

## Appendix C: Byford Station Final Place Plan



# MetCONNX



## BYFORD RAIL EXTENSION

BYFORD STATION FINAL PLACE PLAN

DOCUMENT NO. R30-WWH-RPT-PN-325-00001

7 AUGUST 2023

THIS PROJECT TAKES PLACE ON THE ANCESTRAL LANDS OF THE NOONGAR PEOPLE.  
WE ACKNOWLEDGE AND PAY RESPECT TO WHADJUK NOONGAR PEOPLE, THE TRADITIONAL  
CUSTODIANS OF THIS *KWOBIDAK BOODJAR* (BEAUTIFUL COUNTRY).

WE ACKNOWLEDGE THE FIRST AUSTRALIANS AS THE TRADITIONAL CUSTODIANS OF THE  
CONTINENT, WHOSE CULTURES ARE AMONG THE OLDEST LIVING CULTURES IN HUMAN HISTORY.

## INDIGENOUS CULTURAL INTELLECTUAL PROPERTY

This document draws directly on the METRONET Cultural Context Document and should be used as a guide only. Any parties using cultural material contained within this document should liaise with the appropriate Traditional Owners to ensure that the use of that material is culturally appropriate and accurate.

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We would like to warn people viewing this document that some sections may contain images, names or stories of Aboriginal Australians who have passed away. We will respect any request to remove images or names of the deceased persons from this document if necessary.

## CULTURAL TERMS

The term 'Noongar' is used throughout this document to refer to Aboriginal people of the South-West region of Western Australia. Noongar was originally an oral language. Written recordings offer different spelling types. APPARATUS uses the orthography endorsed by the Noongar Language Centre – Noongar Boodjar Language Cultural Aboriginal Corporation – unless otherwise advised by the METRONET Noongar Reference Group.

## PREPARED FOR



## PROJECT TEAM

NOP	Laing O'Rourke, KBR & Pritchard Francis
ARCHITECTURE & URBAN DESIGN	Hames Sharley & Weston Williamson + Partners
LANDSCAPE ARCHITECTURE	UDLA
PUBLIC ART & INTERPRETATION	APPARATUS
DDA	O'Brien Harrop Access (OHA)

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# CONTENTS

	EXECUTIVE SUMMARY	6	06	FINAL PLACE PLAN	61
01	INTRODUCTION & PURPOSE	9		PLACE PRINCIPLES	62
	INTRODUCTION	10		STATION PRECINCT SPACE TYPOLOGIES	64
	WHAT IS A PLACE PLAN?	12		PLACE PLAN	66
02	PLANNING FRAMEWORK	15		DAY ONE STATION WELCOME PLACE	70
	METRONET STRATEGIES	16		DAY ONE JOURNEYS AND ACCESSIBILITY	71
	METRONET STATION PRECINCT DESIGN GUIDE	18		FUTURE-PROOFING THE STATION PRECINCT	72
	STRATEGIC PLANNING CONTEXT	20	07	LANDSCAPE	75
	PLANNING FRAMEWORK	22		LANDSCAPE PLAN	76
03	CONTEXT ANALYSIS	25		SECTIONAL STUDY	78
	PERTH RAILWAY CHARACTER	26		TREES AND SHADE	80
	BYFORD RAIL EXTENSION	28		LANDSCAPE CHARACTER - HARDSCAPE	82
	RELATION TO COUNTRY AND LANDSCAPE SYSTEMS	30		LANDSCAPE CHARACTER - SOFTSCAPE	84
	ENVIRONMENT	32		INVESTMENT LEVELS	86
	BUILT FORM AND HEAT	33	08	ARCHITECTURE	89
	LAND USE	34		LINE-WIDE DESIGN NARRATIVE	90
	DISTRICT LEVEL DESTINATIONS	35		STATION DESIGN	92
	LOCAL ACTIVITIES	36		STATION AMENITIES	94
	PEDESTRIAN ACCESS ROUTES	38		FORMAL WAYFINDING	95
	CYCLE ACCESS ROUTES	39		ARTIST IMPRESSIONS	96
	BUS ACCESS ROUTES	40	09	PUBLIC ART	101
	VEHICLE ACCESS ROUTES	41		PUBLIC ART PLAN	102
	ENGAGING WITH AUDIENCES	42		METRONET'S TYPES OF PUBLIC ART	103
	OPPORTUNITIES & CONSTRAINTS	44		PUBLIC ART STRATEGY ALIGNMENT	104
04	NARRATIVE ANALYSIS	47		PUBLIC ART IMPLEMENTATION	105
	NOONGAR CULTURAL CONTEXT	48		PUBLIC ART OPPORTUNITIES	106
	SHARED HISTORY AND CULTURAL SIGNIFICANCE	50		CURATORIAL RATIONALE	107
	COMMUNITY PERCEPTIONS	52	10	IMPLEMENTATION	111
05	SENSE OF PLACE	55		DESIGN GUIDANCE	112
	SENSE OF PLACE PURPOSE	56			
	LINE WIDE SENSE OF PLACE	57			
	SENSE OF PLACE STATEMENT	59			

# LIST OF FIGURES & TABLES

## FIGURE 1. LIST OF FIGURES

FIGURE 1.	PLACE PLAN - DAY ONE	7
FIGURE 2.	PLACE PLAN - FUTURE	7
FIGURE 3.	LOCATION PLAN	11
FIGURE 4.	THE ROLE OF A PLACE PLAN	12
FIGURE 5.	PLACE PLAN TO MEET METRONET OBJECTIVES	13
FIGURE 6.	PTA MOVEMENT HIERARCHY	16
FIGURE 7.	STRATEGIC PLANNING CONTEXT	20
FIGURE 8.	RAILWAY CHARACTER ON METROPOLITAN SCALE	27
FIGURE 9.	PTA FUTURE SYSTEMS PLAN METRONET	28
FIGURE 10.	PLAN BYFORD RAIL EXTENSION - BASE CASE	28
FIGURE 11.	LOCATION PLAN – RELATION TO COUNTRY	30
FIGURE 12.	SOIL LANDSCAPE AND SURFACE WATER SYSTEMS	31
FIGURE 13.	BYFORD – ENVIRONMENTAL PLAN	32
FIGURE 14.	BYFORD – BUILT FORM AND URBAN HEAT PLAN	33
FIGURE 15.	BYFORD – LAND USE	34
FIGURE 16.	BYFORD – ACTIVITIES, MOVEMENT AND DESTINATIONS	35
FIGURE 17.	BYFORD – LOCAL ACTIVITIES	36
FIGURE 18.	BYFORD – PEDESTRIAN NETWORK	38
FIGURE 19.	BYFORD – CYCLE NETWORK	39
FIGURE 20.	BYFORD – BUS NETWORK	40
FIGURE 21.	BYFORD – PRIVATE VEHICLE NETWORK	41
FIGURE 22.	OPPORTUNITIES & CONSTRAINTS PLAN	44
FIGURE 23.	OPPORTUNITIES & CONSTRAINTS PLAN IN WIDER CONTEXT	45
FIGURE 24.	BYFORD AREAS OF NARRATIVE INTEREST	51
FIGURE 25.	STATION PRECINCT SPACE TYPOLOGIES	64
FIGURE 26.	PLACE TYPOLOGIES – DAY ONE	65
FIGURE 27.	PLACE TYPOLOGIES – FUTURE	65
FIGURE 28.	PLACE PLAN – DAY ONE	66
FIGURE 29.	PLACE PLAN – FUTURE	68

FIGURE 30.	DAY ONE STATION WELCOME PLACE IMPRESSION	70
FIGURE 31.	DAY ONE JOURNEYS AND ACCESSIBILITY	71
FIGURE 32.	FUTURE-PROOFING – DAY ONE	72
FIGURE 33.	FUTURE-PROOFING – FUTURE	72
FIGURE 34.	FUTURE-PROOFING – LONG-TERM PERSPECTIVE (A)	73
FIGURE 35.	FUTURE-PROOFING – LONG-TERM PERSPECTIVE (B)	73
FIGURE 36.	LANDSCAPE MASTER PLAN BYFORD STATION PRECINCT	77
FIGURE 37.	WELCOME PLACE (DETAIL)	77
FIGURE 38.	SECTION A-A	78
FIGURE 39.	SECTION B-B	78
FIGURE 40.	SECTION C-C	79
FIGURE 42.	SECTION E-E	79
FIGURE 43.	SECTION F-F	79
FIGURE 41.	SECTION D-D	79
FIGURE 44.	TREES AND SHADE PLAN	80
FIGURE 45.	INVESTMENT LEVELS PLAN	87
FIGURE 46.	BYFORD STATION – ASSEMBLY	93
FIGURE 47.	BYFORD STATION – AMENITIES	94
FIGURE 48.	BYFORD STATION – FORMAL WAYFINDING	95
FIGURE 49.	ARTIST IMPRESSION – GEORGE STREET ENTRANCE	96
FIGURE 50.	ARTIST IMPRESSION – VIEW FROM THE SOUTH	97
FIGURE 51.	ARTIST IMPRESSION – BUSH PLAZA	98
FIGURE 52.	ARTIST IMPRESSION – WELCOME GARDENS	99
FIGURE 53.	PUBLIC ART OPPORTUNITIES PLAN	106

## TABLE 1. TABLES

TABLE 1.	STRATEGIC CENTRE SP2 GUIDELINES	18
TABLE 2.	PRELIMINARY STATION DESIGN SUMMARY	19
TABLE 3.	METROPOLITAN RAIL LINE CHARACTERS	26
TABLE 4.	AUDIENCE TYPOLOGIES	42
TABLE 5.	INVESTMENT LEVELS FOR PUBLIC REALM	86
TABLE 6.	DESIGN GUIDANCE TO ACHIEVE THE SENSE OF PLACE	112

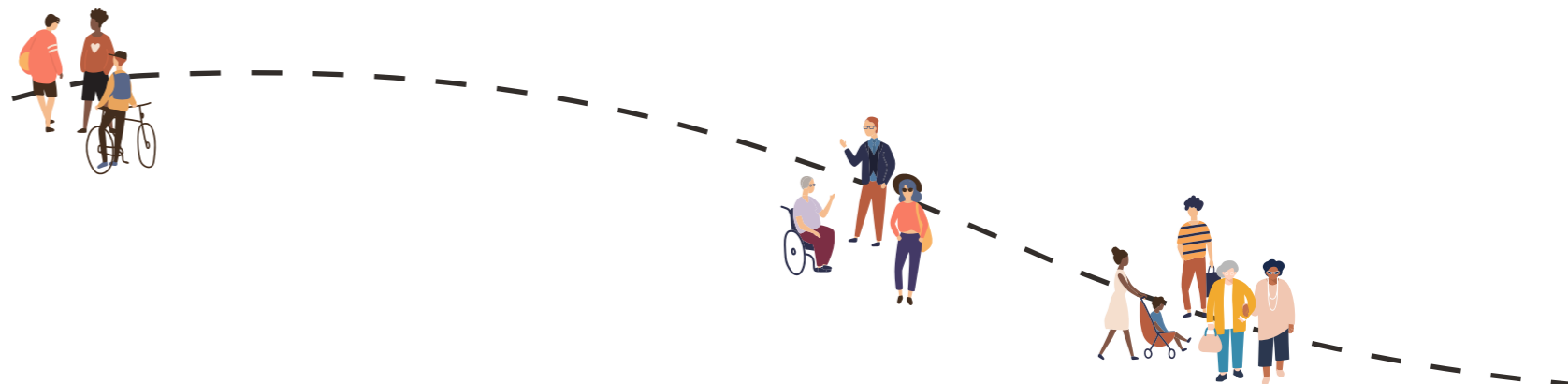


# DEFINITIONS

EMBANKMENT	Is a rail corridor treatment whereby the track sits on an elevated bank, usually a combination of earth and retaining walls. Crossing of the rail corridor is limited at these points.
PRECINCT CORE	Is the area within a 500m radius of the train station.
STATION PRECINCT	Is the area within a 1km radius of the train station.
VIADUCT	Is a rail corridor treatment whereby the track sits on an elevated structure. The rail track is supported by a series of pylons, which allows space under the track to be accessible to the public.

