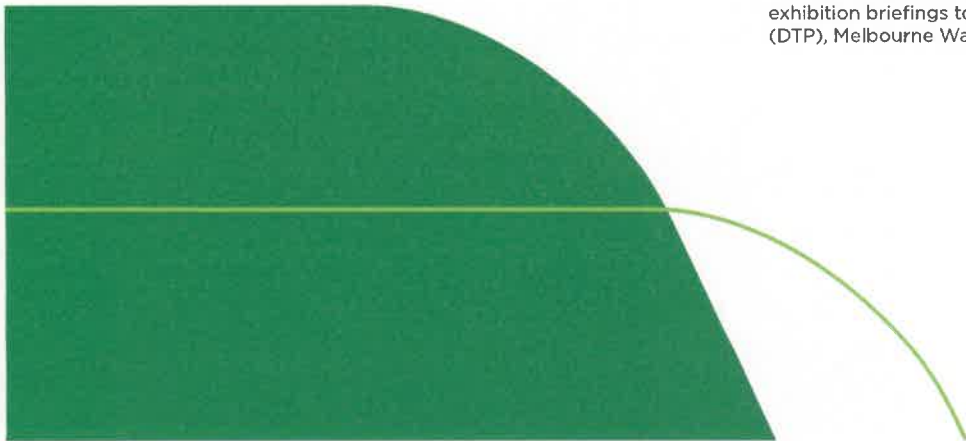
The UDLP was on public exhibition between 24 May and 25 June 2023. During the public exhibition period the UDLP was hosted on the Engage Victoria website along with supporting Project information and documentation to assist people in gaining an understanding of the Tram Terminus relocation and its relationship with the broader SRL East Project. The website also specified the time frames and format in which written comments on the UDLP were required to be submitted and phone and email contact details for SRLA.

A total of 76 submissions were received during the public exhibition period from members of the broader community, in addition to submissions from Heritage Victoria and the City of Whitehorse. The key issues raised in these submissions can be summarised as follows (not listed in order of priority):

- Increased weather protection on the platform.
- Requests for additional amenities/infrastructure to be delivered on the platform.
- Need for improved integration and connectivity between the Tram Terminus, the future SRL station, and existing public transport and retail services to the south.
- Support for increased landscaping and tree planting
- Support for inclusion of design features increasing accessibility and safety
- Concerns regarding loss of car parking.
- Incorporation of artistic/creative design elements reflecting Box Hill's history and cultural identity.

These submissions have been considered and updates made to the Tram Terminus design and this UDLP in response, as and where appropriate.

A detailed summary of all written comments received and the Project responses forms part of the UDLP submission to the Minister for Planning for approval.



2. Site context

2.1 Location and Tenure

The relocated Tram Terminus will be sited approximately 40m west of its current location, on the opposite side of the pedestrian crossing which links Market Street and the north side of Whitehorse Road, via the central median.

The area subject to this UDLP includes the Tram Terminus site and surrounding land required for access, ancillary infrastructure and landscaping. The UDLP boundaries are defined by that section of the Whitehorse Road central median located between Nelson Road to the west and Market Street to the east. It is irregular in shape, with a length of approximately 190m and total area of approximately 4,390m².

The Tram Terminus site is entirely located within the Whitehorse Road reserve. Whitehorse Road is a declared arterial road under the Road Management Act 2004 managed by DTP.



Figure 5. Site Location

2.2 Existing Conditions

The proposed Tram Terminus site is currently a public car park, with vehicular access via a one-way loop road connecting to Whitehorse Road (south). The existing tram tracks, overhead wires, and supporting masts and safety fencing are located north of the car park.

A connecting footpath provides access through to the existing Tram Terminus to the east via a small plaza. This area has been landscaped with low level shrubs and garden beds and includes the Journey's Seed sculpture, which was commissioned as part of construction of the existing Terminus in 2003 and provides a key focal point and character element.

The site slopes from south to north, with the change in levels currently managed through benching and concrete retaining walls.

Additional landscaping within the site is located to the south and west. A large Elm tree (*Ulmus x hollandica*) and three large mature Peppercorn trees (*Schinus molle*) are located on the southern boundary, with a large garden bed containing several mature trees and large shrubs located to the west of the car park. The balance of the site, between Clisby Court and Nelson Road, is grassed.



Figure 6. Grass between the existing tram tracks (facing west)



Figure 7. Grass transitioning to concrete between the existing tram tracks (facing east)



Figure 8. Level change and existing retaining wall on northern side of Tram Terminus site (viewed from Whitehorse Road).



Figure 9. View from relocated tram platform to north - ATO building and multi-level car park



Figure 10. View to western end of the Tram Terminus site showing existing landscaping within the Whitehorse Road median.



Figure 11. Existing streetscape north of Tram Terminus site - limited landscaping and canopy cover.

2.2.1 Whitehorse Road Central Median

The Tram Terminus site is located at the western end of the Whitehorse Road central median and has direct road abutments to the north, south, and west.

The median is approximately 600m in length and is 25m at its widest point. Extending through Box Hill's commercial centre, it contains a number of large mature canopy trees and areas of formal landscaping and is a key landscape and character element. Its central section, between Watts and Market streets, provides a local open space function with paths, paving, and seating provided through the length of the space.

A signalised pedestrian crossing and path is located within the median directly north of the Market Street pedestrian mall. This crossing forms the primary pedestrian access route between the north and south sides of Whitehorse Road, as well as to the existing Tram Terminus from Box Hill Station. The area directly adjacent to the Tram Terminus incorporates a small outdoor dining area and takeaway food tenancy located to the south, essentially forming a forecourt to the platform.



Figure 12. Southern boundary of existing car park, showing Peppercorn trees



Figure 13. Tram mosaic located on platform of existing Tram Terminus.



Figure 14. Replica White Horse Hotel statue and portico, western end of Tram Terminus site.



Figure 15. Pedestrian crossing within Whitehorse Road median, looking south to Market Street (Tram Terminus site to right).



Figure 16. Pedestrian crossing within Whitehorse Road median, looking north to ATO building (Tram Terminus site located to the left).



Figure 17. 'Journeys Seed' sculpture.



Figure 18. Example of emerging high density built form to the west (850 Whitehorse Road)



Figure 19. Heritage-listed Former Railway Hotel (956 Whitehorse Road), with traditional two storey "main street" commercial buildings extending west on Whitehorse Road.

2.3 Surrounding Context

The Tram Terminus site is located within Box Hill's commercial centre, approximately 170m north of Box Hill Central Shopping Centre and railway station.

Box Hill is a designated Metropolitan Activity Centre and has been identified as a major focus for growth and investment within *Plan Melbourne 2017-2050*, the Victorian State Government's overarching planning strategy for Melbourne, with the railway and associated bus interchange forming a key public transport hub for Melbourne's eastern suburbs.

Land uses in immediate proximity to the Tram Terminus site are primarily commercial, with the prominent uses being retail shops and food and drink premises located within and around Box Hill Central shopping centre, located south of Whitehorse Road. The Australian Taxation Office (ATO) building at 913 Whitehorse Road provides a notable contribution to the extent of office space in the centre, with health and education uses also strongly represented, resulting in a genuine mix of land uses throughout central Box Hill. Beyond the retail/commercial core, lower scale residential development is the dominant land use.

Box Hill's original town centre "core" forms the immediate built form context around the Tram Terminus site. This has largely retained a traditional "main street" appearance, characterised by fine-grained double storey terraces built to the street inclusive of footpath weather protection. A number of these buildings are subject to local heritage protection, including a relatively intact sub-precinct on the southern side of Whitehorse Road dating from 1890 - 1930, approximately 120m to the east between Market Street and Watts Street.

Land further west on Whitehorse Road and within the abutting precincts to the north and south is currently undergoing substantial levels of redevelopment and change with an emerging character of multi storey apartment buildings and residential hotels. Prominent examples of this development type include the ATO building (20 storeys), Whitehorse Towers (36 storeys), and Sky One (36 storeys).

It is anticipated that these development trends will continue following construction of the relocated Tram Terminus, with higher rise buildings forming an increasingly dominant backdrop to views from the platform. Notably, Vicinity Centres, owner of Box Hill Central, is currently seeking approval for the redevelopment of its northern landholdings for seven buildings between 19 and 48 storeys, directly opposite the western end of the Tram Terminus site.

2.4 Planning Controls

The Tram Terminus site is located within the City of Whitehorse and is subject to the Whitehorse Planning Scheme.

Specific Control Overlay - Schedule 14 (SCO14)

SCO14 applies the *Suburban Rail Loop East Incorporated Document, August 2022* to the site. The Incorporated Document provides the primary planning approval for the SRL East Project and outlines the relevant secondary approvals and compliance requirements to be met as part of its design, construction, and operation.

A key effect of the Incorporated Document is to exempt all land within SCO14 from compliance with all other planning scheme controls. As such, the requirements of the Transport Zone - Schedule 2 (TRZ2), and the Specific Controls Overlay - Schedule 15 (SCO15), which also apply to the site, are not applicable to this UDLP.



Figure 20. Specific Controls Overlay - Schedule 15



Figure 21. Specific Controls Overlay - Schedule 14

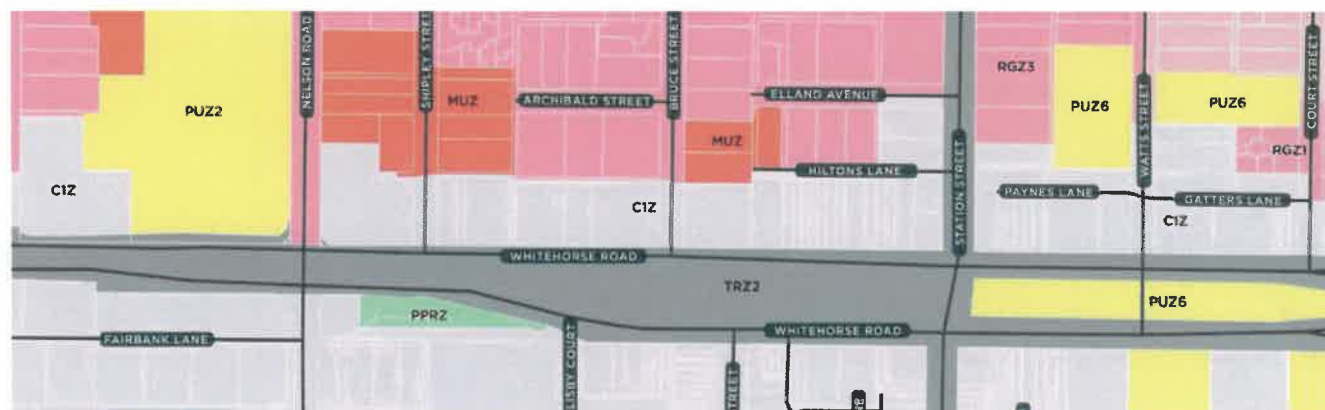


Figure 22. Planning Zone Map



3. Project Description

3.1 Scope of Works

The scope of works associated with relocation of the Tram Terminus and covered by this UDLP include:

- Demolition of the existing tram platform and associated infrastructure, and construction of a new tram platform within the existing commuter car park (to be removed).
- Reconfiguration of the existing tram tracks to the western end of the site to provide for a “scissors” crossover.
- Installation of overhead wiring and support structures, shelters, fencing, lighting, driver amenities and other structures.
- Provision of maintenance access and parking bays to the south (direct access via Whitehorse Road) and north (access via tram tracks), required for maintenance of tram infrastructure and the HV kiosks.
- Construction of a pedestrian access ramp between the tram platform and the existing path/crossing located within the Whitehorse Road median.
- Establishment of permanent and temporary landscaping (where required to be removed to facilitate future works).

3.1.1 Functional and Operational Considerations

Consultation with Yarra Trams and Public Transport Victoria (via DTP) has resulted in incorporation of the following functional and operational considerations in the design of the Tram Terminus, as reflected through this UDLP.

Platform and track configuration

The design provides an “island” platform with tracks either side as opposed to side platforms. This will minimise queuing of trams waiting for a platform and associated service delays by facilitating changeover via the “scissors” crossover. This configuration also provides for two trams to be parked at the terminus at any one time.

Future network improvements

The siting and alignment of the tram platform has allowed for a potential extension through to Box Hill Town Hall to the east, if required (subject to future detailed engineering design).

Maintenance

Yarra Trams’ standard designs for driver/staff amenities, fencing and platform furniture have been incorporated in the design to conform with existing operational and regulatory requirements, as well as allowing for timely and efficient maintenance in line with existing contracts and processes. The site layout also provides safe access and parking for maintenance vehicles north and south of the tram platform, providing access to tram and utility infrastructure.

Landscaping

Landscaping adjacent to tram infrastructure has been designed to meet Yarra Trams requirements, particularly with respect to clearance to overhead lines and generation of leaf litter to tracks. Areas to be grassed at the western end of the site have also been limited to where suitable grades and dimensions can be achieved to facilitate mowing and other maintenance activities.

Weather protection

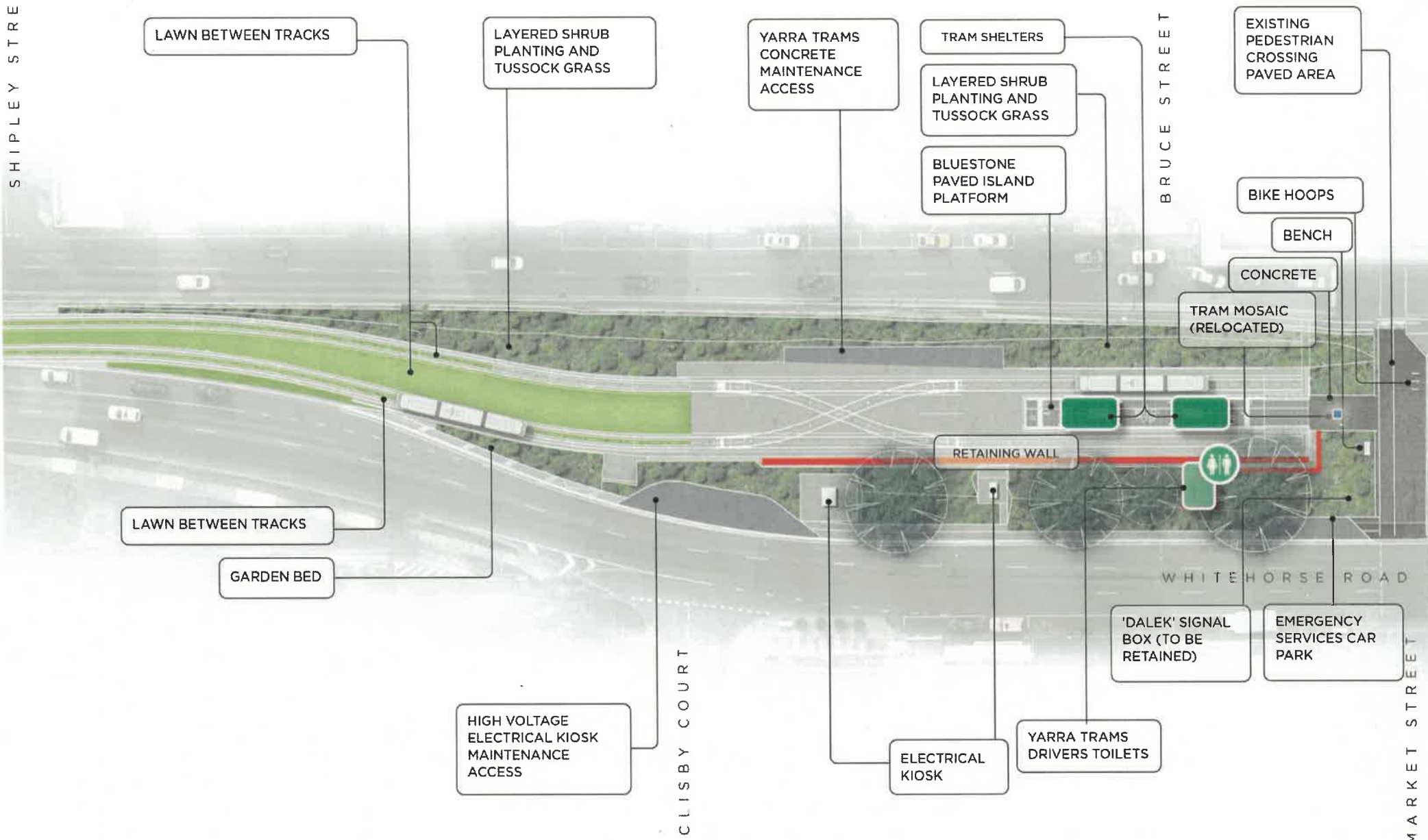
The location and extent of weather protection able to be provided on the tram platform has been dictated by a series of interrelated regulatory, operational and spatial requirements, as follows:

- DDA/DSAPT requirements regarding circulation space on the platform, which prevent an additional shelter being provided due to the physical barrier posed by seating/dividing glass to movement across the width of the platform.

- Horizontal and vertical clearance requirements of key operational infrastructure, including the overhead wiring poles and communications, electrical and operational control (OCMS) cabinets. This infrastructure must be located on the platform and cannot be relocated from its proposed position in the centre of the platform, due to the location of other tram infrastructure and associated clearance requirements at the eastern and western ends of the platform.

Despite these constraints, the overall level of coverage achieved on the platform through this UDLP exceeds Yarra Trams’ typical requirements for a platform of equivalent size and function.