# ABBREVIATIONS

AHD	Australian Height Datum
BRE	Byford Rail Extension
CPTED	Crime Prevention Through Environmental Design
ICIP	Indigenous Cultural Intellectual Property
FPP	Final Place Plan
NCCD	Noongar Cultural Context Document
NOP	Non-Owner Participant
NRG	Noongar Reference Group
MNRG	METRONET Noongar Reference Group
PTA	Public Transport Authority
PPP	Preliminary Place Plan
PPAP	Preliminary Public Art Plan
PSP	Principal Shared Path
SOPS	Sense of Place Statement
SPDG	Station Precinct Design Guide
SPP 7.0	State Planning Policy 7.0 – Design of the Built Environment
UHI	Urban Heat Island
WSUD	Water Sensitive Urban Design



# EXECUTIVE SUMMARY

As part of the METRONET Byford Rail Extension project, the Byford Station Final Place Plan sets out the place planning, public art strategy and landscape concept for the Byford station and its surrounds. The plan focuses on the METRONET deliverables within the project boundary in the area of 500m around the train station at 'Day One' of opening. There has also been some consideration for the station surrounds to adapt to future built form development, as well as the need for park'n'ride spaces evolves.

The report summarises the METRONET objectives and translates these into three tangible touchstones to achieve in the station precinct: a smooth and comfortable transfer, pleasant and meaningful time spending and embedding in the community.

Analysis of the current situation, Aboriginal significance, community perception, station precinct users, the planning framework, together with the station access strategy, form the base for the Final Place Plan. At the core of the plan sits the site-specific Sense of Place Statement. This Statement guides the place planning, public art strategy and design of the architecture (not part of this document) and the public realm (in collaboration with traffic and civil engineering).

The highlights of the design are explained underneath using the DesignWA framework of 10 Principles of Good Design.

## CONTEXT & CHARACTER

*Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place.*

The Sense of Place Statement, which is based on a context and place analysis that was specifically conducted for the Byford station precinct, has guided the Place Plan precinct design. The statement is composed around three themes: 'outdoorish', 'growing' and 'informal', each representing a rich diversity of experiences. There are elements of these themes throughout the precinct, plaza spaces, canopies and station buildings, to contribute to an experience that is uniquely Byford.

## LANDSCAPE QUALITY

*Good design recognises that together landscape and buildings operate as an integrated and sustainable system, within a broader ecological context.*

The landscape plan for Byford Station supports the connection of the town centre with the eastern and western sides of Byford and creates a high-quality environment for people. New streets and pedestrian crossings contribute to the town centre development. The Welcome Place, designed as a 'bush-plaza', includes amenities for youth, children and families, creating a new destination in the town centre, while the adjacent built form takes time to be developed.

## BUILT FORM & SCALE

*Good design ensures that the massing and height of development is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area.*

The built form is made up of a series of linear canopies that meet under the entry roof structure. The entry roof canopy is envisioned as an "Australian Veranda" with multiple purposes. It is the highest built element, signalling the entrance from both east and west approaches, and provides a central focus for orientation and wayfinding. It also provides shelter for both movement through or as a place for congregation as an indoor-outdoor threshold space.

## FUNCTIONALITY & BUILD QUALITY

*Good design meets the needs of users efficiently and effectively, balancing functional requirements to perform well and deliver optimum benefit over the full life-cycle.*

All transfer functionalities of the station precinct are well-served. Station infrastructure, including bus interchange and park n' ride, are well-connected to the road network, and the new PSP improves the cycle connectivity. In the centre of the precinct pedestrian movement is prioritised. Amenities around the Welcome Place (like the kiosk and children's play area) encourage people to stay, relax and socialise, connect with smooth, comfortable, and safe paths of travel.

## SUSTAINABILITY

*Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes.*

The Byford station precinct brings high quality public transport to an emerging town centre, where new residents and businesses benefit from low carbon transport alternatives through train and bus travel. Development lots incorporated into the precinct are able to accommodate denser, mixed-use activities that encourage locals to live and work beside transit. Social connections between the old town centre (east) and the emerging town centre (west) are promoted through the Clara Street at-grade connection, and adjacent future Shire of Serpentine-Jarrahdale community uses south of the station.

## AMENITY

*Good design provides successful places that offer a variety of uses and activities while optimising internal and external amenity for occupants, visitors and neighbours, providing environments that are comfortable, productive and healthy.*

The Byford station precinct has been designed as an attractive place to spend time if not commuting. The Welcome Place provides amenities for children and families, including seating, natural shade and flexible spaces to allow for a number of different uses and functions. Development adjacent to Plaza Road offers opportunities for active uses to open out adjacent to play spaces.

## LEGIBILITY

*Good design results in buildings and places that are legible, with clear connections and easily identifiable elements to help people find their way around.*

The design of Byford Station precinct supports intuitive wayfinding, with a logical future street network that allows for many ways to traverse on foot to and through the station area. Signage is likely to be needed only as a second option. The train station is accessed via Clara Street West, a new street, which crosses the train track to connect the east and west side of the town centre.

## SAFETY

*Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use.*

The safety of pedestrians and drivers has been considered through the extension of Sansimeon Blvd and the connection of Clara Street West with the eastern town centre through the crossing of the train tracks. This creates a natural passage for people, with safe and legible crossing points and station access. In addition, activation of the Welcome Place provides passive surveillance opportunities.

## COMMUNITY

*Good design responds to local community needs as well as the wider social context, providing environments that support a diverse range of people and facilitate social interaction.*

The Byford Station Place Plan has utilised a children- and family-oriented design approach. This is most identifiable in the Welcome Place which provides a range of uses and options for this group. The design has also been grounded by the Sense of Place Statement. It is hoped this will foster a sense of community ownership of and connection with the precinct by the users of this space. Overall, this design provides a well-functioning and safe public transport hub for the community.

## AESTHETICS

*Good design is the product of a skilled, judicious design process that results in attractive and inviting buildings and places that engage the senses.*

The aesthetics of the station precinct are based on the Byford Station Sense of Place Statement. The aesthetics are an expression of the combined 'outdoorish', 'growing' and 'informal' themes identified in this Statement.

The Sense of Place Statements and recommendations it contains set the expectations for a Byford Station design that relates to the local context and meets the DesignWA framework of 10 Principles of Good Design.



FIGURE 2. PLACE PLAN - DAY ONE



**LEGEND**

- |                    |                                |
|--------------------|--------------------------------|
| Train station      | Pedestrian route               |
| Bus station        | Station amenities              |
| Existing building  | Food & Beverage                |
| Future development | Commercial                     |
| Plaza              | Community                      |
| Parkland           | Plaza activities               |
| Water              | Parkland activities            |
| Road & Car park    | black = existing / white = new |
| PSP                |                                |



FIGURE 3. PLACE PLAN - FUTURE





# 01

## INTRODUCTION & PURPOSE

INTRODUCTION	10
WHAT IS A PLACE PLAN?	12

# INTRODUCTION

## BACKGROUND

As part of the METRONET Byford Rail Extension (BRE) Project, the *Byford Station Final Place Plan* (FPP) sets out the place planning, public art strategy and landscape concept for Byford Station and its surrounds. Prior to this, in 2021 a Preliminary Place Plan (PPP) report was produced by WSP/PLACE Laboratory/Coniglio Ainsworth Architects for Byford Station and its surrounding precinct.

The BRE project is currently in the detailed design phase, therefore, the NOP has prepared this document utilising relevant content from the original report as a foundation for key elements of this FPP including drawings and diagrams prepared during detailed design phase. Items within each that read concurrently are cross-referenced, where appropriate. In addition, this document provides enhancements to the analysis with urban surrounds implications arising from an elevated station solution outlined.

Throughout this report, the contextual and urban design analysis and response is considered at the project boundary and a 400-500m radius from the station, known typically as the precinct core (refer Figure 1: Location Plan). Some considerations apply to the station precinct area, which is a 1km radius from the station.

## VALUE OF PLACE PLANNING

This report summarises the METRONET objectives and translates these into three vital elements to achieve in the station precinct:

- a smooth and comfortable transfer;
- a pleasant and meaningful time; and
- embedded in the community.

The BRE project is viewed as a once-in-a-generation opportunity to revitalise existing neighbourhoods by creating new train stations, community open spaces and removing unsafe level crossings. It encompasses the construction of approximately 8km of new track and a new end-of-line station at Byford. The intent is for Byford Station to be expanded with longer platforms to accommodate six-car trains and the Australind line, as well as improve access for users and revitalise the surrounding precinct.

The result of this investment is an opportunity for the station environment to encourage the Byford centre to mature around sustainable transport choices. It can create opportunities for development to address the station edge, while linking activity east to west.

## A DESIGN-LED APPROACH

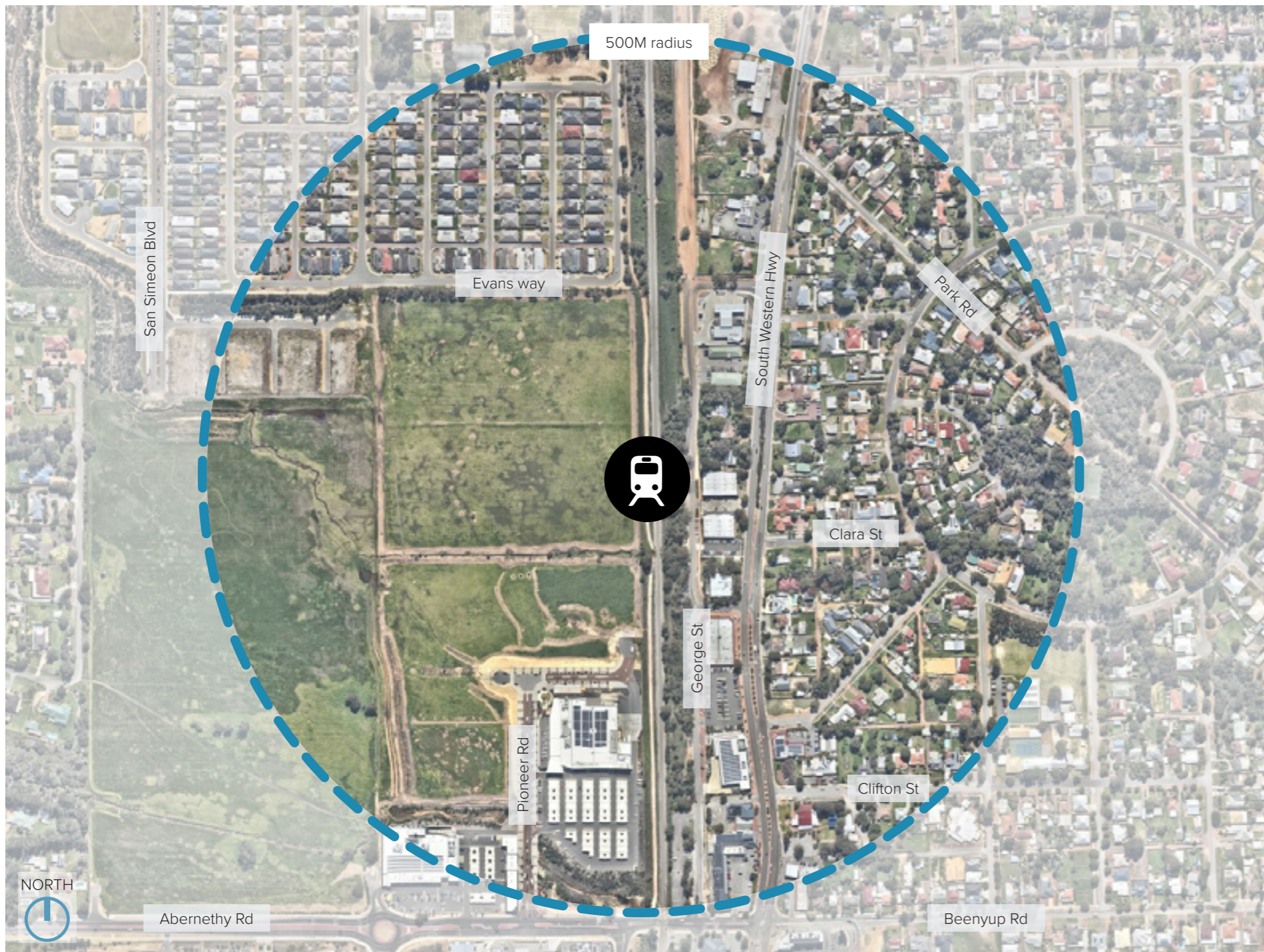
A typical focus for rail infrastructure projects is on the efficient operation of trains and passenger movement. Compared to many other rail projects, the BRE will introduce major infrastructure interventions into existing neighbourhoods, therefore, the impacts and opportunities are wide-reaching and require thoughtful integration to ensure positive contributions to the communities that live around each station.

The infrastructure delivered for the BRE project (railway tracks, viaducts, embankments and station buildings) will not exist in isolation of the neighbourhoods served. Lessons from other cities have shown that the success of elevated rail can be directly linked to design quality. If the stations and rail infrastructure are well designed, it will help to create safe and well-used places near stations and below viaducts. The positive impacts of high-quality redevelopment can follow, creating residential, commercial and civic uses that blend with this new rail infrastructure.

On the contrary, if infrastructure is poorly designed, it can become a social and economic cost to the community that will be very difficult to change. It can also have compounding impacts on safety, freedom of pedestrian movement and future development potential of the surrounding area.

In that regard, the objective of the Byford Station FPP is to help facilitate delivery of high-quality rail infrastructure that:

- Contributes to the delivery of State Government infill targets by providing the impetus for urban renewal and revitalisation of the station precinct;
- Delivers high-quality public spaces that contribute to an enhanced green network;
- Attracts business and residential investment through public domain and other amenity improvements; and
- Enables urban design outcomes that maximise connectivity across the rail corridor and promote cycling and pedestrian movement.



**FIGURE 4. LOCATION PLAN**

Source: Byford Rail Extension – Concept Design, ‘Byford Station Precinct Preliminary Place Plan’, WSP/PLACE Laboratory (2021) (BRE-MNO-WSP-PL-RPT-0004)

**BYFORD**

Byford is in the south-eastern corridor of the Perth Metropolitan region within the Shire of Serpentine Jarrahdale. Byford is located in the northern portion of the Shire with the Byford Town Centre positioned 7km south of Armadale and 35km south-east of the Perth CBD via Thomas Road and Kwinana Freeway.

Land uses are typically residential development, with growing commercial and retail activity. The area’s recent rural-residential and equine history is still visible, and an important part of the place. To the east is the Darling Scarp and State Forest which provide nearby nature tourism and recreational experiences.

According to the Australian Bureau of Statistics Byford had a population of 3,335 people in 2001. In 2016 the ABS estimated population for the Byford District Structure Plan area was 18,123 people, representing an increase of over 440%. This growth has put pressure on existing services, facilities, and infrastructure.



**SURROUNDING LOCAL GOVERNMENTS**

# WHAT IS A PLACE PLAN?

The vision for METRONET is a well-connected Perth with more transport, housing and employment choices achieved through delivery of integrated land use and transport solutions, where station precincts become desirable places to work, live, play and invest. Central to the success of this philosophy is careful consideration of the broader context in which each precinct, station and infrastructure intervention sits. This vision is one of the primary drivers behind the preparation of this FPP.

As illustrated in Figure 2, the Preliminary Place Plan is typically established prior to commencement of the concept design stage. Its role is carried forward through the Final Place Plan to construction. The document is the foundation for orderly, well-integrated and coordinated delivery of METRONET station precincts and infrastructure. In that regard, the purpose of the Byford Station FPP is to:

- Provide a response to METRONET Strategies, Station Precinct Design Guide (SPDG) and the Design WA policy suite;
- Provide a basis for integration with future precinct design and precinct planning in the surrounding station precinct;
- Inform station infrastructure engineering, architectural design and decision-making;
- Inform evaluation of station infrastructure proposals and delivery of detailed design and planning at delivery stage (including procurement and development applications); and
- Inform design review and development assessment of station infrastructure and precinct planning proposals.

## METHODOLOGY

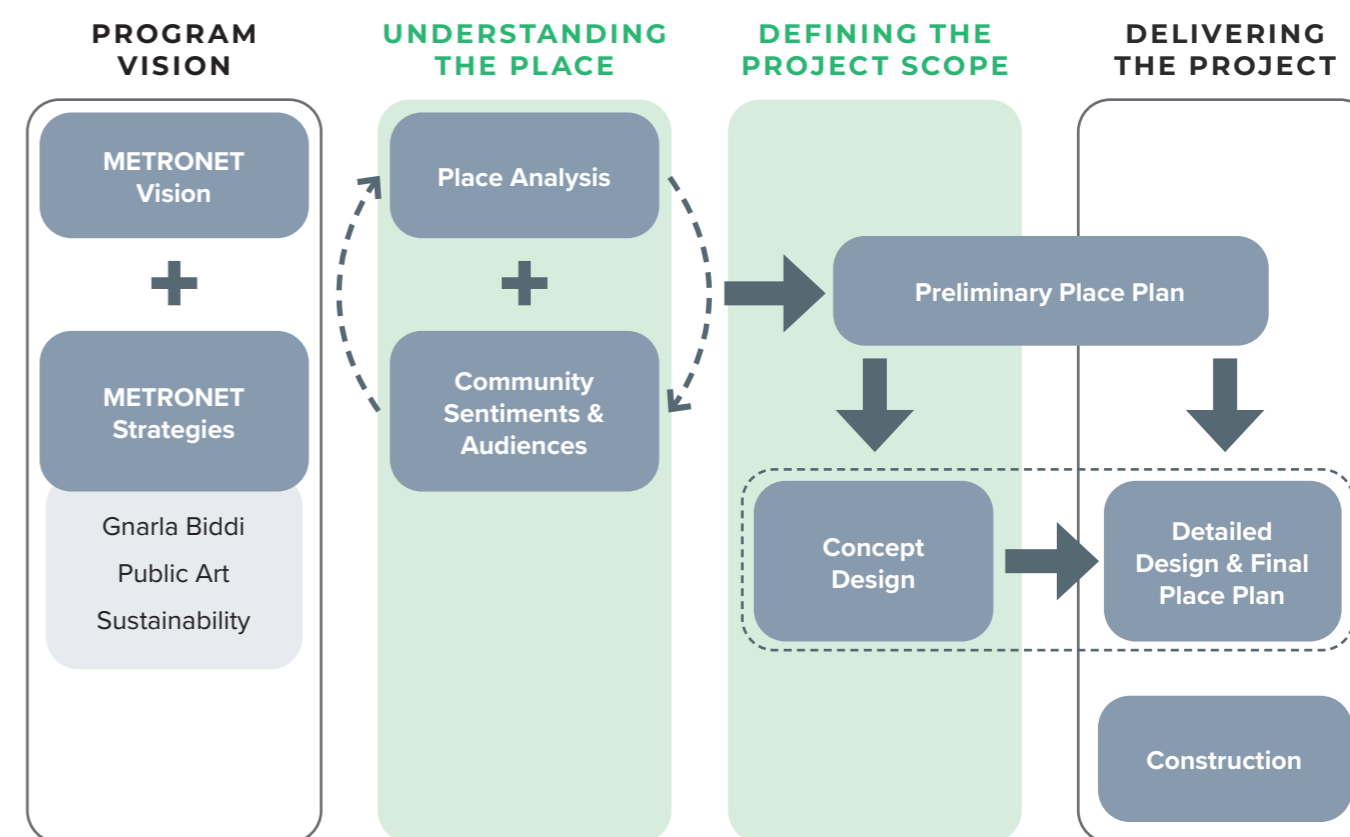
This FPP represents the second step in a detailed urban design process that identified items such as station location and track typologies (e.g.. viaduct and embankment types), with the findings based on a number of options supplied by METRONET/Public Transport Authority (PTA). This is further explored on the following page.

## STRUCTURE

This FPP includes the following sections:

1. INTRODUCTION & PURPOSE
2. PLANNING FRAMEWORK: Assessment of METRONET Strategies, SPDG and Design WA, and relevant planning documents.
3. CONTEXT ANALYSIS: Review of the broader area and local context to assist with definition of opportunities and constraints.
4. NARRATIVE ANALYSIS: Analysis of future users and current sentiments about the place.
5. SENSE OF PLACE: Identification of stories and definition of Sense of Place Statement (SOPS).
6. FINAL PLACE PLAN: Includes Place Principles, METRONET policy response, public realm intent and Place Plan.
7. LANDSCAPE: Landscape context and investment levels.
8. ARCHITECTURE: Relationship between Sense of Place Statements and the architectural approach.
9. PUBLIC ART: Preliminary Public Art Plan
10. IMPLEMENTATION: Ways the design considers the Sense of Place Statement.

FIGURE 5. THE ROLE OF A PLACE PLAN



*The main activities in the Place Planning exercise are highlighted in green.*

## FIGURE 6. PLACE PLAN TO MEET METRONET OBJECTIVES

Besides the traditional range of technical engineering, operational and costs aspects, METRONET sets out to deliver easily accessible travel options, communities with a sense of belonging and unlock development potential around stations. The FPP translates the five METRONET Objectives, outlined on page 16, into tangible requirements for the station precinct. The resulting three 'touchstones' are identified below.



### SMOOTH AND COMFORTABLE TRANSFER

Delivering better connections and easy access to travel choices requires more than train and bus infrastructure. The ease that the traveller experiences through the whole journey, from door-to-door, determines the overall travel experience.

### PLEASANT AND MEANINGFUL TIME SPENDING

An inevitable aspect of traveling is waiting. Being able to spend your time in a pleasant or useful way contributes to a pleasant journey. Unlike driving a car, which demands attention to vehicles and traffic, travelling by public transport has the potential to provide more freedom to do other things. To achieve user satisfaction, the travelling spaces need to support these other things a traveller might want to do.

### EMBEDDED IN THE COMMUNITY

METRONET sets out to create communities with a sense of belonging, embedded in integrated land uses. This means station precincts need to be more than just transport hubs – not stand-alone areas that feel anonymous, but lively places with stories, activities and personality, that feel occupied and 'owned' by the communities they service.

Source: Byford Rail Extension – Concept Design, 'Byford Station Precinct Preliminary Place Plan'; WSP/PLACE Laboratory (2021) (BRE-MNO-WSP-PL-RPT-0004)



# 02

## PLANNING FRAMEWORK

METRONET STRATEGIES	16
METRONET STATION PRECINCT DESIGN GUIDE	18
STRATEGIC PLANNING CONTEXT	20
PLANNING FRAMEWORK	22



# METRONET STRATEGIES

## METRONET OBJECTIVES

The METRONET program is a catalyst to turn large areas of land around new stations into desirable places for investment in housing, jobs and services for growing communities.

METRONET plans consider what people need for work, living and recreation within these future urban centres with a train station at their heart. The five objectives underpinning the METRONET program are: economically viable; accessible to all; community; future proofing and integrated land use.

Each station precinct has unique physical and functional characteristics that will affect its potential to develop as a liveable, vibrant urban centre. Land use and infrastructure planning for each station precinct must support the place-specific outcomes sought, in consideration of the long-term sustainable growth and development of Perth.

To unlock these unique characteristics and achieve appropriate outcomes per station precinct, METRONET has developed the SPDG. This guide together with the PTA movement hierarchy (refer diagram opposite Figure 6) provide the foundation for urban design decisions that result in vibrant, activated station precincts that welcome and serve their communities, enhancing movement to, through and within station precincts.



### Economically viable

Support economic growth with better connected businesses and greater access to jobs.



### Accessible to all

Deliver infrastructure that promotes easy and accessible travel and lifestyle options.



### Community

Create communities that have a sense of belonging and support Perth's growth and prosperity.