SHIPLEY STREET



LAWN BETWEEN TRACKS

LAYERED SHRUB PLANTING AND TUSSOCK GRASS

YARRA TRAMS CONCRETE MAINTENANCE ACCESS

TRAM SHELTERS

LAYERED SHRUB PLANTING AND TUSSOCK GRASS

BLUESTONE PAVED ISLAND PLATFORM

EXISTING PEDESTRIAN CROSSING PAVED AREA

BIKE HOOPS

BENCH

CONCRETE

TRAM MOSAIC (RELOCATED)

RETAINING WALL

LAWN BETWEEN TRACKS

GARDEN BED

HIGH VOLTAGE ELECTRICAL KIOSK MAINTENANCE ACCESS

ELECTRICAL KIOSK

YARRA TRAMS DRIVERS TOILETS

'DALEK' SIGNAL BOX (TO BE RETAINED)

EMERGENCY SERVICES CAR PARK

BRUCE STREET

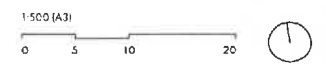
CLISBY COURT

WHITEHORSE ROAD

MARKET STREET

BOX HILL CENTRAL

Figure 23. Site Layout Plan



Note: these drawings are technical in nature, further context and information may be found in Appendix A.

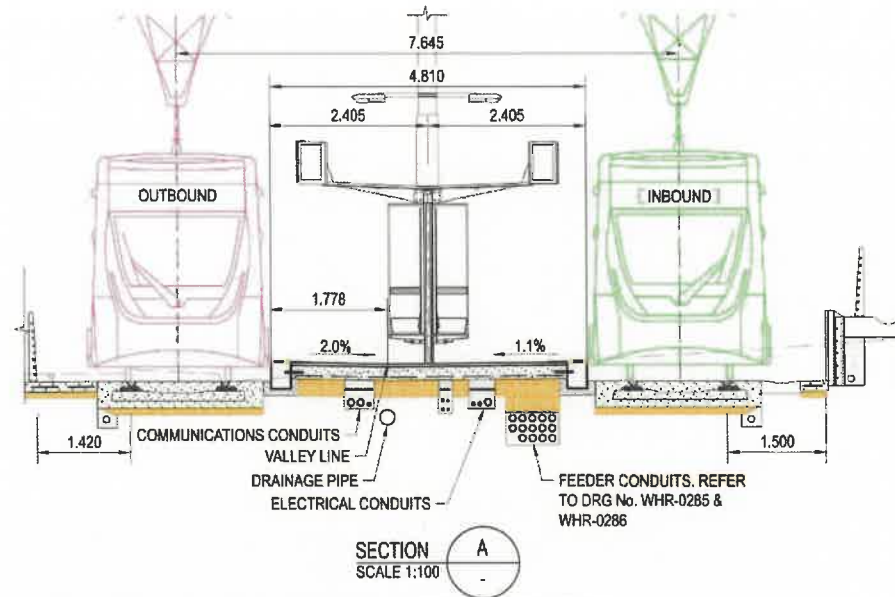


Figure 24. Excerpt from engineering drawings - section of tram platform showing dimensions of key elements.

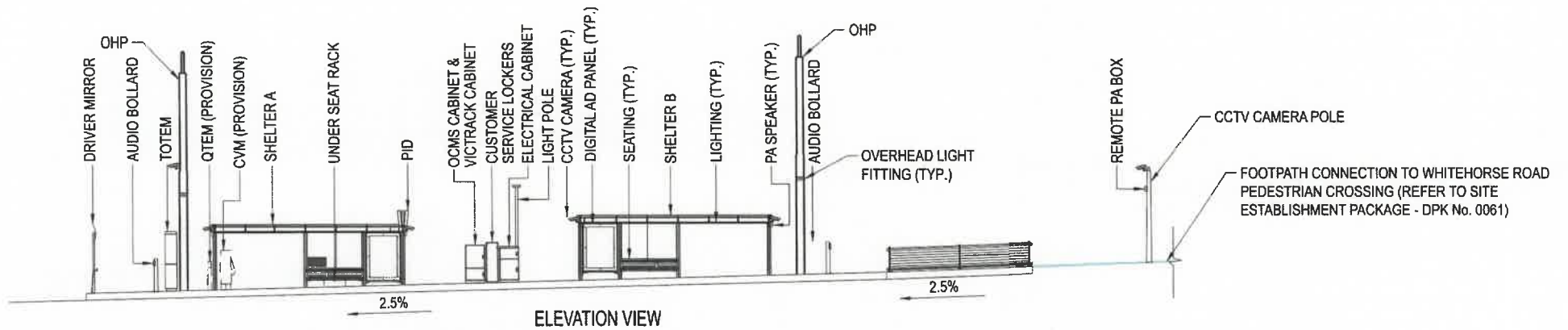


Figure 25. Excerpt from engineering drawings - east-west section through site, showing grade of pedestrian ramp and location of key infrastructure.

3.2 Staging and Integration with Future SRL Station Precinct

The relocation of the Tram Terminus is the first stage of a broader package of improvements to transport networks and the public realm to be delivered through the SRL East Project.

This UDLP has carefully considered the implications of these future works to ensure that the siting, design and layout of the Tram Terminus will not conflict with or otherwise prejudice the design and construction of these future works. In particular, the design of structures within the site has intentionally been kept simple, with minimal customisation or bespoke treatments, so as not to preclude future modifications to achieve a more site responsive outcome consistent with any future precinct-wide design strategy developed through a future UDLP.

It also provides for critical components of the Tram Terminus, including the platform, crossover and electrical infrastructure to be sited in their permanent location, minimising the need for future rework and disruption following completion of the broader SRL precinct works.

Due to the timing of future works and/or location of construction footprints, some of the design treatments proposed through this UDLP to be delivered as part of the Tram Terminus location are temporary. These treatments have been selected to ensure that a high quality, integrated design response which makes a positive contribution to surrounding landscape and visual amenity will be achieved at all stages of the development.

The following diagrams provide a summary of the key construction stages and how these will impact development and landscape treatments within the Tram Terminus site over time.

Stage 1: UDLP works - relocation of Tram Terminus (2023)

Refer to Figure 27.

- Tram Terminus (platform, furniture/fit out and crossover), connecting ramp and HV substations constructed in permanent location.
- Interim landscape treatment (shrub and ground cover planting) delivered north and south of the tram tracks.
- Construction of Interim driver amenities building and maintenance access points.
- Retention of mature Elm and Peppercorn trees on the southern boundary (one being subject to further arboricultural review).

Stage 2: Future works - Construction of SRL station and Whitehorse Road realignment (2025-2030)

Refer to Figure 28.

- Modification of interim landscape treatments at the eastern end of the site to accommodate Whitehorse Road diversion
- Modifications to surrounding pedestrian network and access.

Retention of trees on the southern boundary through the station construction period to be confirmed through detailed design of the road diversion (by others).

Stage 3: Future works - Completion of SRL station and surrounding works (2030 onward)

Refer to Figure 29.

- Realignment of Whitehorse Road to the north and modification of tram infrastructure west of the Terminus, where required, to align with the final road configuration.
- Delivery of new linear open space and connecting pedestrian and cyclist trails to the south.
- Construction of ultimate driver amenities, maintenance access Western platform entrance constructed to the Tram Terminus between HV kiosks and retained trees (where feasible).
- Market Street pedestrian crossing re-instated in existing location.

Trees identified for retention in this stage are subject to engineering design in Stage 2.



Figure 1 Existing conditions

NTS 

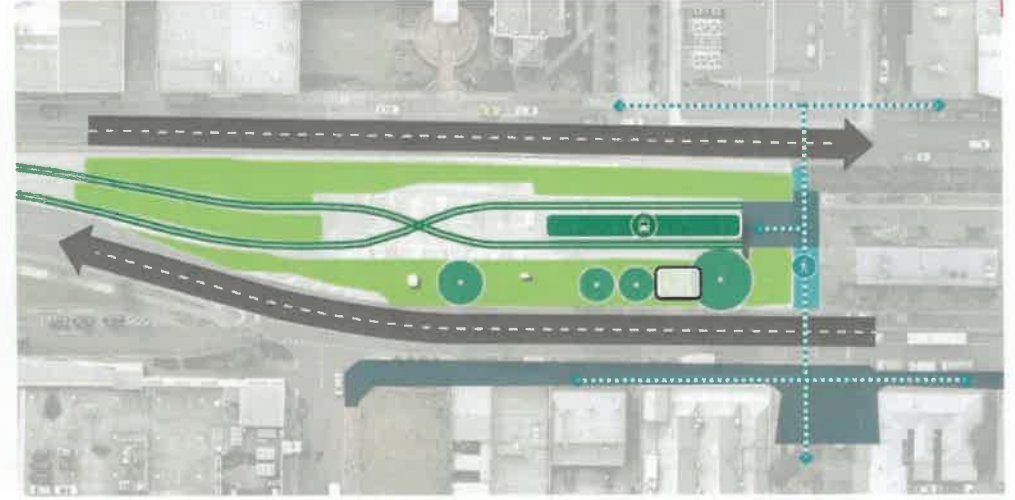


Figure 2 Stage 1 - Relocation of the Tram Terminus (proposed under this UDLP)

NTS 

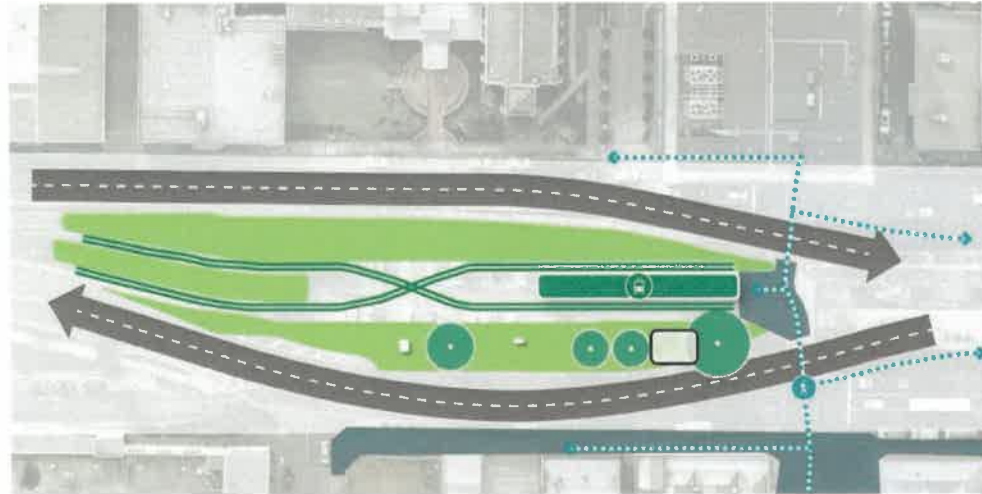


Figure 3 Stage 2 - Diversion of Whitehorse Road and construction of SRL station

NTS 

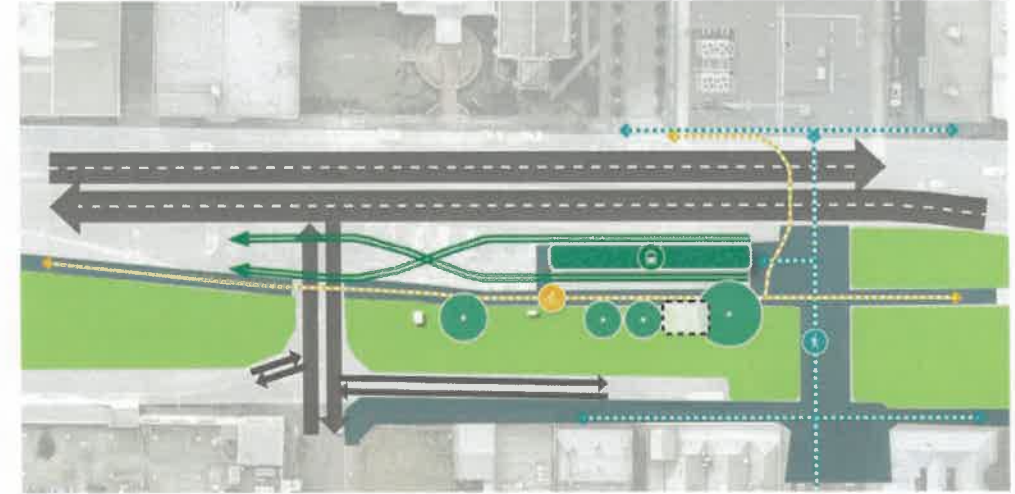






Figure 4 Stage 3 - Completion of SRL station, realignment of Whitehorse Road to the north and conversion of southern road reserve to linear open space (design and layout to be confirmed through future UDLP)



NTS 



LEGEND

-  Tram platform
-  Tram tracks
-  Road alignment

-  Proposed landscaping
-  Final public realm surface treatment

-  Retained existing tree
-  Driver toilets

-  High voltage electrical kiosk
-  Key pedestrian route

-  Key cycle route
-  Potential to relocate driver toilets as part of Main Works

4. Design Response

4.1 Design Approach

This UDLP has been shaped by and responds to a number of competing considerations, specifically:

- Spatial constraints posed by the location and footprint of future works associated with construction of the SRL station and surrounding road/public realm upgrades. These limit the type and location of design and landscaping treatments, as well as supporting facilities and infrastructure, which can be delivered 'upfront' as part of the Tram Terminus relocation.
- Ensuring the design and siting of works delivered under this UDLP do not conflict with or otherwise prejudice the design and delivery of future Project works in accordance with the requirements of the UDS and Surface and Tunnel Plans for the Box Hill precinct.
- Achieving a design response which stands on its own merits in terms of visual, functional and operational considerations, and unites a diverse range of individual structures, many of which are prefabricated or have been designed to standard requirements, in a way which positively contributes to the existing public realm.
- Meeting the operational, maintenance and service requirements of Yarra Trams.
- Retaining sufficient design flexibility and adaptability to allow for modifications in line with precinct-wide urban design and public realm treatments, established through future UDLP processes.

In preparing a design response which successfully addresses these competing elements, the Design Principles and Place Specific Requirements for Box Hill outlined in the SRL East UDS have been used as a guiding framework to ensure that the final Tram Terminus design contributes to realising the overarching outcomes of the broader SRL East Project within this precinct.

The key ways through which this has been implemented through the UDLP design are:

- Prioritising tree retention in determining the location and extent of built form and hard surfacing, in line with the future vision for Whitehorse Road as a "high amenity boulevard" (Place-specific Outcome BOX1 (UDS, 2022)) and focus on increased canopy cover and urban greening within the Box Hill precinct as a whole (Place-specific Outcome BOX4 (UDS, 2022))
- Utilising colours and materials from the surrounding public realm and incorporating existing site features to visually connect the various built form elements within the site, achieving a unified, holistic design response which is place-specific and has a distinct sense of identity (Place-specific outcome BOX 1 (UDS, 2022)).
- Embedding Universal Access and Safer Design principles in the planning and design of the tram platform, connecting paths and surrounding landscaping treatments, in order to provide a user-focused, welcoming space which encourages activation of the surrounding public realm and pedestrian movement networks (Principles UD4 and UD6 (UDS, 2022))
- Selecting landscaping treatments and plant species which maximise growth, visual interest and biodiversity values whilst minimising maintenance and irrigation requirements, providing a design which is robust, resilient and attractive in the short, medium and long term.

The following section provides a detailed assessment of how this approach, informed by the SRL East Urban Design Strategy (2022), has been translated in the design and treatment of specific components of the Tram Terminus through this UDLP.



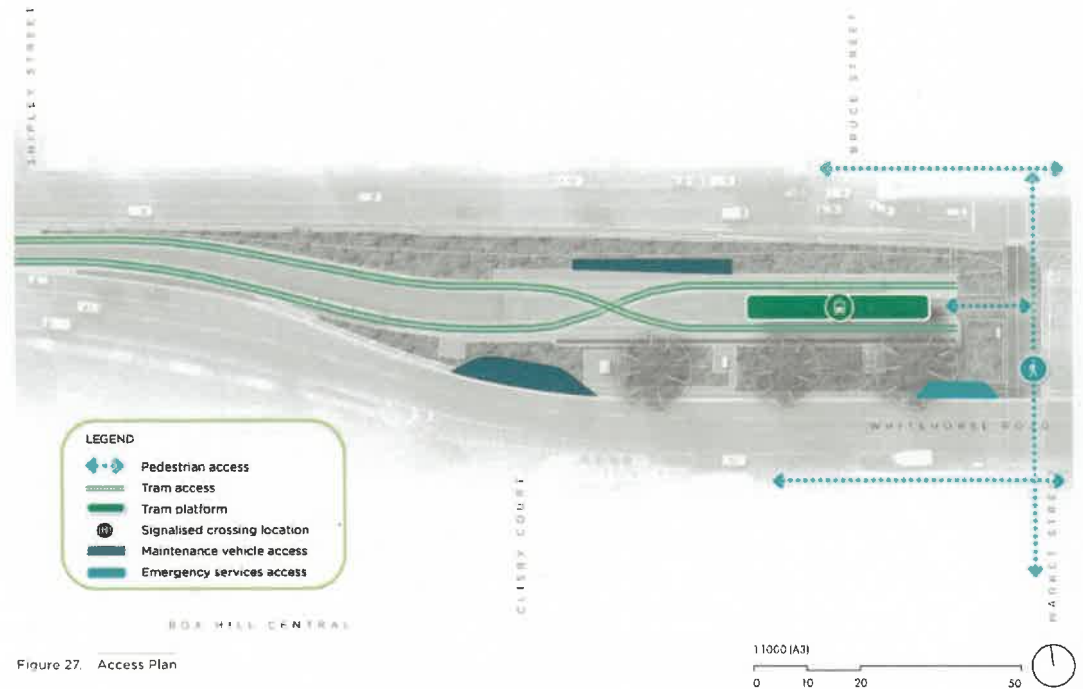
Figure 26. Artist's impression (indicative only) - Tram Terminus viewed from the central median crossing (northern end)

4.2 Key Elements

4.2.1 Siting and Access

Whilst the location of the Tram Terminus has largely been determined by the alignment and geometry of the tracks and platform dimensions, its final location has been finessed to maximise opportunities for integration and connectivity with the future SRL station entrance located to the north via the pedestrian crossing.

By shifting the platform as far east as practical, connectivity with the surrounding path network has been maximised through limiting the connecting ramp to only 4.5m and minimising grades (maximum 3.5%), providing a direct, level path of travel from the median crossing. This also allows for clear sight lines between the tram platform and broader public realm, including the signalised crossings on the north and south sides of Whitehorse Road, creating a sense of openness and safety.



4.2.2 Built Form

The built form components of the Tram Terminus development are relatively minimal, being limited to the platform itself, the shelters, the interim drivers' amenities building and the two HV kiosks.

Visual bulk has been minimised through the design of these structures, which are primarily light, open and modest in scale, maximising visibility between the tram platform and surrounding public realm. Where this cannot be achieved, such as with the HV kiosks, these structures have been sited outside of primary view lines and treated with ameliorative landscaping where needed.

The design response presented in this UDLP is intentionally “stripped back,” so as not to pre-empt or potentially contradict the development of an overarching design strategy for the SRL station and associated public realm improvements through a future UDLP, or compromise a consistent, coherent design outcome being achieved across the Box Hill precinct as a whole. In particular, Yarra Trams’ standard designs and/or products have been incorporated in lieu of more customised or bespoke treatments. These largely use clean, simple forms which will not detract or compete with the traditional “main street” character of the immediately adjacent streetscape to the east, as well as the future ‘boulevard’ treatment of the Whitehorse Road central median and emphasis on its landscape (rather than built form) character in the UDS.

This is intended to be an “interim” solution for the design and treatment of structural elements within the site, focusing on responding to the existing context whilst still maintaining sufficient flexibility for additional or changed design treatments to be provided to the Tram Terminus in the future if required to visually and functionally integrate it into the broader public realm once Project works are complete.

Figure 29. Artist's impressions (indicative only) - View of platform and shelter canopies (looking east)



Figure 28. Artist's impressions (indicative only) - View from platform looking west, showing shelters and canopies.



Shelters

Two 8m long, double sided shelters will be sited lengthwise along the tram platform. These will each include 2.4m long bench seating, a designated wheelchair/accessible waiting space, and an illuminated advertising panel on both sides of the shelter.

The shelters have utilised the standard design (Stoddard Evo) delivered across most of Yarra Trams network, in order to comply with relevant legislative requirements and Yarra Trams' standards for platform tram furniture. The use of a design consistent with that provided throughout Melbourne will also enhance legibility for passengers and pedestrians, clearly communicating the function of the space. The external surfaces will be powder-coated to provide a robust, durable treatment. Treatments will also be provided to facilitate future changes to colours and finishes, as required.

The location and scale of the shelters will result in improved weather protection and amenity to tram patrons. Notably, the overall area of proposed canopy coverage (53m², or 26.5m² per shelter) significantly exceeds that provided on the existing platform to the east (36m² across 3 shelters) due to the provision of a double-sided rather than single-sided canopy design. The shelters are also sited to maximise protection from wind, due to the location of the side and central glass panels in combination with the extra width of the canopies.

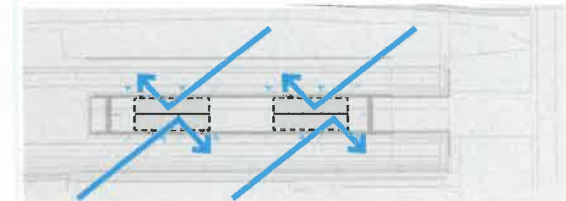
Opportunities for future enhancement and/or customisation of the shelter canopies to achieve a high quality, place-specific design outcome have been preserved through the inclusion of strip footings, which provide greater flexibility in accommodating changes to structural loads.



Figure 31. Example Stoddard 'Evo' shelter with double sided canopy



Existing Shelters -36m² canopy coverage. Wind protection from south only



Proposed Shelters -53m² canopy coverage. Wind protection from north and south

Figure 30. Wind protection diagram - existing and proposed tram platforms

Retaining walls

Due to the fall of the land from south to north, a retaining wall is required to be constructed parallel to the southern tram track in order to provide a level grade to retain the existing trees. This retaining wall will have a maximum height of 0.95m, including bluestone capping at the interface between the wall face and barrier fencing to provide a quality finish.

Textured concrete panels will be applied to the face of the retaining wall to both discourage vandalism and provide an improved visual outcome, given their visibility from the platform. The concrete will also be treated with an oxide colouring, with the final finish to be selected in consultation with Whitehorse City Council in accordance with their preferred colour palette for central Box Hill.

Fencing

Yarra Trams standard barrier fencing will be installed on both sides of the pedestrian ramp (with handrail), at the western end of the platform, and adjacent to the outer tracks to deter public access, in accordance with operational and safety requirements. Fencing on the south side of the tracks will be located to the top of the retaining wall.

The fencing design will be open and visually permeable, ensuring it will not be a dominant element when viewed from the platform and broader public realm. The proposed fence material is stainless steel which is durable and low maintenance.

Where practicable, landscape and other elements have also been incorporated into the site design to minimise the extent of fencing required to be provided for safety purposes, for example through the inclusion of pedestrian buffer planting west of the station to deter access.

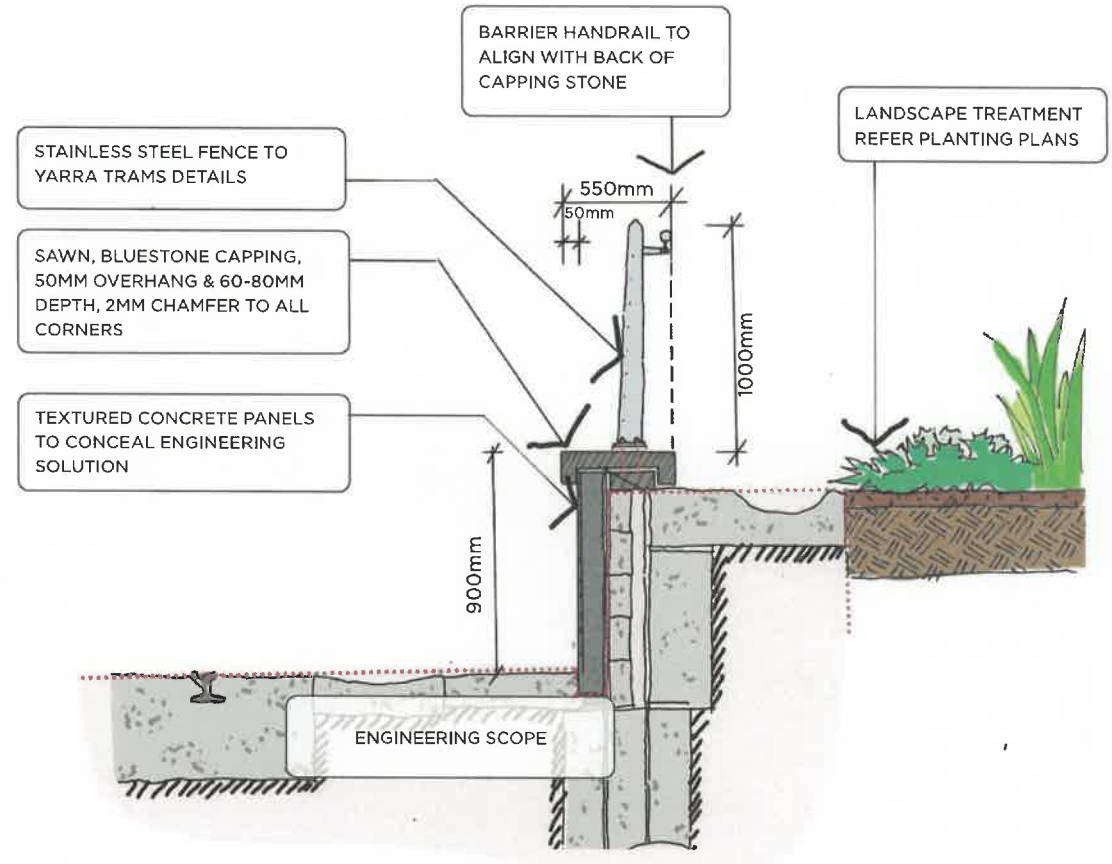


Figure 32. Typical retaining wall section (sketch detail - 1:2 @ A3)



HV kiosks

Two electrical high voltage (HV) kiosks are required to be constructed south of the tram tracks to provide operational power. These structures have been sited as far west as is practicable to minimise visual impacts on and interruptions to key view lines between the tram platform and connecting path networks, whilst also providing sufficient space for maintenance access and retention of nearby trees.

Each kiosk has a maximum height of 1.5m, and will be sited on concrete pads (topped with crushed rock) to meet authority maintenance requirements. A painted finish will be provided to the kiosks in a muted, recessive shade to minimise their overall prominence and visibility in context with surrounding landscaping. The final colour finish will be selected in consultation with Whitehorse City Council in line with their preferred colour palette for central Box Hill.

Driver amenities

Temporary drivers' amenities, comprising three pre-built toilets and attached drinking fountain, will be located on the south side of the tram tracks mid-way down the tram platform. The building has an overall height of 2.6m. Access is via a separate concrete path, with no direct access from the tram platform to discourage public use and provide greater levels of privacy to drivers and staff.

The amenities have been sited as far west as is practical in order to minimise their visibility from the platform entrance, whilst still being able to be quickly and conveniently accessed by drivers.

Following completion of the SRL station works, these facilities will be replaced with a permanent amenities building, the siting and design of which will be determined through a future UDLP process.



Figure 34. Example of drivers' amenity building (Tram Route 71, Bundoora)



Figure 35. Typical steel cabinet HV kiosk

4.2.3 Heritage, Culture and Place

Place-specific creative and/or bespoke design elements, including public art, have deliberately been excluded from this UDLP.

Due to the scale of change which will occur within central Box Hill as a result of the Project, a coordinated approach to integration of heritage, creative and/or cultural elements into the design of all Project works within Box Hill, consistent with the SRL Creative Strategy, is vital to ensure an effective and meaningful final outcome. This approach will be developed through the future UDLP for the SRL station and surrounding works, with any specific treatments to be provided to the Tram Terminus identified and implemented through this process.

Notwithstanding, this UDLP has included a number of heritage and urban design elements drawn from the immediately surrounding context in order to provide a sense of place and identity to the Tram Terminus in the interim. These include:

- Incorporation of the tram mosaic from the existing Tram Terminus as part of the landscape design and response.
- Utilising the distinctive heritage-style lighting and tram wiring poles within the balance of the central median and tram line to the west.
- Use of bluestone pavers on the tram platform itself, consistent with the existing public realm materials palette for Box Hill.
- Retention of the existing “Dalek” painted signal box, located east of the existing car park.

Due to constrained nature of the site and location of future Project works, the Journey’s Seed sculpture and White Horse Hotel replica statue have not been able to be incorporated into the Tram Terminus relocation. As much of the intrinsic cultural value of these items is location-specific - the Journey’s Seed having been commissioned specifically for the original extension of tram services to Box Hill in 2003, and the White Horse Hotel statue being a key landmark and ‘gateway’ feature in central Box Hill - they will be removed and placed into temporary storage to allow for detailed consideration of these values to be taken into account in determining their ultimate location within the future public realm.

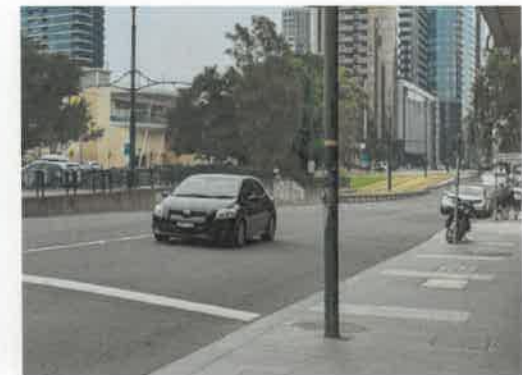


Figure 36. Place specific elements to be incorporated in design (clockwise from top left) - Dalek’ signal box (viewed from existing car park), tram mosaic, example of bluestone paving within public realm (right of frame, northern side of Whitehorse road), and heritage tram wiring pole.

4.2.4 Colour and Material Finishes

Material finishes detailed through this UDLP have been selected based on durability, simplicity, and adaptability.

Design treatments to the majority of built form elements within the development, particularly on the tram platform, have largely been determined by legislative requirements and/or Yarra Trams standards. This is considered to be appropriate given operational requirements, noting that these elements are primarily constructed in f comprise aluminium and/or tempered glass, both of which provide a high quality, robust finish which deters vandalism and are easily maintained. They also, by virtue of their simplicity, can easily integrate with more tailored or custom design elements if required in the future.

Place-specific treatments have been incorporated where practicable, with colour and material finishes primarily drawn from Whitehorse City Council's suite of preferred public realm materials, colour palettes and other treatments for central Box Hill. This includes the use of bluestone pavers and granite tactile indicators on the platform itself, and coloured paint finishes to the kiosks, lighting and overhead wiring poles. In addition, powder coating will be applied to the shelter canopies to allow for application of colour which compliments the seating and structure, as well as facilitation potential future colour changes.

Final colour selection to these elements will be confirmed with Council and UDAP prior to fabrication of the shelters, to ensure a consistent and complimentary response both within the site itself and the surrounding public realm.

Material Palette



1 Bluestone pavers



2 Precast concrete kerb and asphalt



3 Stone tactile



4 Stoddart EVO shelter



5 Aluminium seating



6 Yarra Trams standard barrier fencing



8 Bike hoop



9 Exposed aggregate concrete



7 Bluestone wall capping



7 Options for concrete finish/panel (retaining wall)



7 Options for concrete oxide treatments (retaining wall)

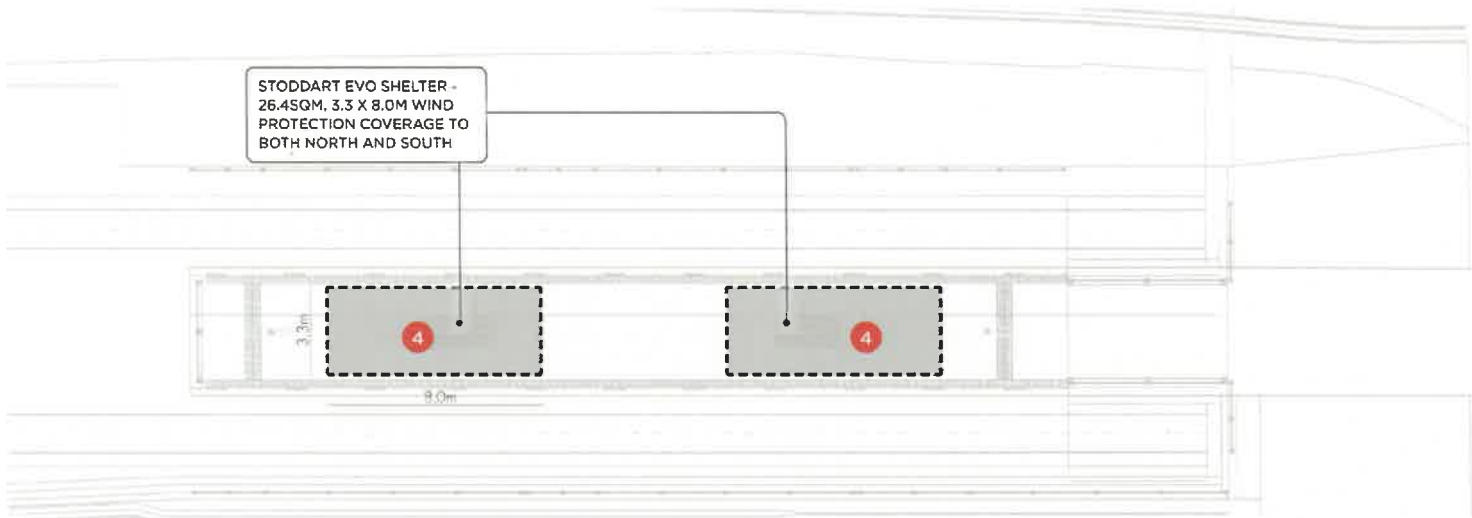


Figure 37. Platform shelter roof plan numbers relate to materials palette key:

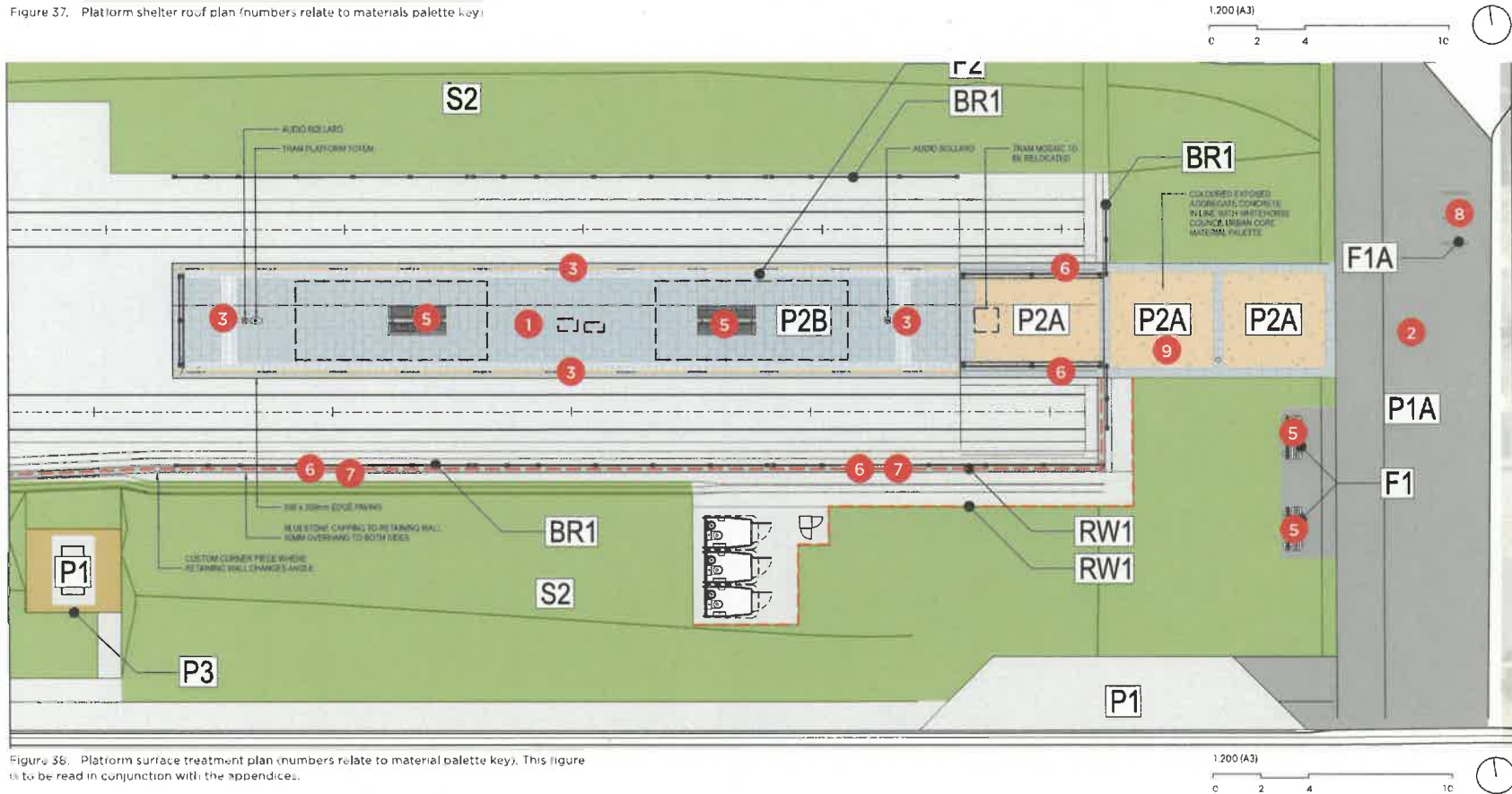


Figure 36. Platform surface treatment plan (numbers relate to material palette key). This figure is to be read in conjunction with the appendices.