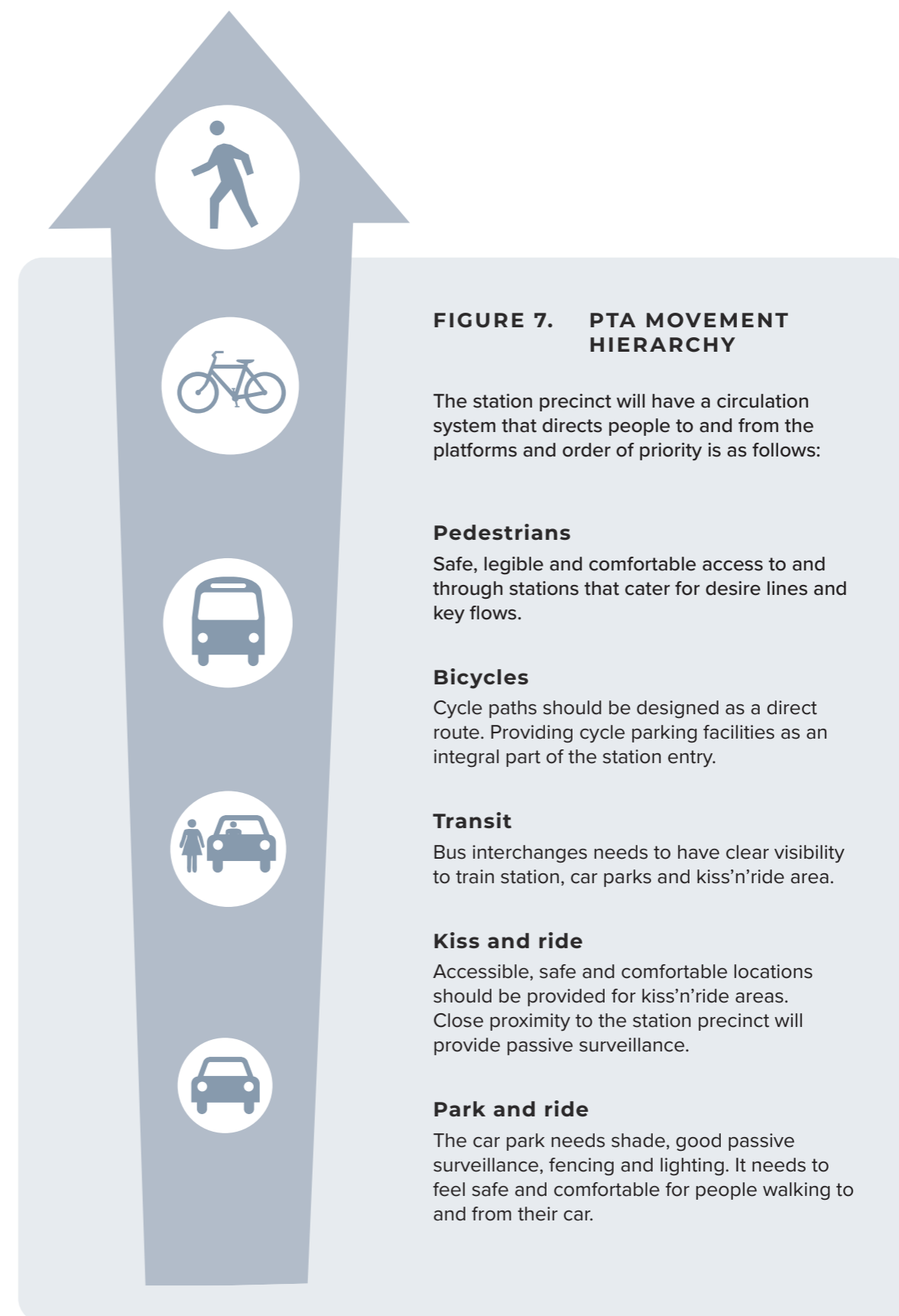
### Future proofing

Plan for Perth's future growth by making the best use of our resources and funding.



### Integrated land use

Lead a cultural shift in the way government, private sector and industry work together to achieve integrated land use and transport solutions for the future of Perth.



**FIGURE 7. PTA MOVEMENT HIERARCHY**

The station precinct will have a circulation system that directs people to and from the platforms and order of priority is as follows:

#### **Pedestrians**

Safe, legible and comfortable access to and through stations that cater for desire lines and key flows.

#### **Bicycles**

Cycle paths should be designed as a direct route. Providing cycle parking facilities as an integral part of the station entry.

#### **Transit**

Bus interchanges needs to have clear visibility to train station, car parks and kiss'n'ride area.

#### **Kiss and ride**

Accessible, safe and comfortable locations should be provided for kiss'n'ride areas. Close proximity to the station precinct will provide passive surveillance.

#### **Park and ride**

The car park needs shade, good passive surveillance, fencing and lighting. It needs to feel safe and comfortable for people walking to and from their car.



### GNARLA BIDDI STRATEGY

METRONET's Gnarla Bididi Aboriginal Engagement Strategy ensures positive contribution and engagement of Aboriginal stakeholders. For the BRE project more broadly, Noongar culture is acknowledged by:

- Planning to include Noongar culture in the infrastructure designed and built as part of the METRONET program;
- Educating those involved in METRONET on the significance of Noongar culture;
- Noongar input provided into project planning and delivery processes through the Noongar Reference Group (NRG); and
- Planning to include Workforce and Industry participation for Noongar and other Aboriginal people.

For the Byford Station Precinct, this will be achieved by:

- Respecting and discussing the significance of Noongar culture as a project delivery team;
- Investigating opportunities to celebrate Noongar language and place names in line with the Gnarla Bididi Stream 2 objectives and the Public Art Strategy. Opportunities may include entry statements, public art, wayfinding, interpretive signage or other methods; and
- Investigating ways that workforce and Industry participation for Noongar and other Aboriginal people could be included in the project.

This work will be progressed in consultation with the METRONET NRG.



### Noongar Cultural Context

Each METRONET project has its own Noongar Cultural Context Document (NCCD) specific to the place. The NCCD for the BRE project is the METRONET Beenyup / Byford NCCD.



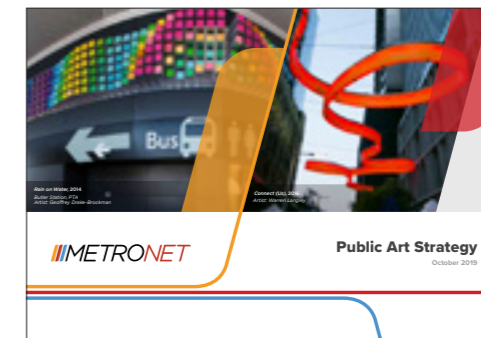
### SUSTAINABILITY STRATEGY

METRONET contributes to Perth's sustainable future by offering people alternative and sustainable travel choices. The METRONET Sustainability Strategy outlines how the program and projects maximise positive environmental, social and economic outcomes for communities served by METRONET projects, and the broader impact on the Perth metropolitan area.

The project affects all four key pillars of sustainability set out in the METRONET Sustainability Strategy, being People and Place, Environment, Economic and Governance. Therefore, this PPP contributes to METRONET's sustainability objectives for station precincts by:

- **PEOPLE AND PLACE:** Delivering adaptable, accessible and connected places for people;
- **ENVIRONMENT:** Conserving and protecting natural ecosystems and resources;
- **ECONOMY:** Supporting equitable economic development opportunities; and
- **GOVERNANCE:** Initiatives and programs to achieve sustainability objectives will be delivered through more detailed planning for the project.

This PPP provides guidance for more detailed planning for sustainability initiatives including (but not limited to) landscaping, tree planting, water sensitive urban design (WSUD), and improving access to public transport through increased connectivity, walkability, cycle routes and amenity in and around station precincts.



### PUBLIC ART STRATEGY

Public art plays an important role in the cultural life of places providing social, economic and environmental benefits. The METRONET Public Art Strategy will ensure the program's legacy of transformative transport infrastructure links the projects together and the transport infrastructure contributes to the broader place's identity.

Public art for the project should be delivered against the overarching theme, exploring the sub-themes 'connections' and 'place'. Where possible, the following opportunities should be explored:

- Noongar language/names in placemaking (e.g. incorporation into interpretive signage around the station, referencing local heritage, stories, flora and fauna, through hard landscaping and other appropriate design treatments); and
- Assist with synergies that achieve mutually beneficial landscaping outcomes between the Sustainability Strategy, Gnarla Bididi and the Public Art Strategy. This can be achieved by integrating the story of water/topography and flora and fauna into landscaping.

A Preliminary Public Art Plan has been prepared as part of the Byford Station FPP, detailed in the later sections of this report. This work will be progressed in consultation with the METRONET NRG, through the METRONET Gnarla Bididi Strategy Coordinator.

# METRONET STATION PRECINCT DESIGN GUIDE

## STATION TYPOLOGY

The Station Precinct Design Guide (November 2019) defines six types of station precincts. The Byford Station Precinct is defined as a Town Centre (SP3), which is defined as below:

*Town centre station precincts are hubs for the immediately surrounding suburbs, and provide a range of shops, employment opportunities, community services and facilities to the local and wider area. They have significant transit-oriented development potential, and support a variety of housing types including higher density residential in mixed-use environment close to the station and centre amenities.”*



The table, right, summarises the expected outcomes regarding the design and integration of various station precinct functionalities and amenities within this station precinct typology.

Source: Byford Rail Extension – Concept Design, ‘Byford Station Precinct Preliminary Place Plan’, WSP/PLACE Laboratory (2021) (BRE-MNO-WSP-PL-RPT-0004)

TOWN CENTRE SP3		CORE	FRAME
INTERSECTION & CROSSINGS	Preferred	Controlled four way intersection, no splitter lanes Micro roundabout	
	Considered		Splitter lane intersection Main road r/about
TRANSIT INTEGRATION – RAIL	Preferred		
	Considered		
TRANSIT INTEGRATION – BUS	Preferred	On street Integrated or stacked interchange Loop at grade	
	Considered	Twin platform at grade	
STATION TYPE	Preferred	Integrated station Underground station	Active pavilion
	Considered	Pavilion	Canopy
STATION DEDICATED PARKING	Preferred	No park'n'ride	Limited park'n'ride (stacked or decked)
	Considered	Limited park'n'ride	Moderate park'n'ride (stacked or decked)
STATION PRECINCT PARKING	Preferred	On street Stacked or decked	
	Considered	Distributed at grade	
PUBLIC REALM & PUBLIC OPEN SPACE	Preferred	People streets Plaza or square Play space Urban park	
	Considered		Natural recreation Playing fields

TABLE 2. STRATEGIC CENTRE SP2 GUIDELINES

## INFRASTRUCTURE DESIGN

A typical focus for rail infrastructure projects is for efficient operation of trains and passenger movement, but the impacts and opportunities are much wider than this. If infrastructure is well designed for its location, it will create safe and well-used places around stations and rail tracks. The positive impacts of high-quality redevelopment can follow, creating residential, commercial and civic uses that blend with the new rail infrastructure. Table 2 captures the infrastructure design relative to place and public realm considerations.

However, if infrastructure is poorly designed, it can become a social and economic cost to the community that will be very difficult to change and can have compounding impacts on safety, freedom of pedestrian movement and future development potential.

The opportunity here is also for new desire lines, helping to stitch and connect both side the rail reserve together as well as create new public realm spaces for civic and recreational uses and vegetated landscapes.

Place planning questions that should inform design in future phases include:

- How well does the station relate to its surroundings – i.e. the landscape and built environment, including shops, homes and civic buildings?
- Does the station offer safe and active community uses beside or under tracks?
- Does the station create places that the community can feel proud of and take ownership over?
- Will infrastructure 'get better with age' as development occurs and landscapes mature?

BYFORD STATION – AT GRADE	
<b>CURRENT PROPOSED STATUS</b>	The Concept Design has been developed to reduce the overall extent and mass of the station. Key change has been the redesign of the main canopy and repositioning of the CSO. This allows for the future extension of the metro and Bunbury Express rail lines, including OLE, without the need to demolish or alter any structures.
<b>KEY POINTS</b>	
<b>IMPROVED EXPERIENCE</b>	<ul style="list-style-type: none"> <li>• Greater legibility from MMTI to station entry due to simple yet effective canopy structures with minimal columns that impact pedestrian movement.</li> <li>• Greater interface with Welcome Plaza and future Town Square.</li> <li>• Minimising travel distances from MMTI to the platforms.</li> </ul>
<b>IMPROVED SAFETY</b>	<ul style="list-style-type: none"> <li>• Respecting and maintaining PTAs movement hierarchy with pedestrian primacy.</li> <li>• CPTED principles foremost in mind when designing building line interfaces and nodes - maintaining clear passive surveillance throughout the station precinct.</li> </ul>
<b>IMPROVED VALUE FOR MONEY</b>	<ul style="list-style-type: none"> <li>• Employ kit-of-parts approach to streamline construction process.</li> <li>• Minimise building extent and mass to reduce structure, façade and cladding.</li> <li>• Reduced maintenance and cleaning to building envelope.</li> <li>• Design allows for the future extension of the metro and Bunbury Express rail lines without the demolition of any structures.</li> </ul>

**TABLE 3. PRELIMINARY STATION DESIGN SUMMARY**

# STRATEGIC PLANNING CONTEXT

The BRE will be delivered by a range of contractors and delivery partners. To ensure the outcomes are achieved, METRONET has developed and provided a suite of documents to guide planning and delivery:

- METRONET Gnarla Bidi 'Our Pathways' Strategy;
- METRONET Beenyup / Byford NCCD;
- METRONET Public Art Strategy;
- METRONET Sustainability Strategy;
- Armadale Station Precinct PPP 'At-grade' (PLACE Laboratory);
- Byford (Beenyup) Station Precinct PPP (PLACE Laboratory);
- City of Armadale Strategic Community Plan 2013-2028; and
- Shire of Serpentine Jarrahdale Strategic Community Plan 2017-2027.