4.2.5 Landscape

The landscape response has primarily sought to visually enhance, rather than disguise, the presentation of built form within the site when viewed from the surrounding public realm. Hard surfacing has been minimised and rationalised as much as possible in order to maximise the area available for planting. A key consideration has also been the need to maintain clear, open sight lines between the tram platform, connecting paths and the surrounding public realm whilst still providing a high quality and visually interesting design outcome.

Temporary landscaping (approximately 7 years)

Much of the landscaping proposed in this UDLP will be removed or altered through future works associated with the construction of the SRL station. This will be particularly marked along the northern boundary of the site following the realignment of Whitehorse Road to the north once the SRL station has been constructed, as the footprint of these future works takes up the entire northern landscape batter, up to the northern edge of the tracks.

Landscaping to the south of the Tram Terminus will also be impacted due to the footprint and alignment of the temporary diversion of Whitehorse Road required to facilitate the station excavation, as this results in a "pinch point" at the eastern end of the Tram Terminus site and removal of all landscaping at the north-east and south-east corners.

The landscape treatments proposed through this report have been designed to provide an attractive, high quality setting for the Tram Terminus and surrounding public realm during broader construction works, within these constraints. This has primarily been achieved by providing ground covers and tussock grass planting, which can achieve dense coverage quickly, interspersed with low shrubs for colour and visual interest, around the perimeter of the site. Further to the west, planting has been limited to turf grass only to meet Yarra Trams clearance requirements to tram infrastructure. This will assist in "breaking up" the extent of hard surfacing and soften the overall visual impact of tram infrastructure in this part of the site.

Opportunities for inclusion of temporary canopy tree planting as part of the landscape response were significantly constrained by locational restrictions due to clearance requirements to tram and other critical infrastructure. Whilst this could be accommodated within the area immediately north of the tram tracks, the time frames for the permanent realignment of Whitehorse Road and associated works to be delivered in this location would not allow for trees to establish or provide meaningful amenity prior to needing to be removed.

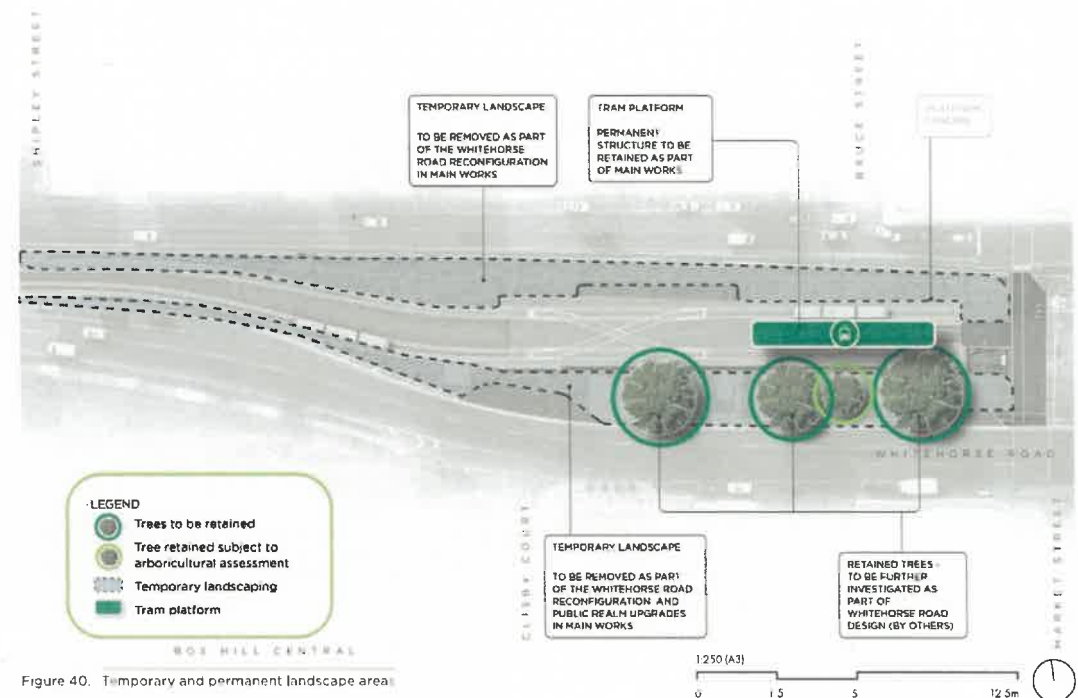


Figure 40. Temporary and permanent landscape area

Tree retention

The retention of existing trees has been prioritised in this UDLP, not only for their contribution to landscape amenity, but also to maintain visual continuity and connectivity with the balance of the Whitehorse Road central median. Established as a central planted reserve as early as the 1880s, its semi-formal avenue tree plantings are a defining character element within central Box Hill and one which is sought to be kept and enhanced through the "boulevard" treatment included in the UDS for this precinct.

Opportunities for retention of existing trees within the Tram Terminus site were constrained by the geometry and alignment of the tram tracks, particularly the inclusion of the scissors crossover and island platform which shifted the works footprint south, requiring the removal of the group of trees located in the garden bed west of the existing car park.

However, by significantly reducing hard surfacing associated with the southern maintenance access – originally a connecting driveway – two mature Peppercorn (*Schinus molle*) and one Elm (*Ulmus x hollandica*) tree on the southern site boundary have been able to be retained as part of the Tram Terminus relocation. An additional Peppercorn may also be retained subject to further arboricultural assessment, as shown in Figure 45.

The retention of these trees through future scopes of works, including the temporary diversion of Whitehorse Road, is subject to detailed engineering design and arborist investigations which will include investigation of the health and life expectancy of the trees at that time. If able to be retained, these trees will be protected during construction in accordance with detailed Tree Protection Plans under the supervision of the Project arborist.

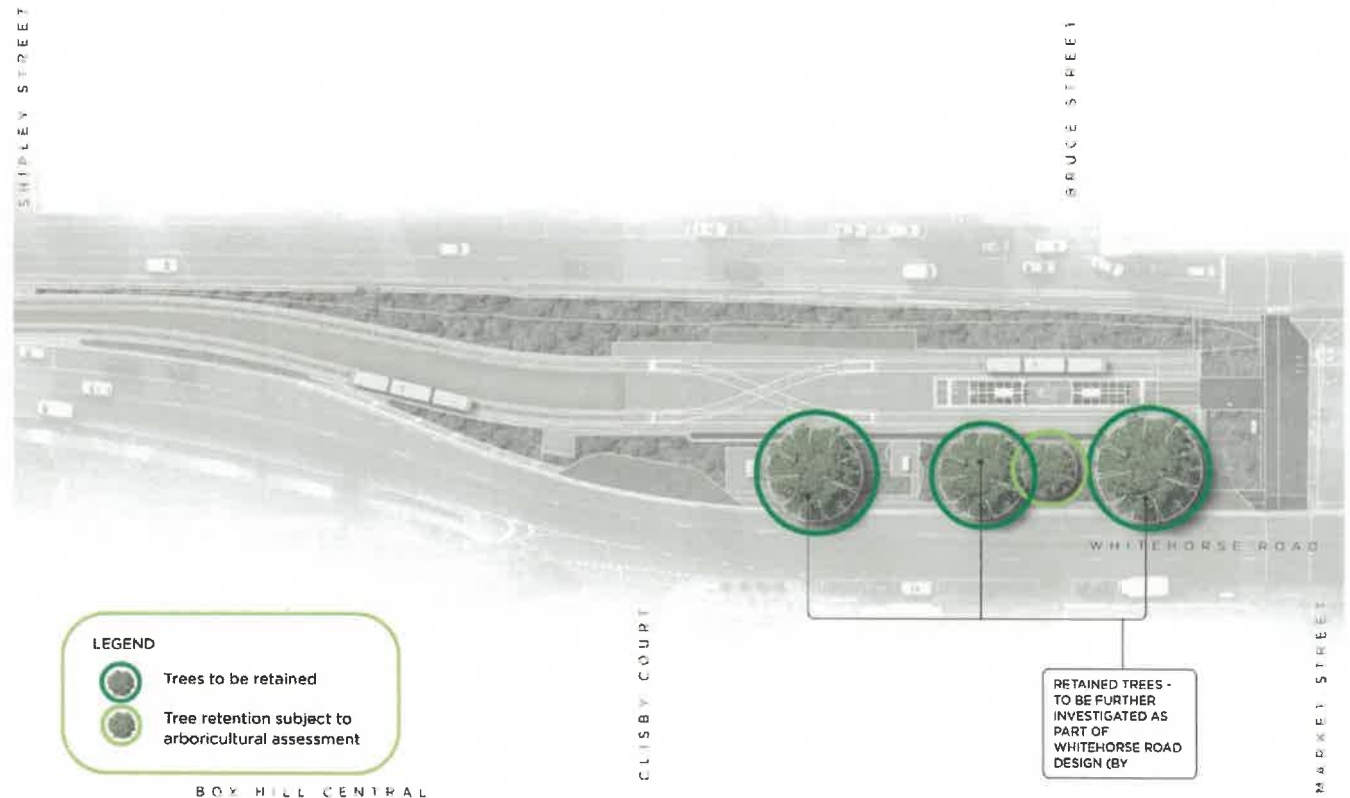


Figure 41. Trees to be retained (Refer Appendix A for scaled drawing)

Landscape screening

Ameliorative screen planting will be provided to the two HV kiosks and the driver amenities south of the platform. These structures are physically separated from the "core" public areas within Tram Terminus site and, whilst not overly intrusive in scale or form, require additional visual treatment given their location within dedicated landscape areas.

Given the need for continued access to these facilities, the design and location of planting is primarily aimed at softening and screening their appearance when viewed from the Tram platform or surrounding public realm, rather than a more robust response which could compromise accessibility or ongoing maintenance.

Following construction of the SRL station and delivery of the linear open space to the south, the visibility of the HV kiosks from the public realm will be increased, with the potential for these to impact on landscape and visual amenity. Additional and/or enhanced screening treatments to the kiosks to appropriately mitigate these impacts will be assessed through the future UDLP for the SRL station and associated public realm works, to ensure any additional planting is considered holistically with the overarching landscape strategy for this open space.

Landscape documentation and maintenance

The specifics and details of the Landscape and Urban Design response will be refined and developed as part of the Design Phase Services. This documentation will be in accordance with the relevant Australian Standards. The documentation deliverables will be subject to a formal review process and subject to formal stakeholder comment close-outs before being issued for construction.

The maintenance of the landscaped areas delivered through this UDLP will be undertaken by the Managing Contractor during the Early Works construction period. Once these works are completed, SRLA will negotiate ongoing maintenance responsibilities with the relevant authorities.

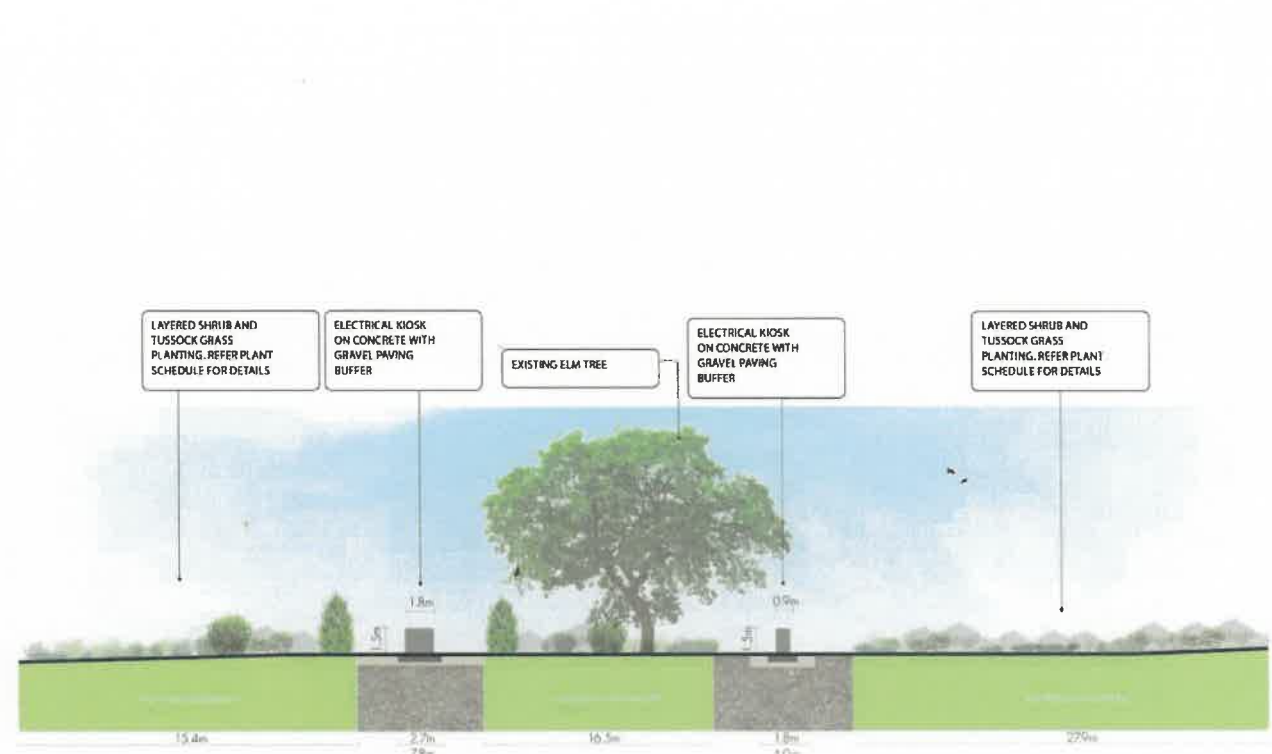


Figure 42. Section showing landscape screening to substation (viewed from south)

Planting palette

The planting palette included in this UDLP has been designed to visually respond to existing landscape treatments within the surrounding public realm, whilst also addressing safety, maintenance and operational considerations regarding the height, location and characteristics of planting able to be delivered.

The plants selected have been chosen provide colour, interest and form, allow clear sight lines and be proportionate to the human scale whilst also establishing quickly. Planting adjacent to paths incorporates low, compact species which are suitable for heavily trafficked environments and will not pose a tripping hazard through encroachment of leaves or branches.

Drought tolerant species have been selected to reduce demand for irrigation, contributing to climate resilience and minimising ongoing maintenance requirements. Flowering natives have also been included in all planting mixes to encourage bees and other pollinators, establishing 'pollinator pathways' or corridors through the Tram Terminus site which can be extended and enhanced through additional planting within the future linear open space to the south, to be detailed through a separate UDLP process.

Low planting mix

A selection of ground covers, succulents and low shrubs and grasses that will provide visual amenity whilst preserving sight lines through the space.

Medium planting mix

Shrubs and tufting grasses to typical 0.5-1.0m height. These plants have been chosen for their aesthetics, dense growth habit and proven robustness within roadside plantings.

Pedestrian buffer planting mix

These plants have been selected to act as a pedestrian buffer to prevent people taking short-cuts across Whitehorse Road. They are tough, robust plants with dense foliage which will deter unwanted pedestrian movement across Whitehorse Road.

Screening planting mix

The intent of this mix is to provide some screening to the electrical kiosks and drivers toilet facilities, both from Whitehorse Road and from the tram platform.

The mix comprises of a variety of medium to large shrubs, with dense foliage to typical a height of 1.5m and taller. The taller plants in the mix, such as the *Banksia* or the *Syzygium*, have a tight, dense form and do not produce large limbs or branches, reducing potential maintenance requirements.

As part of preparation of detailed landscape plans for construction, the final placement of this mix will be carefully considered to ensure it does not impact on sight lines or create 'hidden' areas.

Low planting mix



Medium planting mix



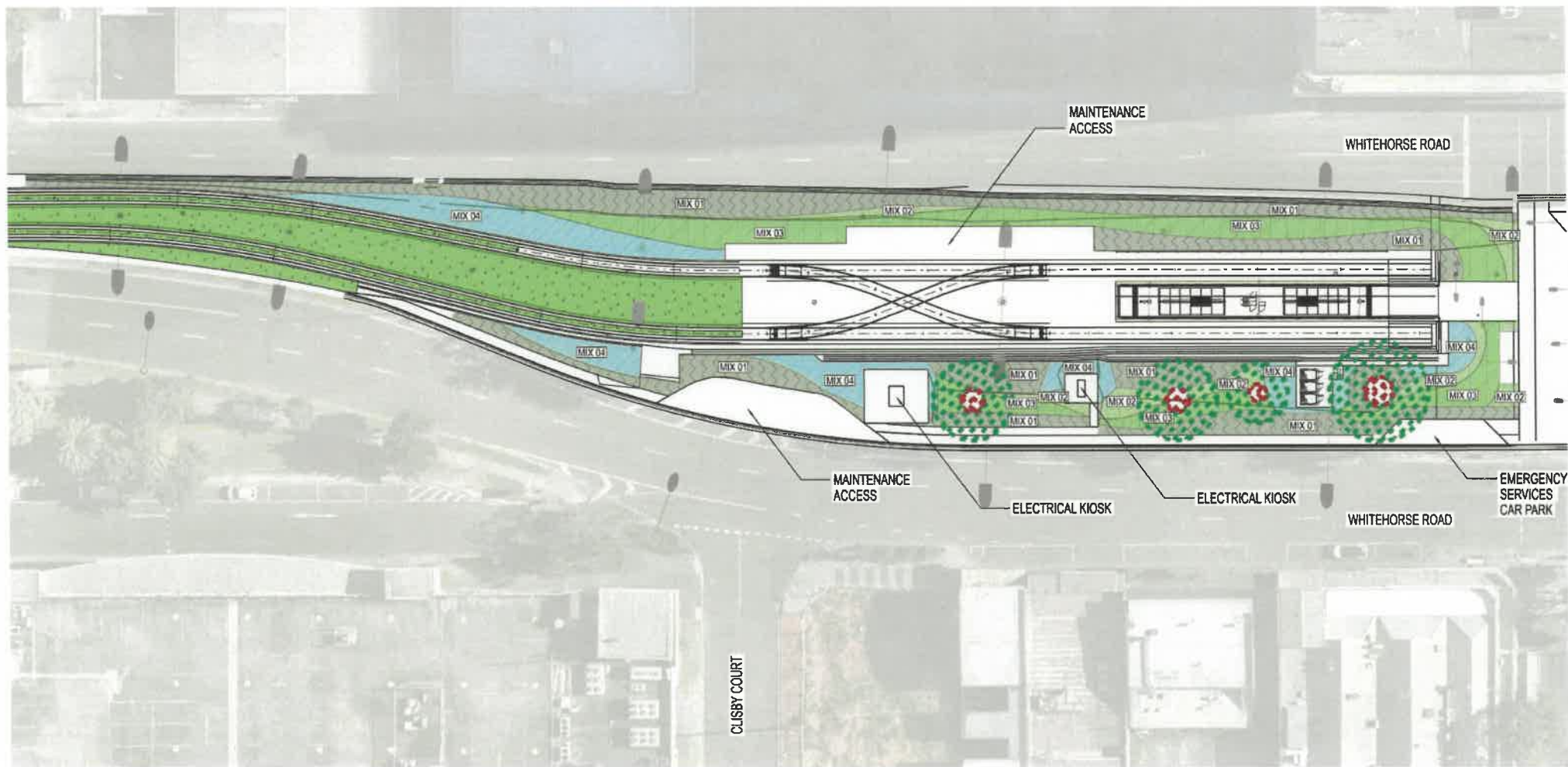
Pedestrian buffer planting mix



Screening planting



Figure 43. Proposed planting palette



LEGEND

LOW PLANTING MIX 01
 PROSTRATE SPECIES NOT TO BE PLANTED
 WITHIN 1m OF PATHS AND TRAM TRACKS
 DENSITY: 4-6 PLANTS/m²

PEDESTRIAN BUFFER PLANTING MIX 03
 TYPICALLY 1.2m HEIGHT TO BE PLANTED
 ALONGSIDE MIX 02 AS A CONTRAST OF
 SPECIES
 DENSITY: 4-6 PLANTS/m²

GRASS
 DROUGHT TOLERANT
 GRASS SEED MIX TO
 BE APPLIED VIA HYDRSEEDING

MEDIUM PLANTING MIX 02
 TYPICALLY 1.2m HEIGHT WITH ROBUST
 NATURE. TO BE PLANTED ALONG ROADSIDE
 DENSITY: 4-6 PLANTS/m²

SCREENING PLANTING MIX 04
 TYPICALLY 2m HEIGHT TO PROVIDE SCREENING
 TO ELECTRIC KIOSK AND DRIVERS TOILET
 FACILITIES TO AND FROM THE TRAM PLATFORM
 DENSITY: 4-6 PLANTS/m²



TPZ - TREE PROTECTION ZONE
 ALL PLANTING WITHIN TPZ MUST BE HAND EXCAVATED AND PLANTED
 NOTE: TPZ'S SIZE AND LOCATION SUBJECT TO ARBORIST REPORTS



SRZ - STRUCTURAL ROOT ZONE
 NO PLANTING WITHIN SRZ
 NOTE: SRZ'S SIZE AND LOCATION SUBJECT TO ARBORIST REPORTS.

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Figure 44. Concept Landscape Plan

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4.2.6 Safer Design

Incorporation of the Safer Design principles outlined at Objective 4.4 and Benchmark 5.1.10 of the UDS was a key consideration for this UDLP, due to the location and function of the Tram Terminus.

These principles have informed and been incorporated into the design of the Tram Terminus and its connections with the surrounding public realm through the following:

- Minimising the overall length of travel to and from the tram platform, with the landscape design incorporating dense planting on both sides of the pedestrian ramp to discourage movements outside of the designated path of travel
- Ensuring that access to the tram is free of visual clutter and obstructions through incorporation of wide access ways (4.8m), low level landscaping, and siting of built form outside key sight lines
- Providing consistent, 24-hour lighting on the platform and connecting paths
- Providing CCTV coverage across the full area of the platform and adjacent spaces and ensuring all structures are light, open, and low in scale
- Limiting planting on the eastern side of the site and around connecting pathways to low level shrubs and groundcovers to minimise potential obstructions to views
- Using robust, easy to maintain materials such as tempered glass, aluminium and powder coated steel for the shelters and driver amenities to minimise impacts from vandalism
- Use of barrier screen planting to the HV kiosks to discourage vandalism by removing direct public access.

4.2.7 Accessibility

Access to the tram platform and surrounding path networks have been designed in accordance with Universal Access principles, as outlined at Objective 4.1 of the UDS, to provide a safe, enjoyable, and accessible experience to all users.

The tram platform and connecting ramp are designed to a gentle, continuous grade (maximum 2.5%) and are generous in width, allowing users with a range of mobility needs to access public transport services without need for segregated or special facilities. The design also utilises handrails and landscaping edge treatments to the ramp to provide intuitive, physical and visual cues to path of travel.

The design and siting of the shelters and other elements on the platform is compliant with the Disability Standards for Accessible Public Transport (DSAPT) under the Disability Discrimination Act 1992 (DDA), with adequate clearance provided for circulation and passing on the platform and designated waiting spaces incorporated under the shelter canopies for passengers using wheelchairs or other mobility aids. The placement of tactile indicators has also been limited to where necessary for safety and wayfinding.

Permanent accessible pick-up/drop-off spaces for the SRL station and Tram Terminus have been indicatively shown on the approved Station and Tunnel Plans on the north side of Whitehorse Road. The final location of these spaces will be further assessed and confirmed during development of the future UDLP for the SRL Station and surrounding road network upgrades.

In the interim, temporary accessible pick-up/drop-off spaces will be provided in proximity to the Tram Terminus during the construction period, following removal of the existing median car park. The final location of these spaces will be determined through Transport Management Plans developed by the contractors responsible for delivery of works, in consultation the Box Hill Transport Management Liaison Group. (TMLG).

4.2.9 Lighting

Given the location and function of the Tram Terminus, the primary design objective for lighting is to achieve consistent and continuous 24-hour illumination on both the platform and connecting paths through to Whitehorse Road and beyond.

Layered lighting will be provided on the platform itself, with lighting attached to the overhead tram wires being the primary source of illumination (150 lux) and targeted lighting under the shelter canopies to seating areas (50 lux). Additional lighting will be provided to the pedestrian ramp and within the median crossing to achieve consistent light levels within key pedestrian movement areas (150 lux).

The design has also incorporated the distinctive architectural lighting poles/arms used across Box Hill's commercial centre for new lighting within the median, whilst lighting attached to the overhead tram wires replicates the existing heritage-style treatment used through this section of Whitehorse Road.

Opportunities for inclusion of creative lighting, either as a standalone element or part of an integrated design response, to the Tram Terminus will be further considered through the future UDLP developed for the SRL Station and surrounding public realm improvements, as part of a "whole of precinct" design strategy.

4.2.8 Sustainability

Given the limited extent of built form proposed, this UDLP has primarily incorporated sustainability initiatives and principles (in accordance with UDS Objective 1.4 and Requirement 5.1.14) through a landscape-centric lens. In particular, by actively identifying opportunities to maximise areas available for planting, the design has achieved an overall reduction in impervious surface coverage (hardstand) when compared with existing conditions, resulting in reduced stormwater runoff and pollutant loads reaching waterways.

The design also incorporates elements designed to minimise overall resource use during both construction and operation, including use of LED lights within shelters and surrounding street lamps, incorporation of recycled and reused construction materials, drought resistant plantings and durable, hard wearing material finishes.

Opportunities to reuse elements removed as part of demolition of the existing Tram Terminus to the east will be investigated following assessment of compliance with current standards and their current condition. This process will be undertaken by Yarra Trams in accordance with their standard processes, and will allow for potential reuse across their broader network.

Incorporation of further sustainability initiatives, including specific integrated water management treatments or 'green roof' planting to the shelter canopies, will be investigated as part of the future UDLP for the SRL station and surrounding area following progression of current precinct-wide investigations and trials elsewhere in the network of further innovations.

Appendix A Landscape Plans and Technical Drawings

List of Figures

Drawing Title	Drawing No.	Revision
Landscape Concept Plan - Temporary & Permanent Elements	322-0434-00-U-01-DR01	B
Landscape Planting Plan	322-0434-00-U-01-DR02	B
Landscape Planting Images	322-0434-00-U-01-DR03	B
Landscape Planting Schedule	322-0434-00-U-01-DR04	B
Materials Schedule, Palette and Images	322-0434-00-U-01-DR05	B
Landscape Concept Plan - Temporary & Permanent Elements	322-0434-00-U-01-DR06	B
Shelter, Retaining Wall and Fence Location Plan	322-0434-00-U-01-DR07	B
Tree Retention Plan	322-0434-00-U-01-DR08	B
HV & Driver Kiosk Location Plan	322-0434-00-U-01-DR09	B
Access Diagram	322-0434-00-U-01-DR11	B
Key Plan	322-0434-00-U-01-DR12	B
Illustrative Sections	322-0434-00-U-01-DR13	B
Illustrative Section	322-0434-00-U-01-DR14	B
Landscape Elevation - Kiosks	322-0434-00-U-01-DR15	B
Landscape Section and Elevation	322-0434-00-U-01-DR16	B
Perspective Diagram - 01 - Facing West	322-0434-00-U-01-DR17	B
Perspective Drawing 02 - Facing South West	322-0434-00-U-01-DR18	B
Perspective Drawing 03 - Facing East	322-0434-00-U-01-DR19	B
Surface Treatment Plan	322-0434-00-U-01-DR20	B
Platform Roof Treatment Plan	322-0434-00-U-01-DR21	B
Surface Treatment Plan - Detail 01	322-0434-00-U-01-DR22	B

SHIPLEY STREET

LAWN BETWEEN TRACKS

LAYERED SHRUB PLANTING AND TUSSOCK GRASS

YARRA TRAMS CONCRETE MAINTENANCE ACCESS

TRAM SHELTERS
LAYERED SHRUB PLANTING AND TUSSOCK GRASS
BLUESTONE PAVED ISLAND PLATFORM

EXISTING PEDESTRIAN CROSSING PAVED AREA

BIKE HOOPS

BENCH

CONCRETE

TRAM MOSAIC (RELOCATED)

RETAINING WALL

LAWN BETWEEN TRACKS

GARDEN BED

WHITEHORSE ROAD

'DALEK' SIGNAL BOX (TO BE RETAINED)

EMERGENCY SERVICES CAR PARK

HIGH VOLTAGE ELECTRICAL KIOSK MAINTENANCE ACCESS

CLISBY COURT

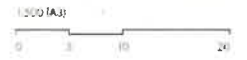
ELECTRICAL KIOSK

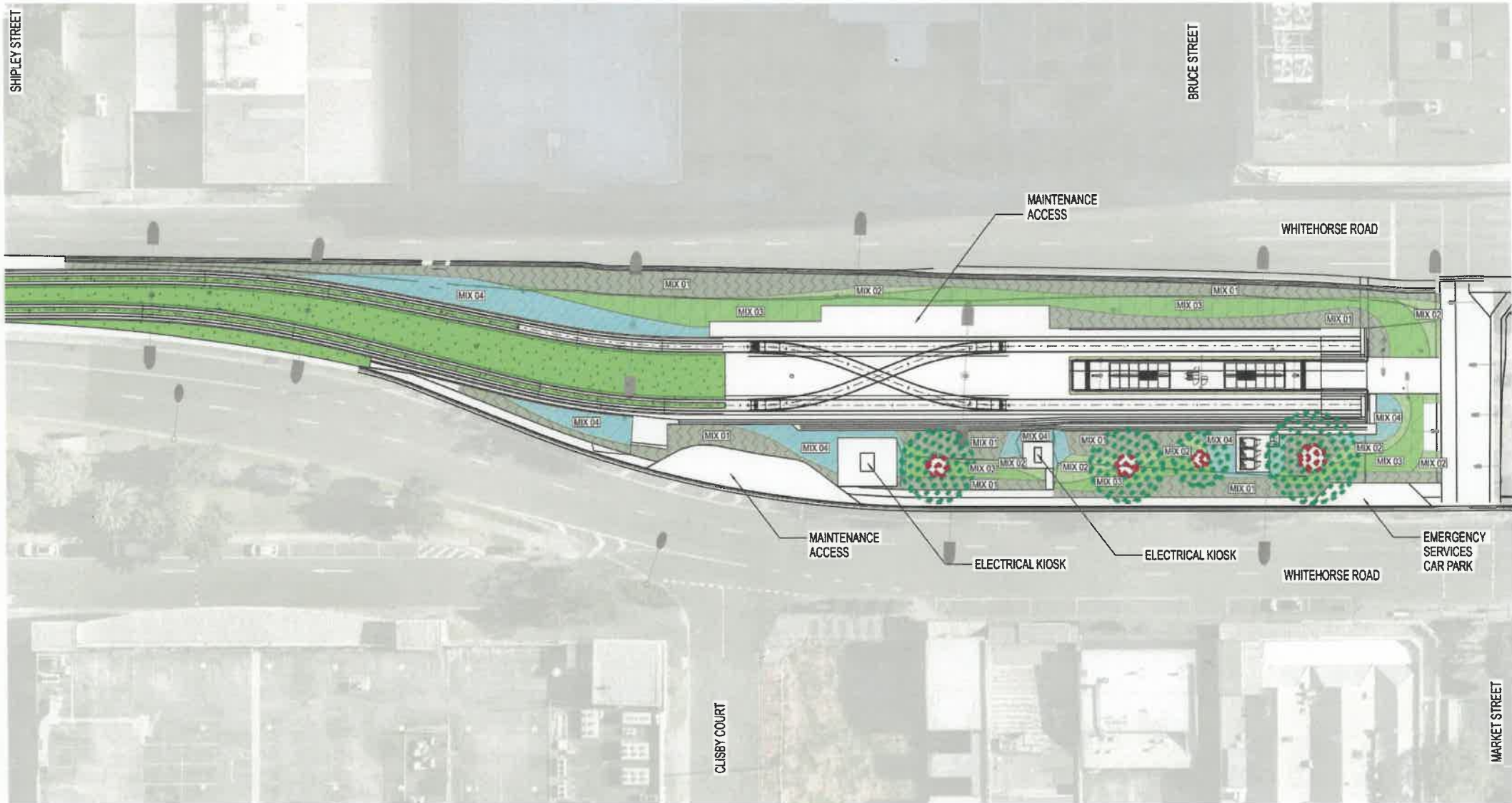
YARRA TRAMS DRIVERS TOILETS

BOX HILL CENTRAL

MARKET STREET


Drawing Title: Landscape Concept Plan | Project Name: SRL East Early Works Box Hill Tram Terminus UDLP | Drawing No.: 322-0434-00-U-01-DR01 | Revision: B | Date: 07.08.2023 | Drawn: JN | Checked: SO | Project Principal: KM | Scale: 1:500 (A3)





LEGEND


 **LOW PLANTING MIX 01**
PROSTRATE SPECIES NOT TO BE PLANTED
WITHIN 1m OF PATHS AND TRAM TRACKS
DENSITY: 4-6 PLANTS/m²

 **PEDESTRIAN BUFFER PLANTING MIX 03**
TYPICALLY 1.2m HEIGHT TO BE PLANTED
ALONGSIDE MIX 02 AS A CONTRAST OF
SPECIES
DENSITY: 4-6 PLANTS/m²

 **GRASS**
DROUGHT TOLERANT
GRASS SEED MIX TO
BE APPLIED VIA HYDRASEEDING



TPZ - TREE PROTECTION ZONE
ALL PLANTING WITHIN TPZ MUST BE HAND EXCAVATED AND PLANTED
NOTE: TPZ'S SIZE AND LOCATION SUBJECT TO ARBORIST REPORTS.