Delivery partners will continue to respond to these strategies, to develop the project in alignment with the overarching project vision, with the aim to undertake a holistic and integrated design approach that puts people first.

The project as outlined in Figure 7 will consider the relevant strategies, guidelines and policies at play within the region of the site to ensure seamless integration with the community's expectations and the best outcome for all parties involved.

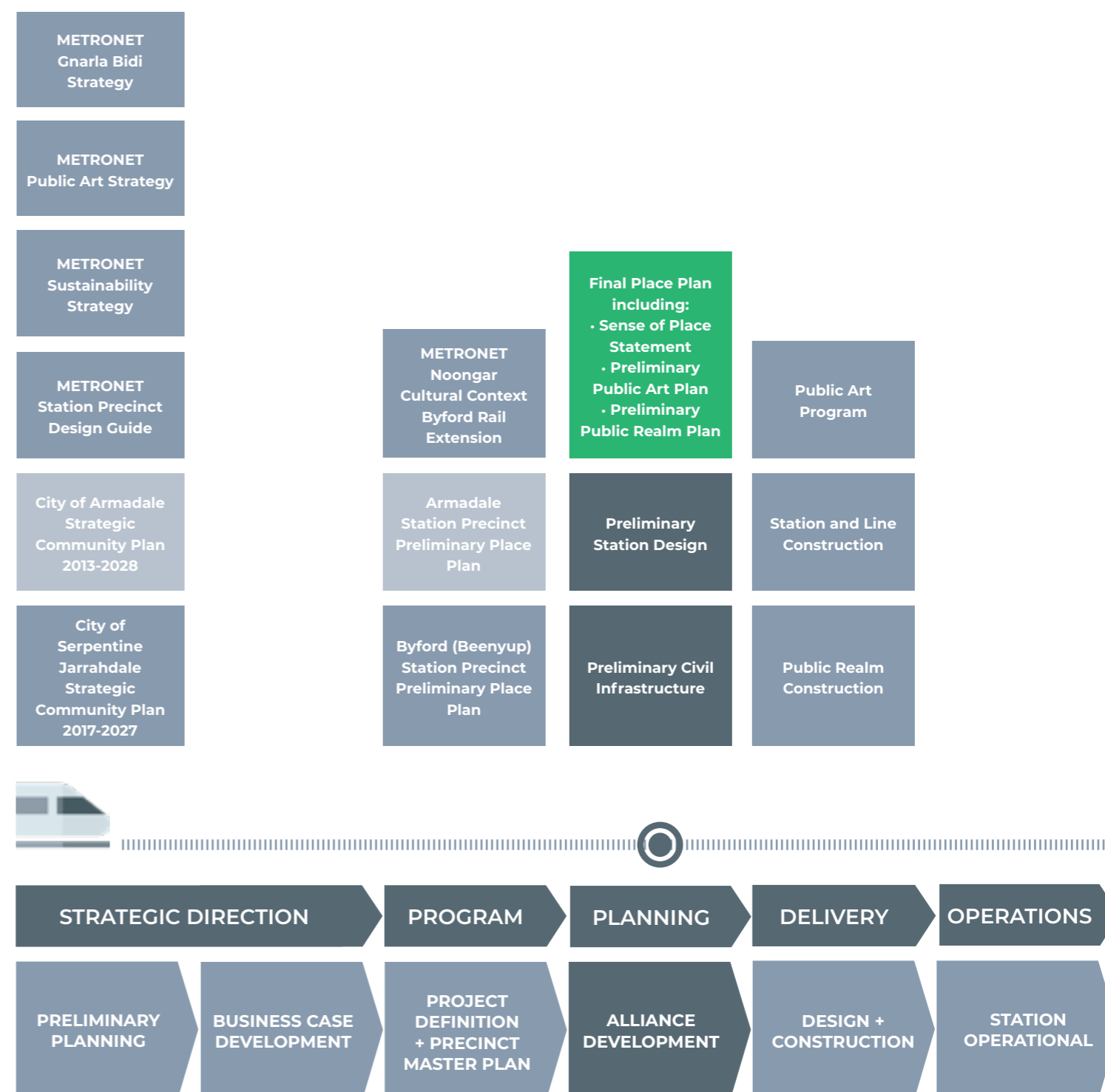


FIGURE 8. STRATEGIC PLANNING CONTEXT

## PERTH AND PEEL@3.5 MILLION

Perth and Peel@3.5million is a suite of strategic land use planning documents that provide a framework for future growth to 2050. The strategy recognises the benefits of a consolidated and connected city utilising the region's previous historic patterns of urban growth. It is divided into four sub-regional frameworks, which provide more detailed guidance on future land use and development for a city of 3.5 million people.

The Byford Station Precinct is located within Southern Metropolitan Sub-regional Planning Framework boundary. This Framework identifies 10 principles and a number of precinct types, all of which support a coordinated approach to urban consolidation. The framework suggests infill development should be focussed in activity centres, station precincts and along urban corridors. It also identifies that industrial centres should be preserved and that an established green network is required. The precinct is identified as an activity centre that can support future urban consolidation.

Having consideration for the above, it is important that the Byford Station FPP promotes a high-quality urban design that creates opportunities to:

- Stimulate revitalisation of the precinct to attract business and residential investment to an area;
- Contribute towards driving urban renewal and meeting the State's urban infill targets;
- Improve pedestrian and cycling connectivity;
- Improve public domain and amenity in existing areas; and
- Address gaps in open space provision to support an enhanced green network.



## CITY OF SERPENTINE JARRAHDALE STRATEGIC COMMUNITY PLAN 2017-2027

The City of Serpentine Jarrahdale Strategic Community Plan defines the Byford as the bustling centre of the Shire of Serpentine Jarrahdale. The plan outlines that Byford continues to grow with new residential estates established each year. The town site offers shopping complexes, popular cafés and restaurants, whilst maintaining its unique rural charm. This report draws on the community and place values outlined in the community strategic plan to help define what is unique and authentic about Byford which in turns assists with guiding design outcomes.

### PRECINCT SPECIFIC DOCUMENTS

- Shire of Serpentine Jarrahdale, Byford District Structure Plan, 2018 (Dec)
- Shire of Serpentine Jarrahdale, Byford Local Structure Plan, 2015 (Dec)
- Shire of Serpentine Jarrahdale, Byford Town Centre Built Form Guidelines, 2014 (Sep)
- Shire of Serpentine Jarrahdale, Byford Town Centre Public Realm LPP3.5, 2014 (Sep)
- Shire of Serpentine Jarrahdale, Byford Town Centre Civic Master Plan, 2022 (Jul)
- Shire of Serpentine Jarrahdale, Serpentine Jarrahdale – Activity Centres Final Report, 2012
- Shire of Serpentine Jarrahdale, District Water Management Strategy
- Shire of Serpentine Jarrahdale, Tourism Strategy 2018-23, 2018 (July)
- Shire of Serpentine Jarrahdale, Urban and Rural Forest Strategy (Information Sheet), 2018
- Shire of Serpentine Jarrahdale, Urban and Rural Forest Strategy 2018-2028, 2018
- Shire of Serpentine Jarrahdale, State of the Environment Report 2019, 2019 (Dec)
- Shire of Serpentine Jarrahdale, Health and Well-being Strategy, 2019
- Shire of Serpentine Jarrahdale, Public Art Strategy and Public Art Masterplan 2019-2023

# PLANNING FRAMEWORK

The Byford District Structure Plan was prepared in 2005 and updated in 2009 to provide high-level strategic guidance on future planning and development in the Byford locality. More than ten years on, the Shire has undergone a significant change as a result of several major strategic initiatives including the Tonkin Highway Extension and the passenger rail extension by METRONET, will respond to exponential population growth in Byford.

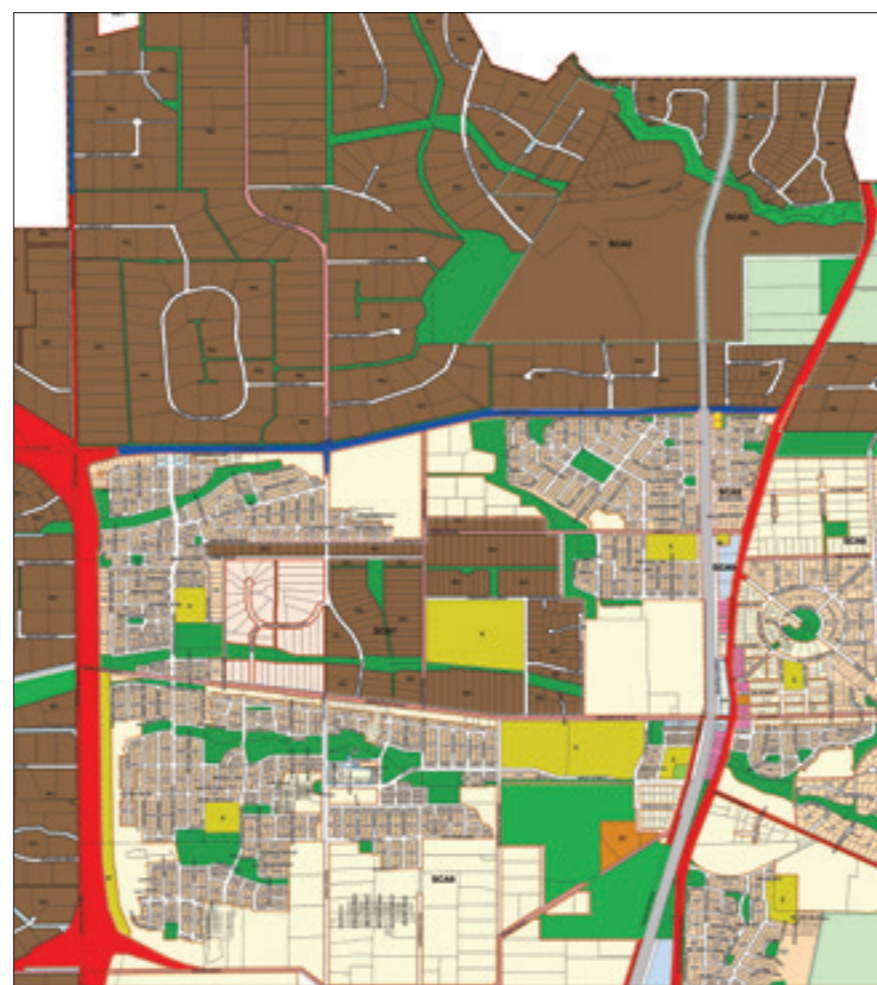
In 2018 the Department of Planning, Lands and Heritage released the Perth and Peel@3.5 million strategic planning framework. This strategy identified that the Shire could expect to accommodate an additional 90,000 people (113,000 in total). The SJ2050, the Shire's high-level strategic vision, explores how best to distribute this significant increase in population and concludes that approximately 60,000 people would call the Byford District Structure Plan area home; three times the current population.

While the population will increase the SSJ realise that development within the Byford District Structure Plan area will be guided by a strong vision and objectives to ensure that the semi-rural character and values of the community are maintained. The Plan outlines the importance of balancing a vibrant new development with the laid-back lifestyle of Byford, ensuring that the public spaces celebrate the existing environmental assets and a landscape integrated response to water management.