 **MEDIUM PLANTING MIX 02**
TYPICALLY 1.2m HEIGHT WITH ROBUST
NATURE. TO BE PLANTED ALONG ROADSIDE
DENSITY: 4-6 PLANTS/m²

 **SCREENING PLANTING MIX 04**
TYPICALLY 2m HEIGHT TO PROVIDE SCREENING
TO ELECTRIC KIOSK AND DRIVERS TOILET
FACILITIES TO AND FROM THE TRAM PLATFORM
DENSITY: 4-6 PLANTS/m²



SRZ - STRUCTURAL ROOT ZONE
NO PLANTING WITHIN SRZ
NOTE: SRZ'S SIZE AND LOCATION SUBJECT TO ARBORIST REPORTS.

Drawing Title

Project Name

Drawing No.

Revision

Date

Drawn

Checked

Project Principal

Scale

Landscape Planting Plan

SRL East Early Works
Box Hill Tram Terminus UDLP

322-0434-00-U-01-DR02

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18.07.2023

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0 5 10 20m



Low planting mix



Medium planting mix



Pedestrian buffer planting mix



Screening planting



Planting Schedule

Botanical name	Common name	Pot size	Size at maturity	Density
Low Planting Mix (prostrate-0.5m)				
Rhagodia spinescens	Aussie Flat Bush	Tubestock	0.5-1 x 1-4m	3/m ²
Myoporum parvifolium 'Garden Armour'	Creeping Boobialla	Tubestock	0.15 x 0.6-1m	3/m ²
Senecio serpens	Blue Chalk Sticks	Tubestock	0.25 x 0.6-0.9m	5/m ²
Lomandra 'Evergreen Baby'	Evergreen Baby Mat Rush	Tubestock	0.45 x 0.45m	4/m ²
Scaevola humilis	Purple Fusion	Tubestock	0.2 x 1.5m	5/m ²
Lomandra Shara	Mat Rush	Tubestock	0.5 x 0.5m	4/m ²
Limonium perezii	Sea Lavender	Tubestock	0.3-0.6 x 0.3-0.6m	4/m ²
Tulbaghia 'Milky Way'	Society Garlic Milky Way	Tubestock	0.6 x 0.4m	5/m ²
Medium Planting Mix (0.5m-1.0m)				
Correa 'Dusky Bells'	Dusky Bells	Tubestock	0.5-1 x 2-4m	3/m ²
Lomandra 'Tanika'	Taniko	Tubestock	0.5 x 0.6m	3/m ²
Helichrysum petiolare	Licorice Plant	Tubestock	0.6 x 1.5m	3/m ²
Dianella caerulea	Blue Flax Lily	Tubestock	0.6 x 0.3m	4/m ²
Crassula Bluebird	Silver Dollar Jade	Tubestock	1.0 x 1.0m	4/m ²
Westringia 'Grey Box'	Coast Rosemary	Tubestock	0.4 x 0.4m	3/m ²
Pedestrian Buffer Planting Mix (0.5-1.5m)				
Dianella revoluta 'Revelation'	Revelation Flax Lily	140mm pot	0.5 x 0.5m	4/m ²
Lomandra longifolia	Mat Rush	140mm pot	0.6 x 1.5m	4/m ²
Acacia cognata 'Mini Cog'	Mini Cog Wattle	140mm pot	0.7 -1.0 x 1.0m	3/m ²
Correa alba subsp. alba	White Correa	140mm pot	1.5 x 1.5m	
Correa glabra	Native Fuchsia	140mm pot	1-2 x 0.6-1m	2/m ²
Nandina domestica nana	Dwarf Sacred Bamboo	140mm pot	0.6 x 0.6m	4/m ²
Screening Planting Mix (1.5m +)				
Banksia integrifolia 'Sentinel'	Native Banksia	200mm pot	2.5 x 1m	1/m ²
Syzygium paniculata 'Backyard Bliss'	Lilly Pilly Backyard Bliss	200mm pot	3-4 x 1-2m	1/m ²
Callistemon viminalis 'KPS38'	Red Alert Callistemon	200mm pot	2.0 x 1.5m	3/m ²
Westringia hybrid 'WES01'	Naringa Westringia	200mm pot	2.2 x 1.5m	2/m ²
Choisya ternata	Mexican Orange Blossom	200mm pot	1.2-2.4 x 1.2-2.4m	3/m ²
Grevillea rhyolitica 'Deva Flame'	Deva Flame	200mm pot	1.5-2 x 1.5-2	2/m ²

Drawing Title

Project Name

Drawing No.

Revision Date

Drawn

Checked

Project Principal

Scale

Landscape Planting Schedule

SRL East Early Works
Box Hill Tram Terminus UDLP

322-0434-00-U-01-DR04

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18.07.2023

LZ

MV

KM

Not to Scale

Materials Schedule

Item	Material/Product	Finish	Permanence	
Platform				
1	Paving	Bluestone pavers 600x300x40mm	Bluestone	Permanent
2	Crossing	Concrete	Broom finish	Temporary
3	Tactiles	GraniTac 300x300x40mm base	Ivory over Bluestone	Permanent
Shelter				
4	Shelter structure	x2 - 8m Long Stoddart Evo Double Roof Shelter	Aluminium	Permanent / potential for further modification through Main Works packages
5	Seating	Aluminium slot bench x4 included within shelter - 2.4m long	Natural Aluminium	Permanent
Ancillary Structures				
6	Fencing	Stainless Steel safety fence to Yarra Tram standards, fixed to top of wall capping	Polished Stainless Steel	Permanent
7			Concrete - Textured concrete formliner with full colour oxide	Permanent
8	Retaining wall	Concrete wall cladding to post and panel wall to hide post supports.	Capping - Sawn face and sides, bluestone capping, with sawn face and sides, 2mm chamfer to all edges, 40mm overhang to front face of wall and flush to back of wall	
9	Bike Hoops	Stainless steel bike hoop, surface mounted	Polished stainless steel	Temporary/ Potential to relocate within interim or main works design
10	Paving	Exposed Aggregate	Exposed aggregate concrete with bluestone banding as transition between the platform and crossing	Temporary
	HV Kiosks	Metal Cabinets	Painted finish, colour to be selected from existing public realm palette in consultation with Council.	Permanent

Material Palette



Bluestone pavers



Precast concrete kerb and asphalt



Stone tactiles



Stoddart EVO shelter



Aluminium seating



Standard Yarra Trams barrier fencing designs



Bike hoops



Exposed aggregate concrete



Bluestone Wall Capping



Retaining wall textured concrete finish options



Retaining wall - Colour oxide concrete options

Drawing Title

Project Name

Drawing No.

Revision

Date

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Project Principal

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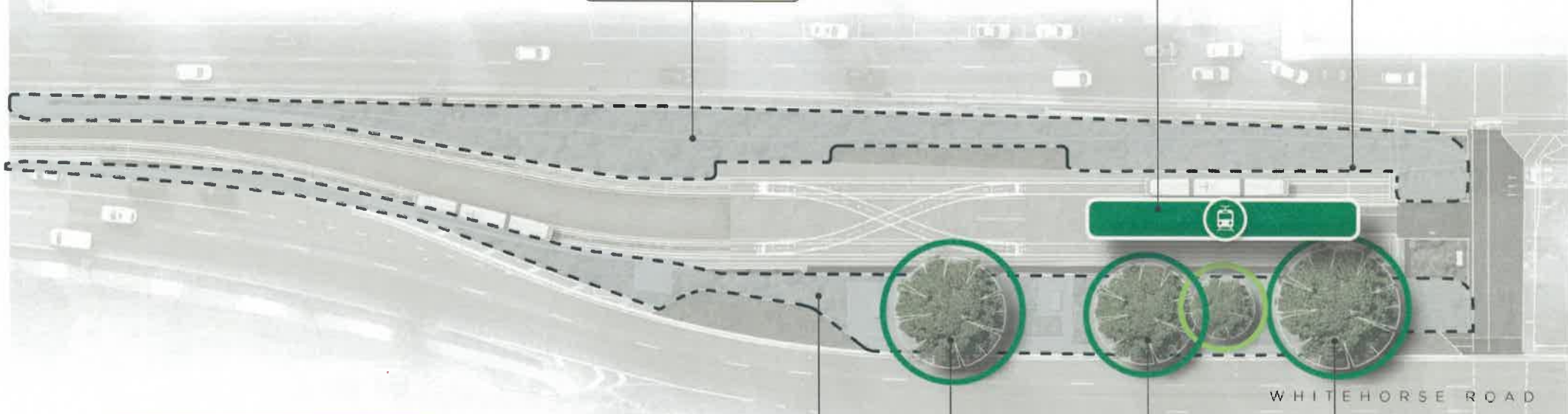
SHIPLEY STREET

BRUCE STREET

TEMPORARY LANDSCAPE
TO BE REMOVED AS PART OF THE WHITEHORSE ROAD RECONFIGURATION IN MAIN WORKS

TRAM PLATFORM
PERMANENT STRUCTURE TO BE RETAINED AS PART OF MAIN WORKS

PLATFORM FENCING



LEGEND

- Trees to be retained
- Tree retained subject to arboricultural assessment
- Temporary landscaping
- Tram platform

CLISBY COURT

TEMPORARY LANDSCAPE
TO BE REMOVED AS PART OF THE WHITEHORSE ROAD RECONFIGURATION AND PUBLIC REALM UPGRADES IN MAIN WORKS

RETAINED TREES - TO BE FURTHER INVESTIGATED AS PART OF WHITEHORSE ROAD DESIGN (BY OTHERS)

MARKET STREET

BOX HILL CENTRAL

Drawing Title	Project Name	Drawing File	Version	Date	Drawn	Checked	Project Manager	Scale
Landscape Concept Plan - Temporary & Permanent Elements	SRL East Early Works Box Hill Tram Terminus UDLP	322-0434-00-U-01-DR06	C	09.08.2023	JN	SO	KM	1:500 (A3)

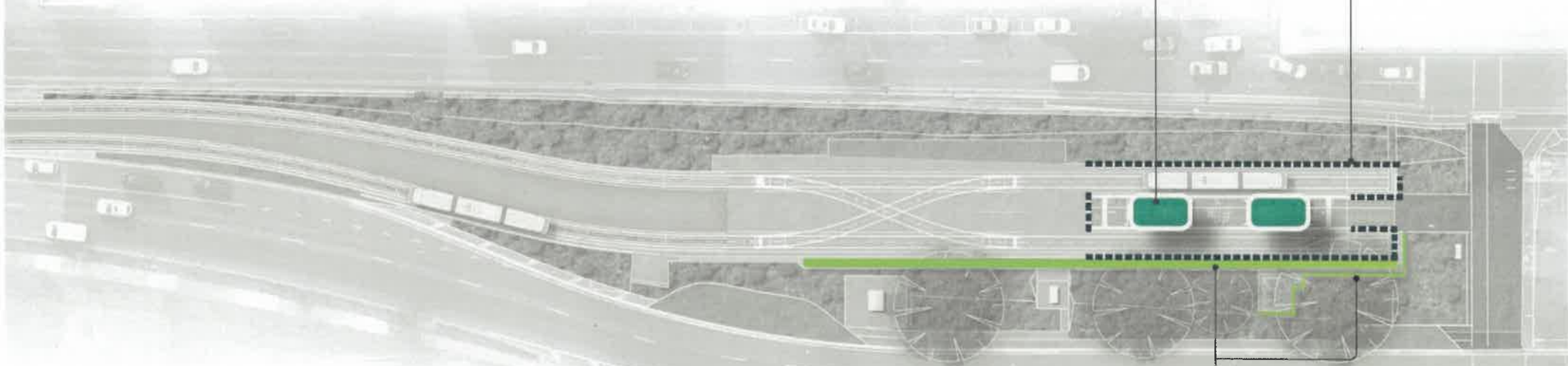


SHIPLEY STREET




BRUCE STREET

TRAM SHELTERS
PERMANENT
STRUCTURE TO BE
RETAINED AS PART
OF MAIN WORKS

PLATFORM
FENCING



LEGEND

-  Proposed retaining wall
-  Platform fencing
-  Tram shelter

RETAINING WALL

WHITEHORSE ROAD

CLISBY COURT

MARKET STREET

BOX HILL CENTRAL

Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
Shelter, Retaining Wall and Fence Location Plan	SRI East Early Works Box Hill Tram Terminus UDLP	322-0434-00-U-01-DR07	B	08.08.2023	JN	SO	KM	1:500 (A3)



SHIPLEY STREET

BRUCE STREET



CLISBY COURT

MARKET STREET

WHITEHORSE ROAD

LEGEND



Trees to be retained



Tree retention subject to arboricultural assessment

RETAINED TREES -
TO BE FURTHER
INVESTIGATED AS
PART OF
WHITEHORSE ROAD
DESIGN (BY

BOX HILL CENTRAL

Drawing Title

Project Name

Drawing No

Revision

Date

Drawn

Checked

Project Principal

Scale

Tree Retention Plan

SRI East Early Works
Box Hill Tram Terminus UDLP

322-0434-00-U-01-DR08

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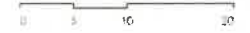
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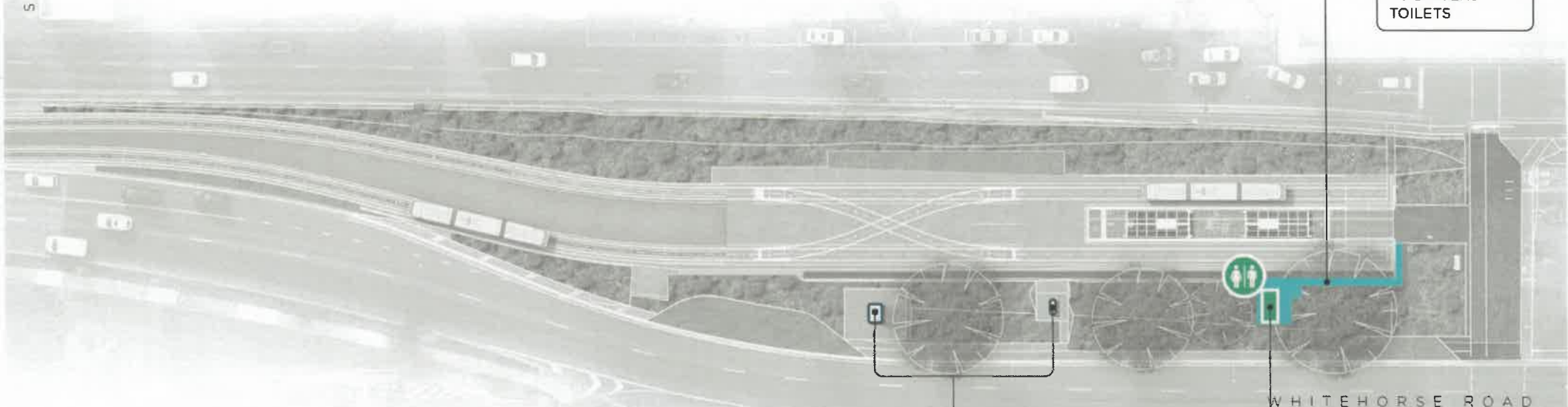
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SHIPLEY STREET

BRUCE STREET

PROPOSED CONCRETE PATH TO DRIVERS TOILETS



LEGEND

-  Proposed Electrical Kiosk
-  Proposed Yarra Trams Drivers Toilets
-  Proposed Concrete Path

ELECTRICAL KIOSK

PROPOSED YARRA TRAMS DRIVERS TOILETS

CLISBY COURT

MARKET STREET

WHITEHORSE ROAD

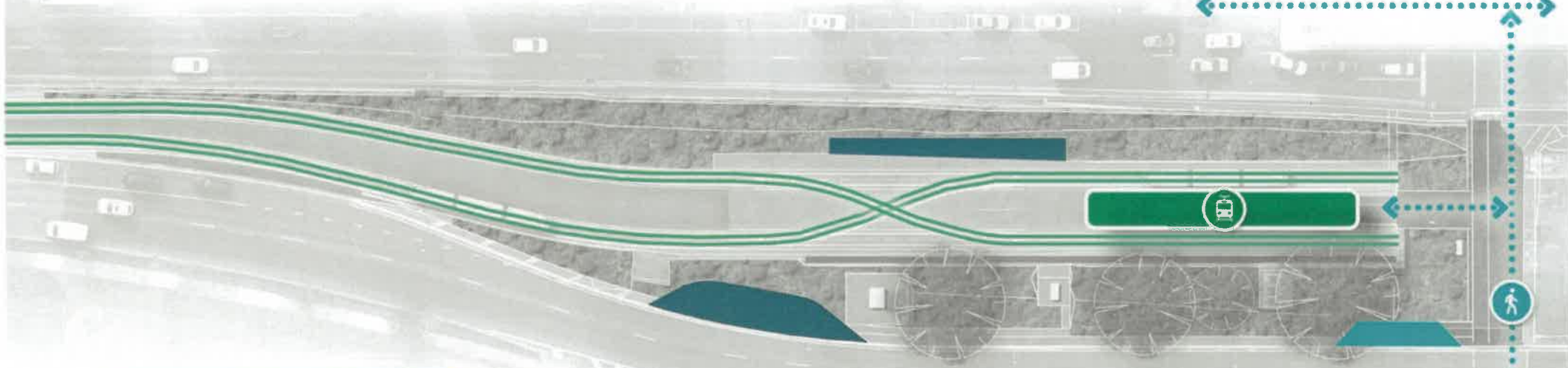
BOX HILL CENTRAL

Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
HV & Driver Kiosk Location Plan	SRL East Early Works Box Hill Tram Terminus UDLP	322-0434-00-U-01-DR09	B	08.08.2023	JN	SO	KM	1:500 (A3)



SHIPLEY STREET

BRUCE STREET



WHITEHORSE ROAD

CLISBY COURT

MARKET STREET

BOX HILL CENTRAL

LEGEND

- Pedestrian access
- Tram access
- Tram platform
- Signalised crossing location
- Maintenance vehicle access
- Emergency services access

Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
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Access Diagram

SRL East Early Works
Box Hill Tram Terminus UDLP

322-0434-00-U-01-DR11

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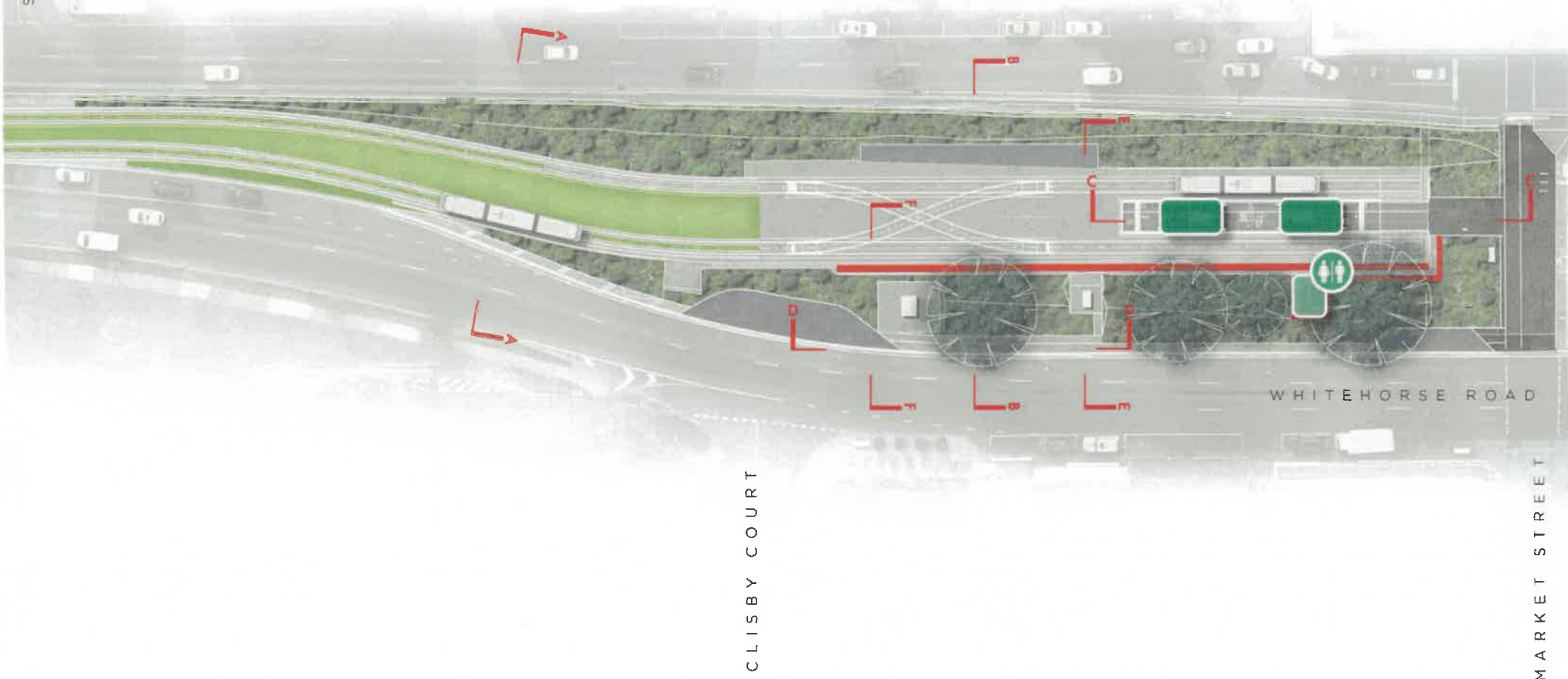
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SHIPLEY STREET

BRUCE STREET



BOX HILL CENTRAL

CLISBY COURT

WHITEHORSE ROAD

MARKET STREET

Drawing Title

Project Name

Drawing No.

Revision

Date

Drawn

Checked

Project Principal

Scale

Key Plan

SRL East Early Works
Box Hill Tram Terminus UDLP

322-0434-00-U-01-DR12

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07.08.2023

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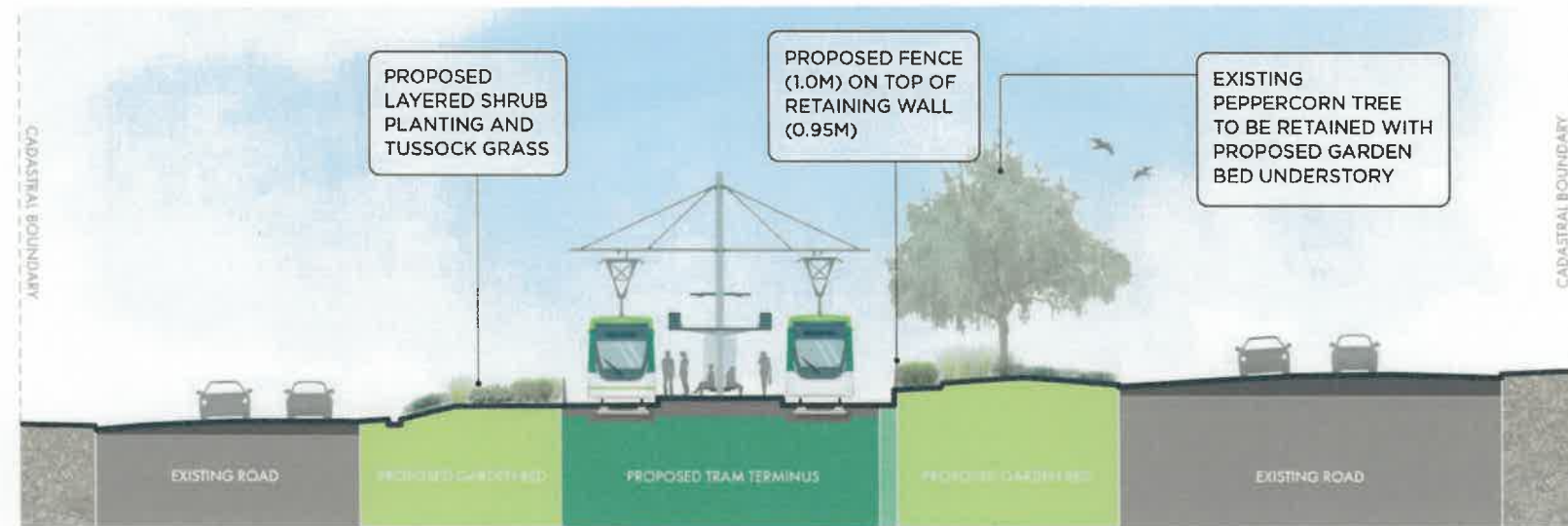
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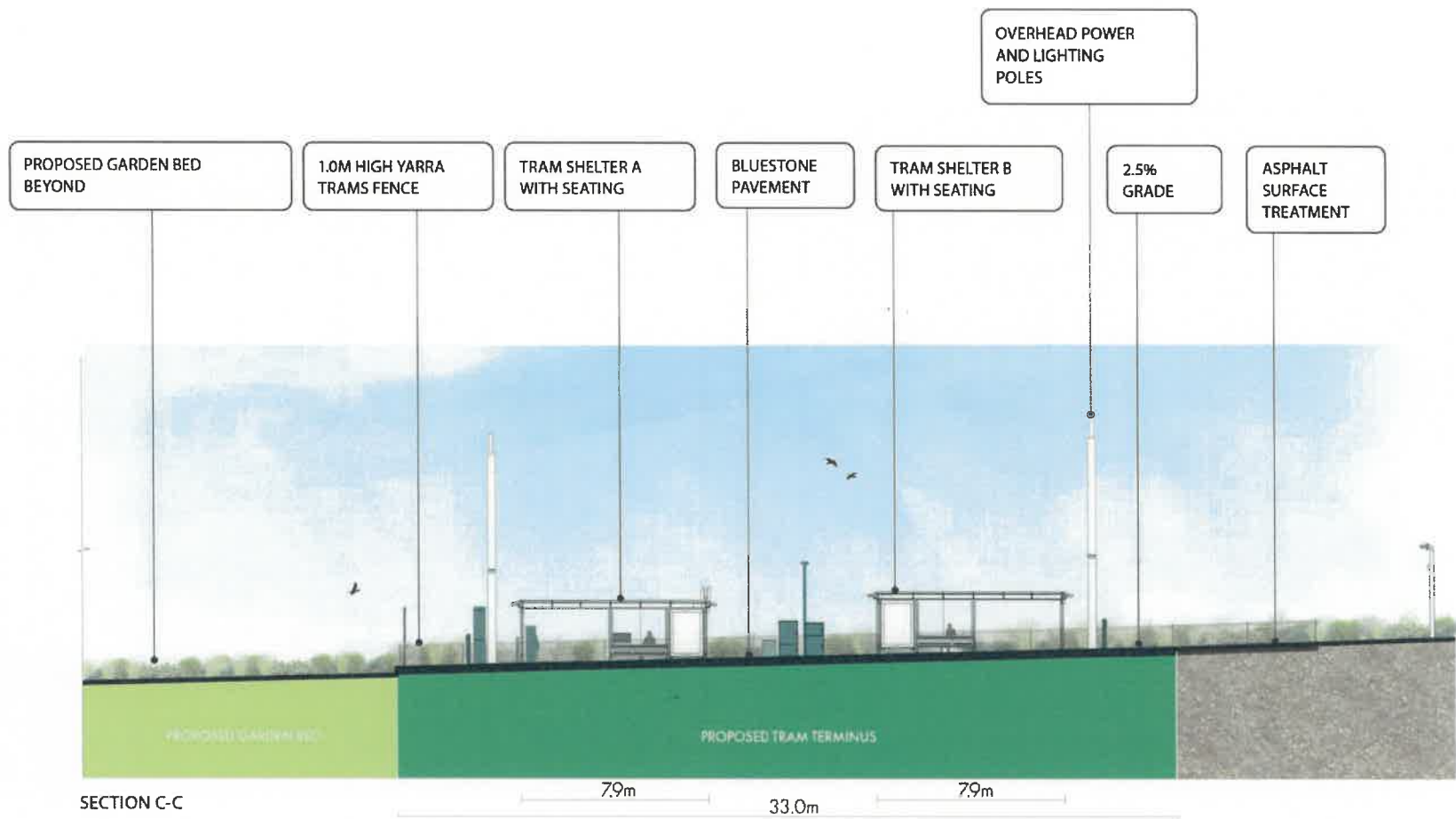




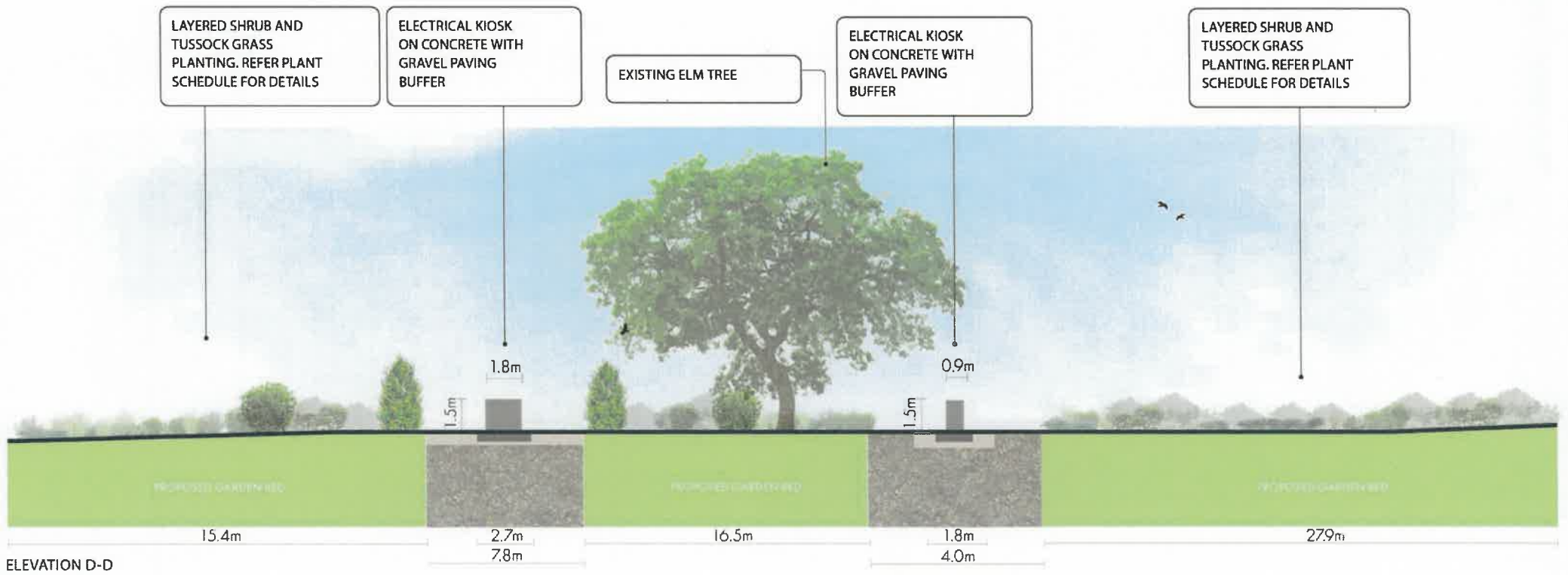
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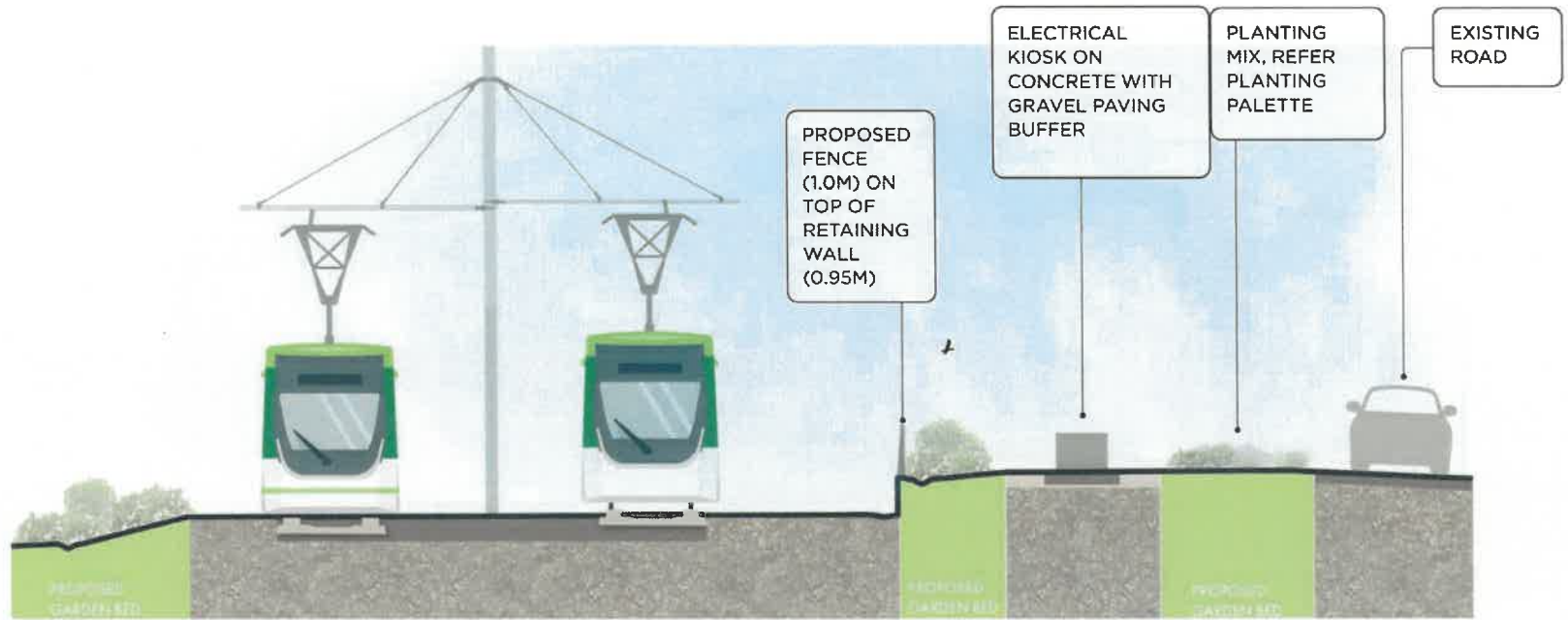
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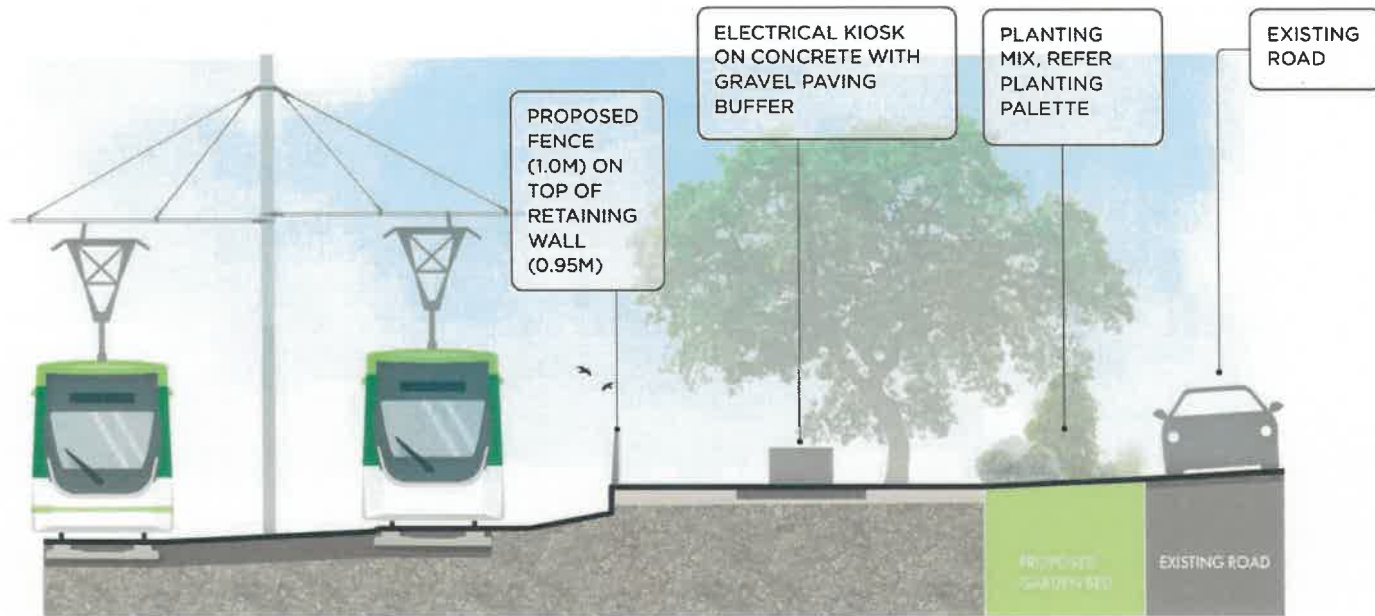
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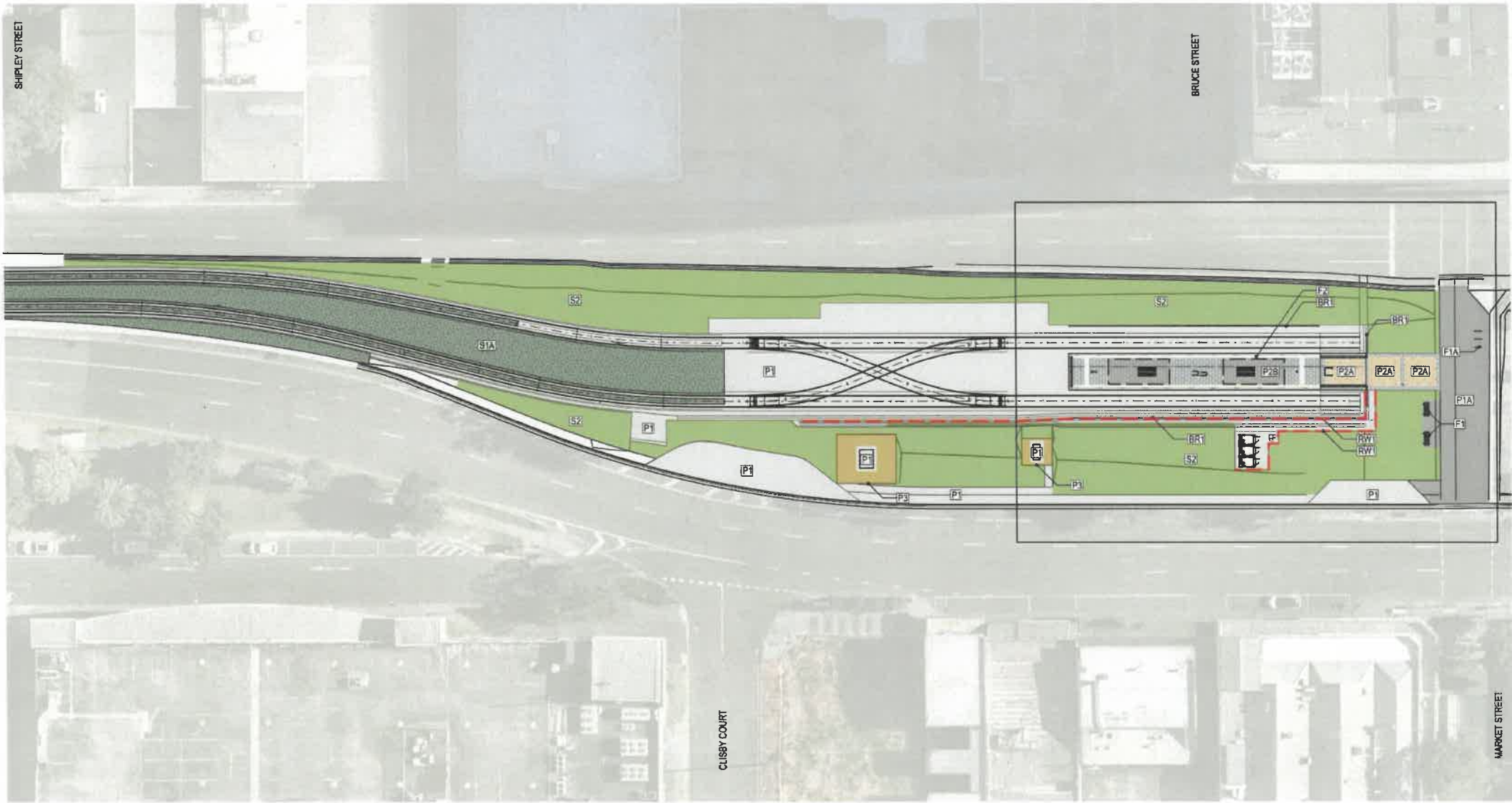
ELEVATION D-D