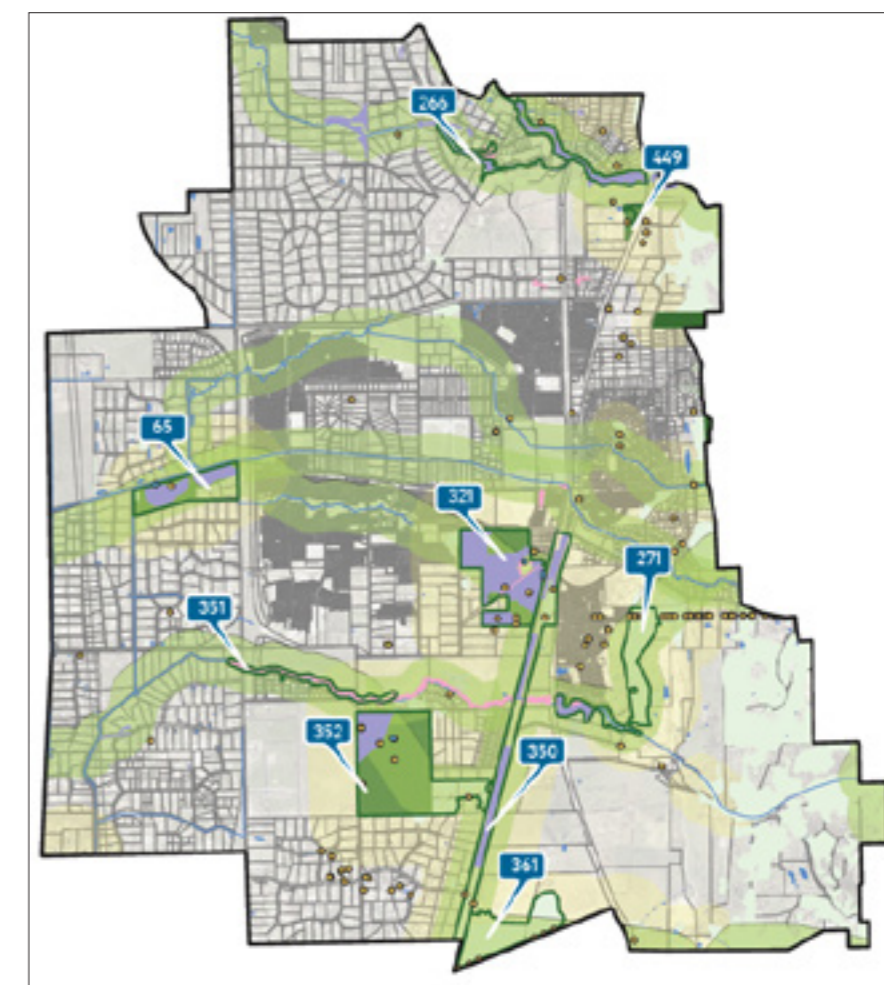
The public open space located in the District Structure Plan (DSP) considers notable remnant vegetation and wetland areas. The plan shows multiple-use corridors based on the principles of wetland and vegetation protection, recreation function, water conveyance, and amenity. These corridors should perform an active and passive recreation function while simultaneously managing urban stormwater flows, improving water quality, ecological health, and habitat value. Inclusion of these elements provides future urban areas with a sense of place.

The amended Byford Town Centre Local Structure Plan reinforces the DSP key moves by supporting a mix of retail, commercial, increased residential density and mixed-use main street development. The Public Open Space within the Byford Town Centre and station precinct need to incorporate cultural heritage sensitively and reference the semi-rural character. On the opposite side of the station precinct along Clara Street West is a new public plaza to adjoin Community Purpose building. This means the station precinct 'welcome place' needs to support and direct people to the public plaza.

The relationship between METRONET car parking and sleeved development is also an important consideration.



**BYFORD DRAFT LOCAL PLANNING SCHEME 3**



**EXISTING ENVIRONMENTAL ANALYSIS, BYFORD DISTRICT STRUCTURE PLAN**

Source: Byford Rail Extension – Concept Design, 'Byford Station Precinct Preliminary Place Plan', WSP/PLACE Laboratory (2021) (BRE-MNO-WSP-PL-RPT-0004)



**BYFORD TOWN CENTRE CONCEPT PLAN**

**BYFORD TOWN CENTRE PLAN**

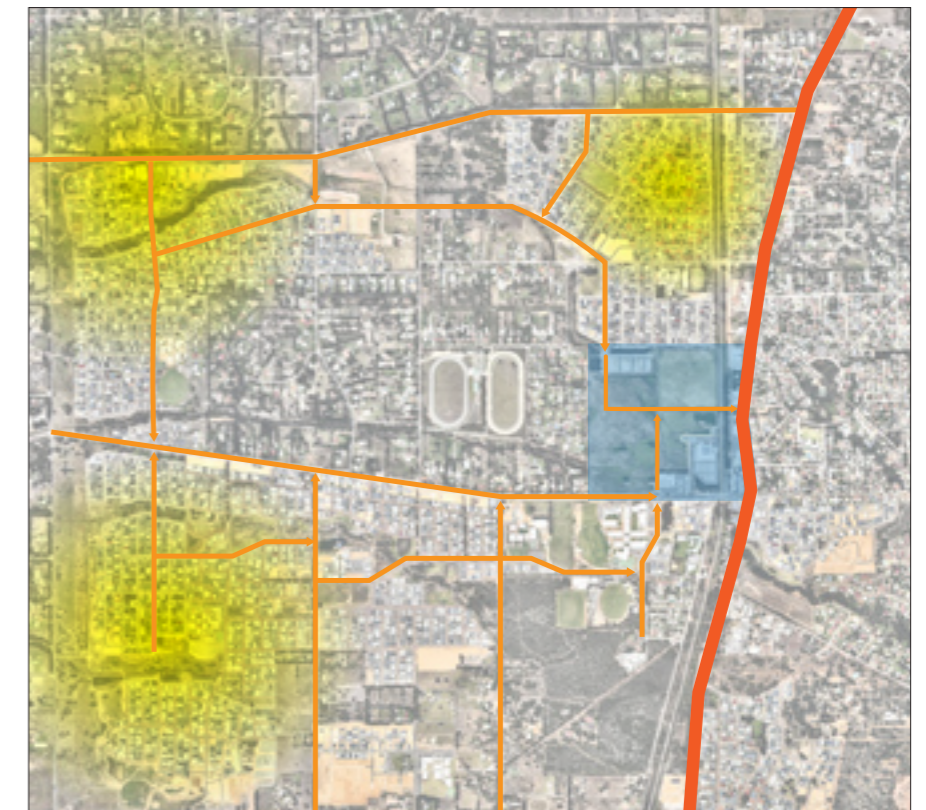
The Byford Town Centre Local Structure Plan (2011) was amended in 2020 to align with the Byford District Structure Plan in a collaborative approach through: realignments and rationalisation of roads, reconfiguration of multi-use corridors, additional commercial land frontage, increased residential densities, and the inclusion of a civic centre within a public open space reserve.



**BYFORD AMENDED LOCAL STRUCTURE PLAN**

**BYFORD AMENDED LOCAL STRUCTURE PLAN**

Further re-alignment of road networks and refinement of lot configurations has occurred through the amended local structure plan. This plan anticipates the connection of Clara Street West, at the future Byford Station to connect the town centre over both sides of the railway track.



**INTEGRATED BYFORD TOWN CENTRE ROAD NETWORK**

**INTEGRATED BYFORD TOWN CENTRE ROAD NETWORK**

The population increases focus on areas northwest, west and southwest of the new Byford Town Centre precinct. To support the Byford community to access the town centre, connectivity needs to occur as shown on the plan above.





# 03

## CONTEXT ANALYSIS

PERTH RAILWAY CHARACTER	26
BYFORD RAIL EXTENSION	28
RELATION TO COUNTRY AND LANDSCAPE SYSTEMS	30
ENVIRONMENT	32
BUILT FORM AND HEAT	33
LAND USE	34
DISTRICT LEVEL DESTINATIONS	35
LOCAL ACTIVITIES	36
PEDESTRIAN ACCESS ROUTES	38
CYCLE ACCESS ROUTES	39
BUS ACCESS ROUTES	40
VEHICLE ACCESS ROUTES	41
ENGAGING WITH AUDIENCES	42
OPPORTUNITIES & CONSTRAINTS	44

# PERTH RAILWAY CHARACTER

Perth's railway network spans a range of different conditions across hundreds of kilometres. The character of each train line (and portions within) varies, as they are responsive to their physical, social and functional context. Each has unique features that the design of stations, and surrounding landscape and spaces can capitalise on. For the Armadale line this is the view and connection to the hills landscape.

Overall, Perth will have six train lines with one spur line. These lines are listed below, with a description and list of their unique features:

LINE	DESCRIPTION	UNIQUE FEATURES
<b>ARMADALE/ THORNLIE</b>	Travels south-east direction to Armadale. The Australind continues along the same track to Bunbury. A spur line to Thornlie.	Views of the hills.
<b>FREMANTLE</b>	Goes in westerly direction towards Fremantle. Major stations include Subiaco and Claremont. When trains arrive at Perth they continue through to the Midland Line.	Views of the ocean and river crossing.
<b>JOONDALUP</b>	Heads in northern direction, along the Mitchell Freeway corridor. Future expansion plans provide for the extension of the line to Yanchep.	Predominantly Freeway experience with diverse surrounding views.
<b>MANDURAH</b>	Travels southward on the Kwinana Freeway to Kwinana, then curving south-west towards Rockingham through a bush landscape and then south to Mandurah	Leda Nature Reserve and Lake Coo loongup.
<b>MIDLAND</b>	Goes east towards Midland. TransWA services diverge and continue to Kalgoorlie (the Prospector) and to Merredin (the AvonLink).	Travels through the historical suburbs.
<b>MORLEY/ ELLENBROOK</b>	This future line will travel north-east to Ellenbrook. It starts in Morley which has an establish suburban feel, Malaga which has views to the hills, Whiteman Park which is a bush setting and then Ellenbrook which has a rural town vibe.	Whiteman Park bush setting with Tram transfer.

**TABLE 4. METROPOLITAN RAIL LINE CHARACTERS**

Source: Byford Rail Extension – Concept Design, 'Byford Station Precinct Preliminary Place Plan', WSP/PLACE Laboratory (2021) (BRE-MNO-WSP-PL-RPT-0004)



**LEGEND**

- Train line
- Ⓡ Railway river crossing
- ✈ Airport
- 🎓 University
- 🏥 Hospital
- 📍 City
- 🌊 Significant beach
- 🌿 Wildlife attraction

**CHARACTER STATIONS**

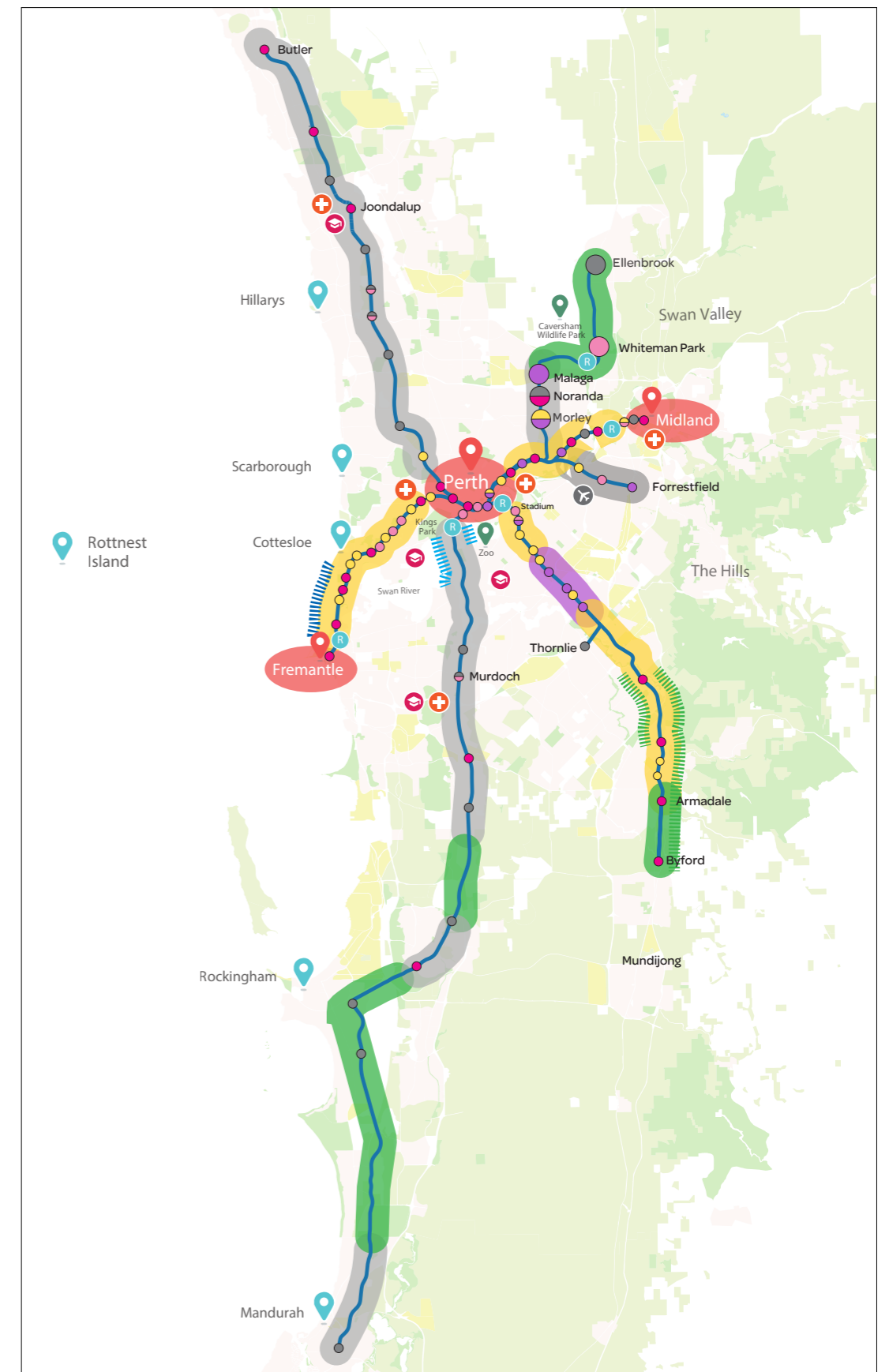
- Suburban
- Parking lot
- Main street
- Industrial