SECTION E-E



SECTION F-F



SOFT SURFACE TREATMENT

- S1A** - HYDROSEED LAWN
DROUGHT TOLERANT GRASS SEED MIX TO BE APPLIED VIA HYDRASEEDING
- S2** - GARDEN BED WITH MULCH
GARDEN BED PLANTING WITH ORGANIC MULCH. TO BE USED FOR ALL GARDEN BEDS

HARD SURFACE TREATMENT

- P1** - STANDARD GREY CONCRETE. REINFORCED STANDARD GREY CONCRETE WITH BROOM FINISH
- P2B** - BITUMEN
- P2A** - COLOURED EXPOSED AGGREGATE CONCRETE PAVEMENT - TYPE 01

- P2C** - BLUESTONE PAVEMENT
600 x 300mm PAVERS TO BE APPLIED ON TRAM PLATFORM AND CAPPING OF RETAINING WALL
- P3** - COMPACTED GRAVEL
100mm THICKNESS CRUSHED ROCK SCREENING

FURNITURE

- F1** - 1.8m LONG PROPRIETARY PARK SEAT
PROPRIETARY PARK SEAT WITH BACK AND ARM RESTS
- F1A** - BIKE HOOPS
3 BIKE HOOPS TO BE PROPOSED
- F2** - TACTILES
REFER CIVIL PACKAGE FOR DETAILS

WALLS AND BARRIERS

- RW1** - RETAINING WALL
CONCRETE POST AND PANEL WALL
REFER CIVIL PACKAGE FOR DETAILS
- BR1** - PLATFORM FENCE
STAINLESS STEEL POST AND WIRE FENCE
REFER CIVIL PACKAGE FOR DETAILS

Drawing Title

Project Name

Drawing No

Revision

Date

Drawn

Checked

Project Principal

Scale

Surface Treatment Plan

SRL East Early Works
Box Hill Tram Terminus UDLP

322-0434-00-U-01-DR21

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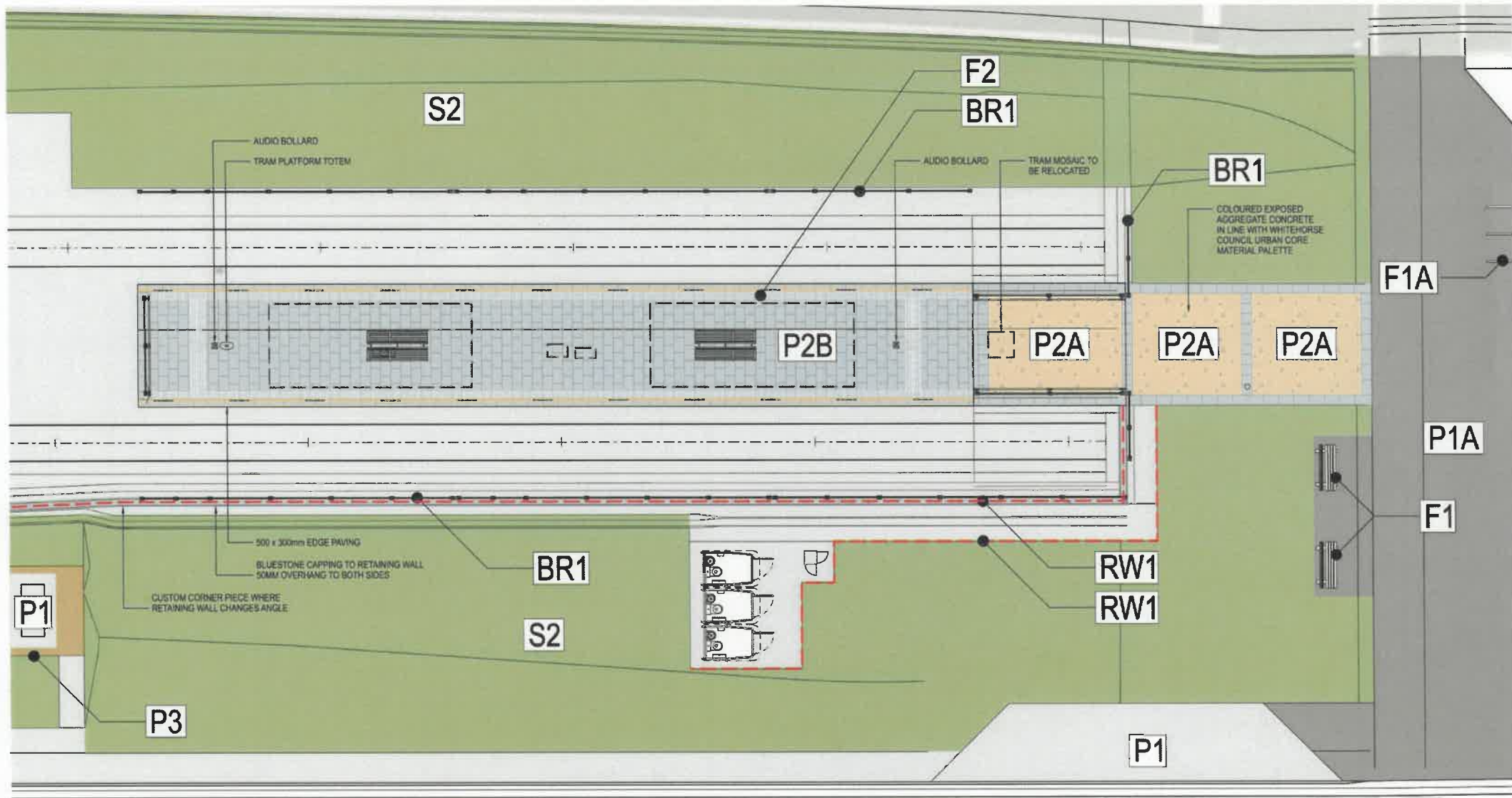
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SOFT SURFACE TREATMENT

-  S1A - HYDROSEED LAWN
DROUGHT TOLERANT GRASS SEED MIX TO BE APPLIED VIA HYDRASEEDING
-  S2 - GARDEN BED WITH MULCH
GARDEN BED PLANTING WITH ORGANIC MULCH. TO BE USED FOR ALL GARDEN BEDS



HARD SURFACE TREATMENT

-  P1 - STANDARD GREY CONCRETE. REINFORCED STANDARD GREY CONCRETE WITH BROOM FINISH
-  P2B - BLUESTONE PAVEMENT
600 x 300mm PAVERS TO BE APPLIED ON TRAM PLATFORM AND CAPPING OF RETAINING WALL
-  P2A - COLOURED EXPOSED AGGREGATE CONCRETE PAVEMENT - TYPE 01
-  P3 - COMPACTED GRAVEL
100mm THICKNESS CRUSHED ROCK SCREENING

FURNITURE

-  F1 - 1.8m LONG PROPRIETARY PARK SEAT
PROPRIETARY PARK SEAT WITH BACK AND ARM RESTS.
-  F1A - BIKE HOOPS
3 BIKE HOOPS TO BE PROPOSED
-  F2 - TACTILES
REFER CIVIL PACKAGE FOR DETAILS

WALLS AND BARRIERS

-  RW1 - RETAINING WALL
CONCRETE POST AND PANEL WALL. REFER CIVIL PACKAGE FOR DETAILS
-  BR1 - PLATFORM FENCE
STAINLESS STEEL POST AND WIRE FENCE. REFER CIVIL PACKAGE FOR DETAILS

Drawing Title

Project Name

Drawing No.

Revision

Date

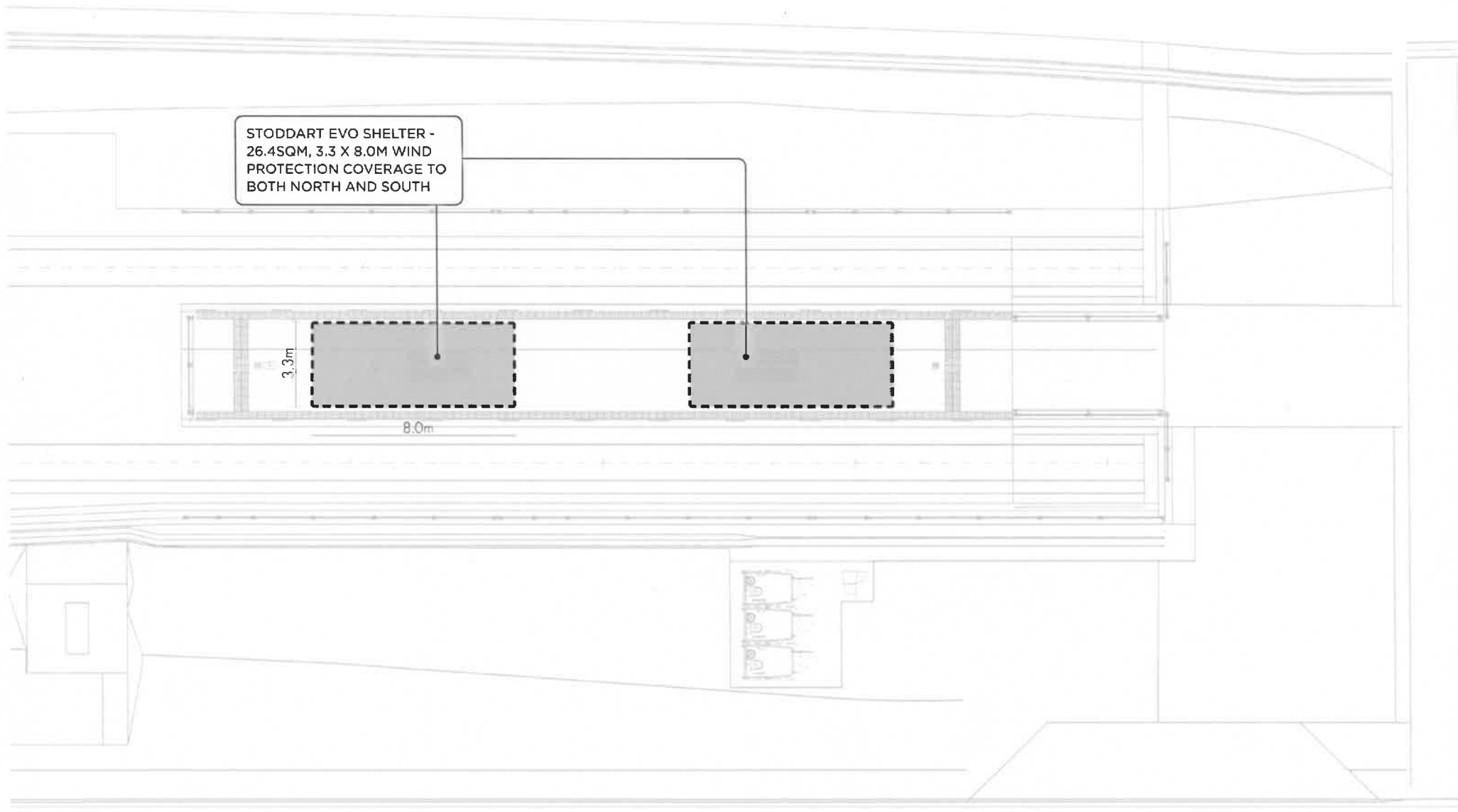
Drawn

Checked

Project Principal

Scale





Drawing Title

Project Name

Drawing No.

Revision

Date

Drawn

Checked

Project Principal

Scale

Surface Treatment Plan Detail 01

SRL East Early Works
Box Hill Tram Terminus UDLP

322-0434-00-U-01-DR23

B

07.08.2023

JN

SO

KM

(= 300/100)





Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
Artist Impression (Indicative Only) - Perspective Drawing 01 - Facing West	SRL East Early Works Box Hill Tram Terminus UDLP	322-0434-00-U-01-DR17	B	18.07.2023	PC	SO	KM	Not to Scale



Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
Artist Impression (Indicative Only) - Perspective Drawing 02 - Facing South West	SRL East Early Works Box Hill Tram Terminus UDLP	322-0434-00-U-01-DR18	B	18.07.2023	PC	SO	KM	Not to Scale



Drawing Title	Project Name	Drawing No	Revision	Date	Drawn	Checked	Project Principal	Scale
Artist Impression (Indicative Only) - Perspective Drawing 03 - Facing East	SRL East Early Works Box Hill Tram Terminus UDLP	322-0434-00-U-01-DR19	B	18.07.2023	PC	SO	KM	Not to Scale