**CHARACTER TRAIN LINE**

- Historical suburban
- Bush feel
- Freeways, highways
- Tunnel
- City
- Ocean views
- Hills views
- River views

**LAND-USE**

- Forest and recreation
- Ports and industrial
- Rural
- Urban Living



**FIGURE 9. RAILWAY CHARACTER ON METROPOLITAN SCALE**

BYFORD RAIL EXTENSION | BYFORD BEENYUP STATION FINAL PLACE PLAN

# BYFORD RAIL EXTENSION

As part of the wider Perth railway network, the Byford Rail Extension is an eight kilometre extension of the Armadale Line, from Armadale Station to Byford Town Centre. A series of rail and station upgrades, and additions will improve public transport services to the established and emerging neighbourhoods in this area. Byford Station sits within the Byford Town Centre, which is sited amongst open spaces and walking trails that connect to the foothills.

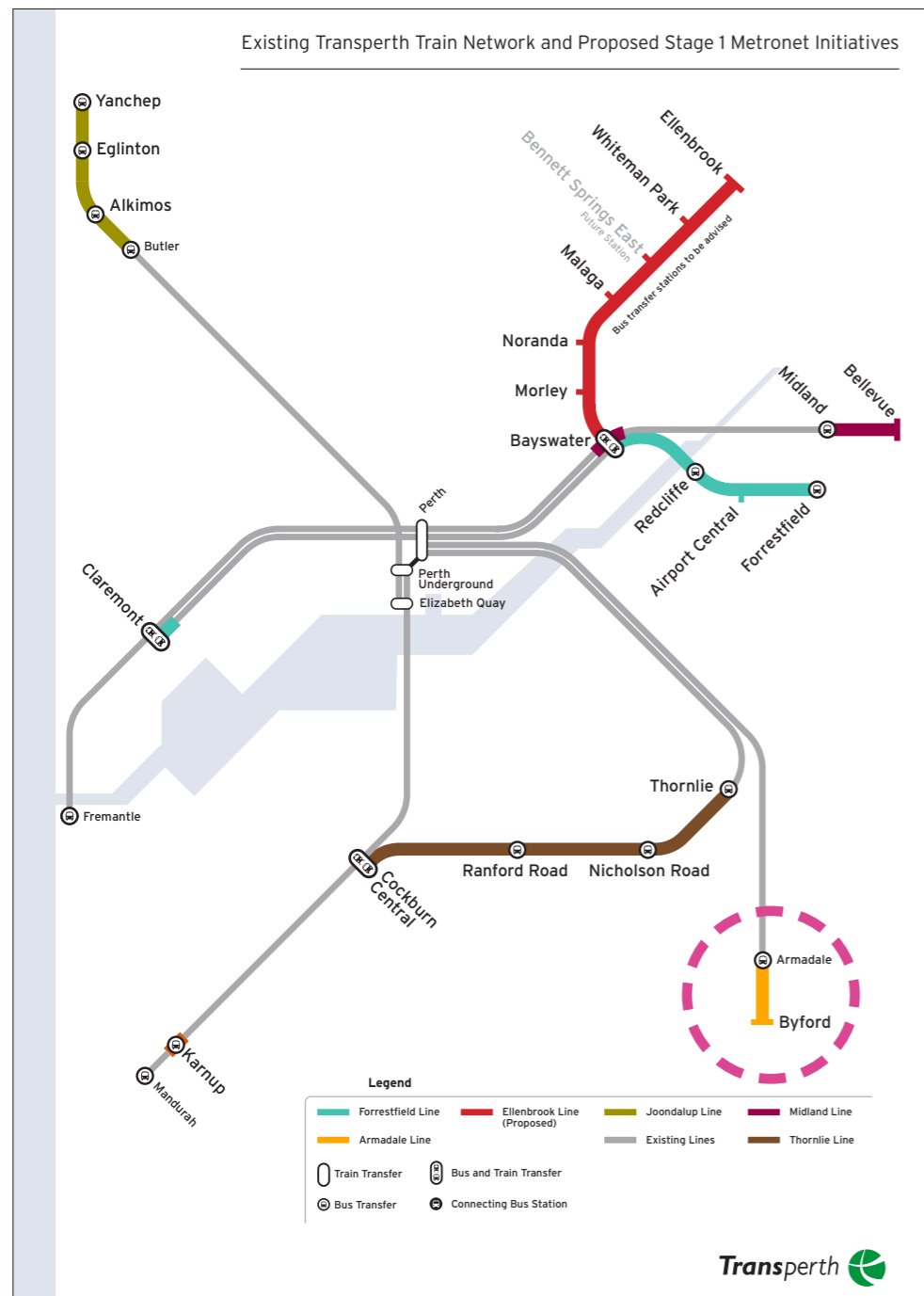


FIGURE 10. PTA FUTURE SYSTEMS PLAN METRONET

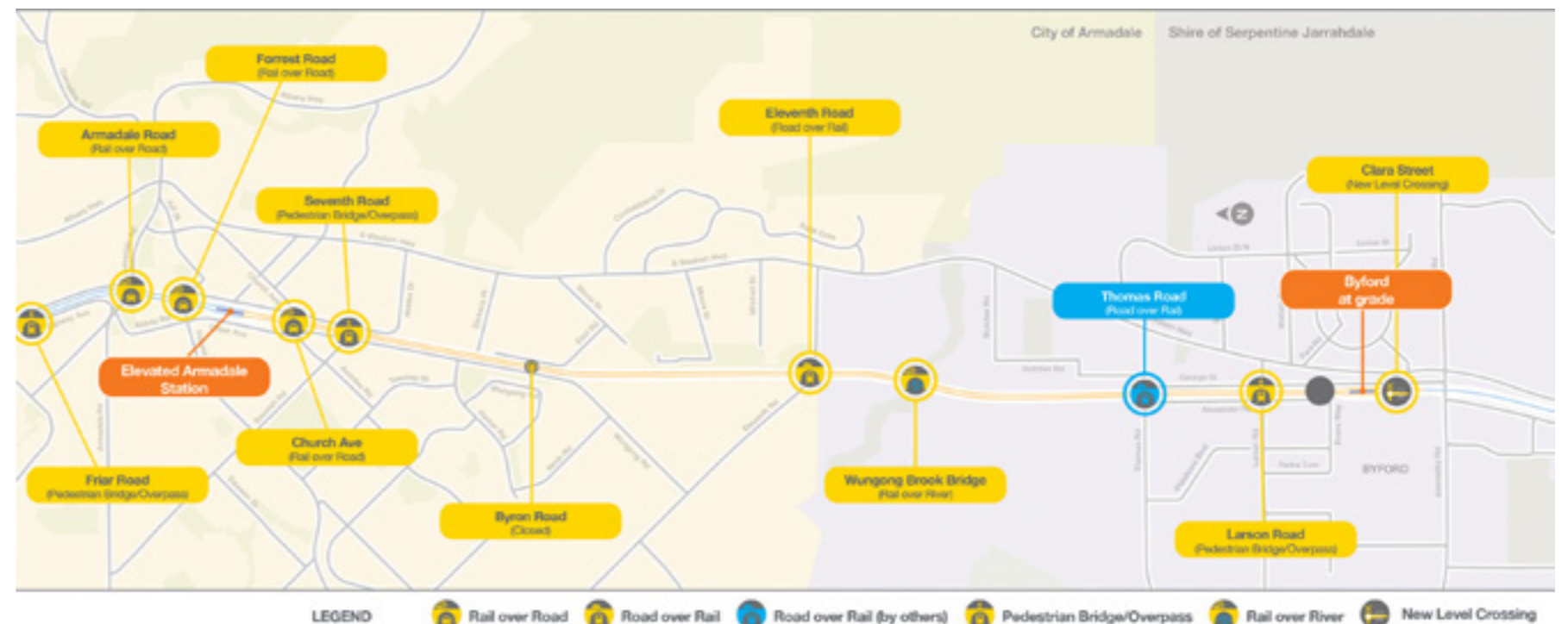


FIGURE 11. PLAN BYFORD RAIL EXTENSION - BASE CASE



Armadale Hills Visitor Centre



Minnowarra Park



Settler's Common Walking Trails



Bungendore Park



Wungong Gorge



The Pavilion Park



Brickwood Reserve



# RELATION TO COUNTRY AND LANDSCAPE SYSTEMS

## RELATION TO COUNTRY

Armadale and Byford Stations sit on an ancient songline that goes from north to south, skirts the hills to the east and the wetlands to the west. Armadale is an important access point to the eastern scarp, with Mt Nasura and Mt Richon being the first hills to welcome people to the range and mark the threshold between the high and low lands.

At Armadale, Neerigen Brook is a culturally significant water systems that the station precinct should refer to in the Noongar placemaking. Refer insert B in Figure 5 for an indicative representation of the significant landscape systems.

Around Byford is low open forest woodland with traditional hunting grounds, farming and other land management practices, and was framed and dominated by the power of the high hills looming to the east. There are many culturally significant water systems that should be celebrated and emphasised in the station precinct through Noongar placemaking. Refer insert C for an indicative representation of the significance of the landscape.

## LANDSCAPE SYSTEMS & FEATURES

The foothills and scarp are an area of transition with the Darling Scarp rising sharply from approx. 35m Australian Height Datum (AHD) to 185m AHD in approximately two kilometres. The geology also experiences a range of transitions from Granite, Laterite, Gravel and Gneiss with valley-fill deposits of clayey, sandy silts and clayey gravelly sands of the hills, past the Darling Fault and on to the clayey sands overlain with sands of the Swan Coastal Plain.

The two river systems originating in the Hills both pass through the foothills and scarp area with the Canning River flowing through Kelmscott and the Wungong River through Wungong east. Additionally, the major Wungong River tributary; Neerigen Brook passes through Armadale collecting much of the drainage from the urban area of the City. The Beenyup Brook Drain passes through Byford, there is also Oakland Drain to the north and Cardup Brook to the South.

The foothills watercourses tend to be quite deeply incised with narrow floodplains and as they progress into more heavily built up areas, they become substantially linked to constructed urban drainage systems, and in many cases are piped in sections. The Hills localities have several constructed water supply dams, principally the Canning Dam, Wungong Dam and Churchman Brook Dam.

One of the long-term impacts of colonisation has been a significant shift in landscape ecology. Clearing of native vegetation and development creates isolated natural areas surrounded by extensive areas of pasture, houses, roads, and exotic plants. This is a significant problem on the coastal plain and foothills and makes it increasingly difficult for fauna to move across the coastal plain in either an east-west or north south direction.

Wetlands and waterways have a key part to play in the biodiversity and water resources of the Swan Coastal Plain. They not only serve an important role in keeping watercourses and groundwater clean, but they support a wide variety of species. Forrestdale Lake is the largest, the most important and protected single wetland area. The water bodies are also significant to Noongar people as both a source of food and providing spiritual connection to country.

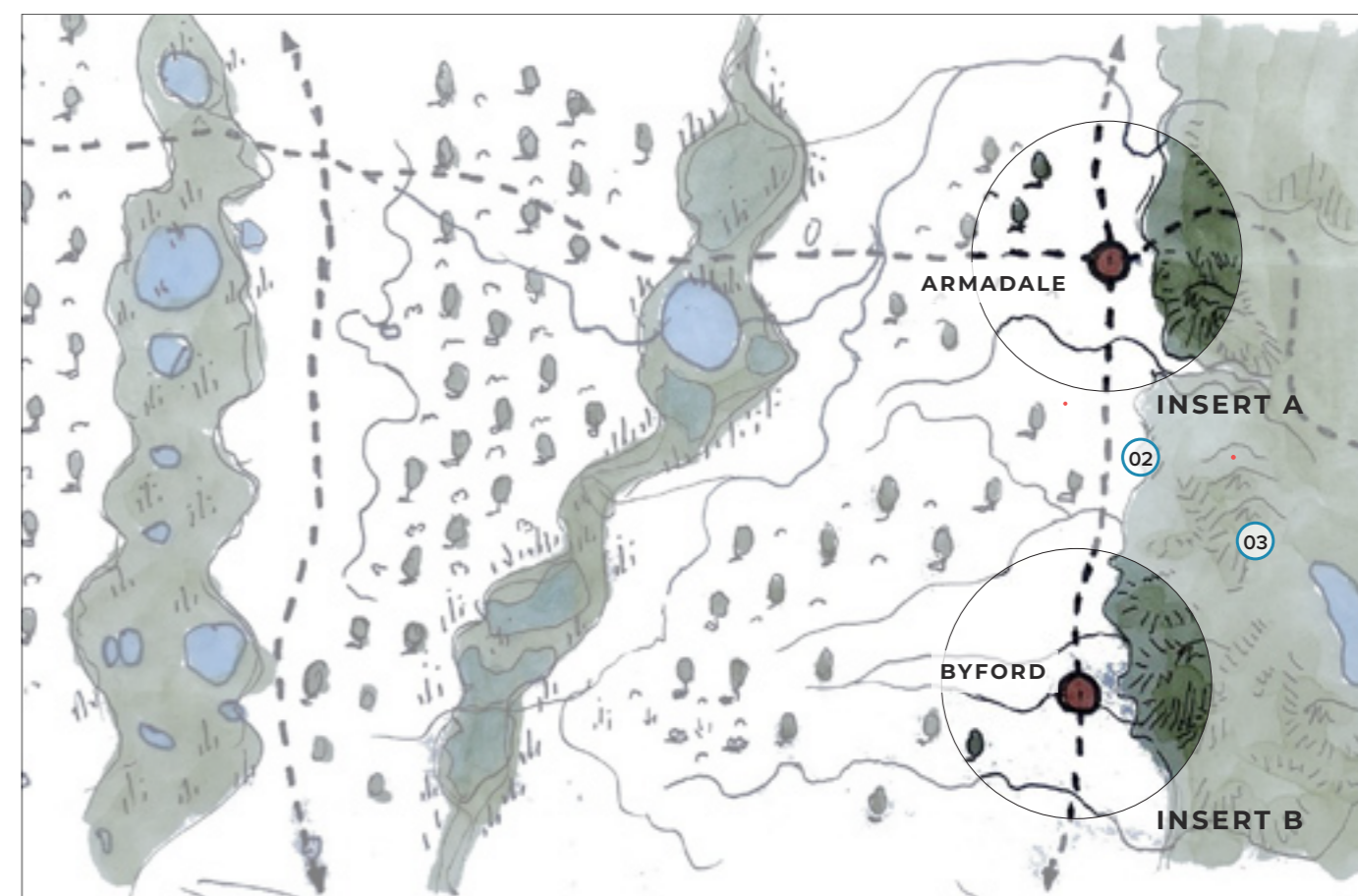
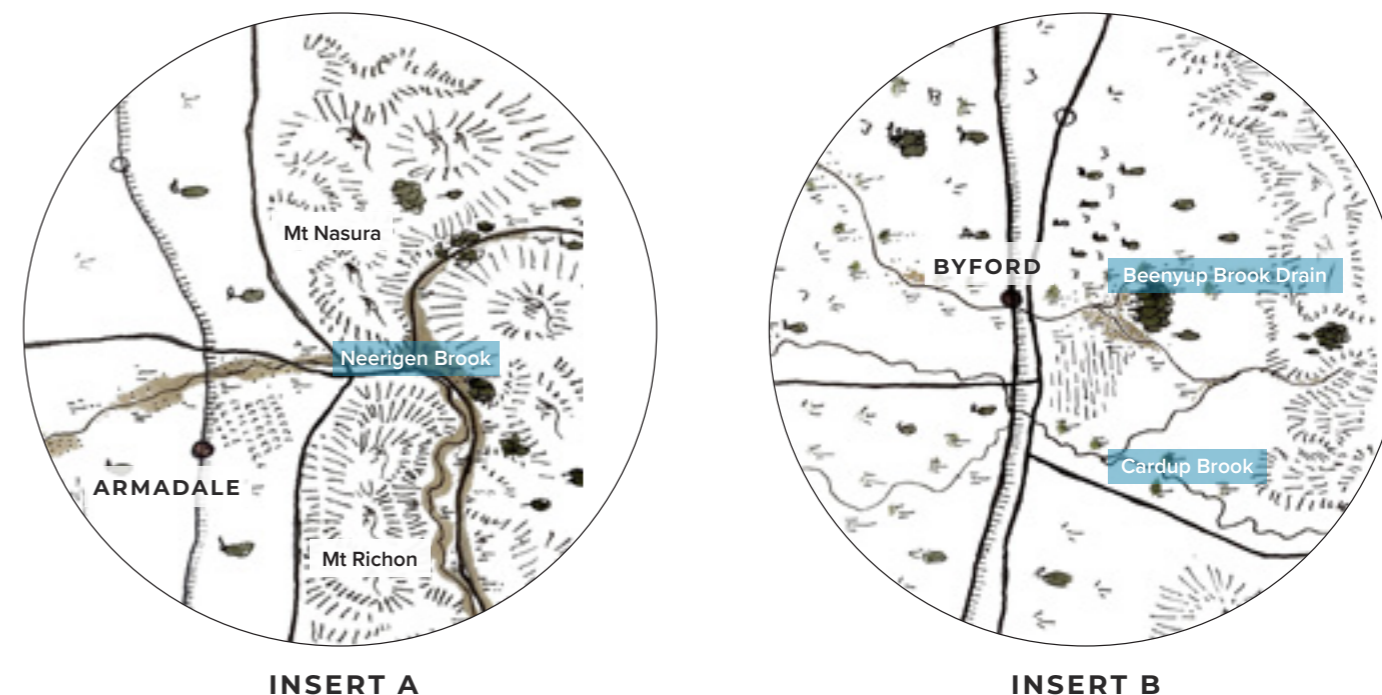


FIGURE 12. LOCATION PLAN – RELATION TO COUNTRY

Source: Byford Rail Extension – Concept Design, ‘Byford Station Precinct Preliminary Place Plan’, WSP/PLACE Laboratory (2021) (BRE-MNO-WSP-PL-RPT-0004)

SOIL TYPES	DOMINANT PLANT SPECIES	COUNTRY TYPES	
Dwellingup	<i>E. wandoo, E. marginata</i>	<b>01 Gandoo</b> - inland running parallel to Booyeembara, a "sandy division and abounds with that species of Eucalyptus called Mahogany [Jarrah]"	Surface Water Drainage Systems
Murray Valleys	<i>E. wandoo, E. marginata</i>	<b>02 Warget</b> - along the foot of the Darling Ranges described as an area rich in "clay, red loam, and alluvial plains" and blue and flooded gums.	Perth Regional Ecological Links
Forrestfield	<i>E. marginata, E. calopylla and B. grandis</i>	<b>03 Moorda</b> - the Darling Ranges.	Aboriginal Significant Places
Pinjarra	<i>E. melaleuca spp, E rudis</i>		
Bassendean	<i>Banksia</i>		
Spearwood	<i>E. gomphocephala, E. marginata</i>		
Vasse	<i>Paperbarks and sedges</i>		
Quindalup	<i>Callitris pressii</i>		



**GUILDFORD FORMATION**

Pale grey / brown sandy clay



**RIDGE HILL SANDSTONE & YOGANUP FORMATION**

Yellow / brown sandstone with shale rock & Pale grey quartz sand



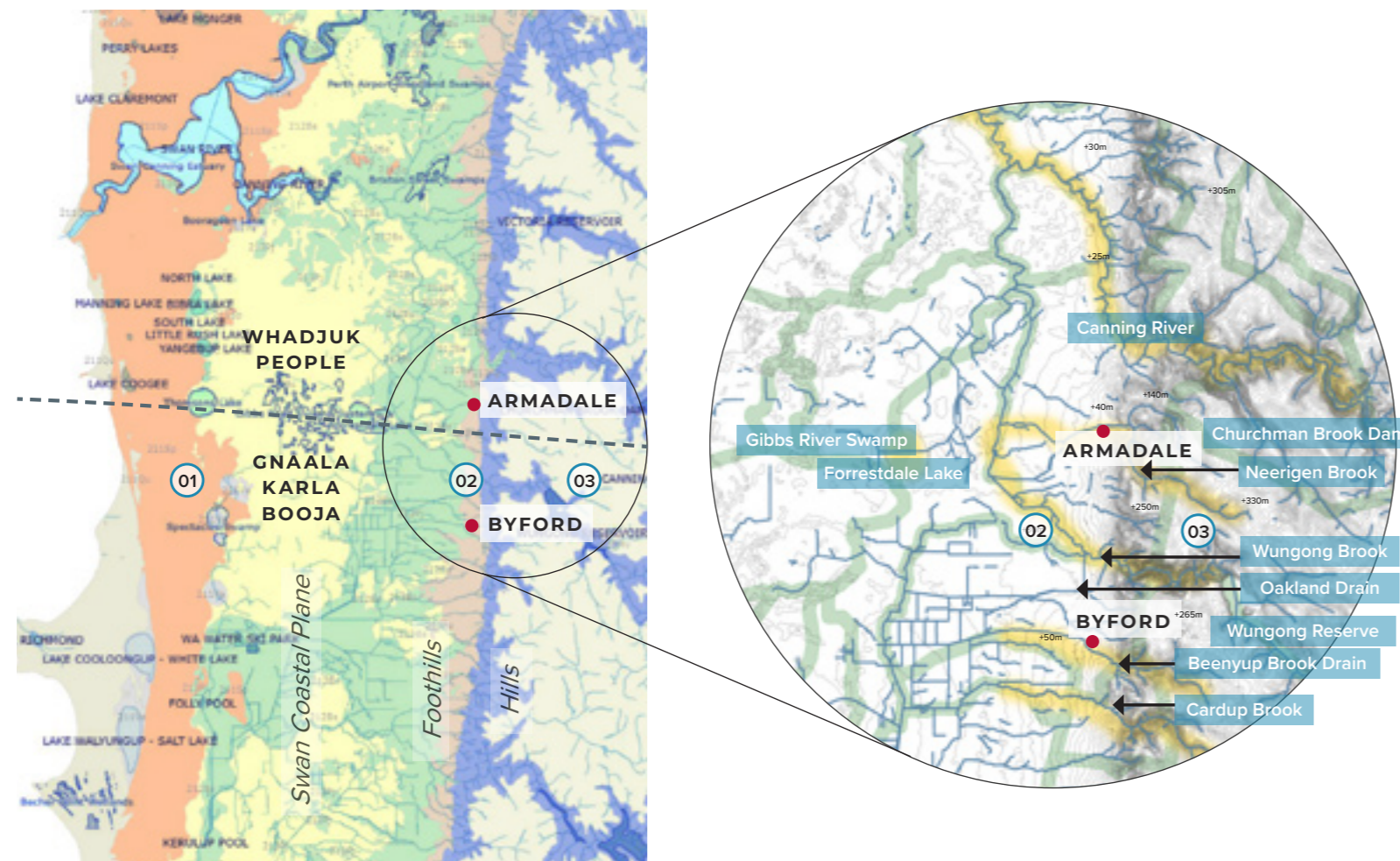
**RIDGE HILL SHELF**

Banksia shrublands



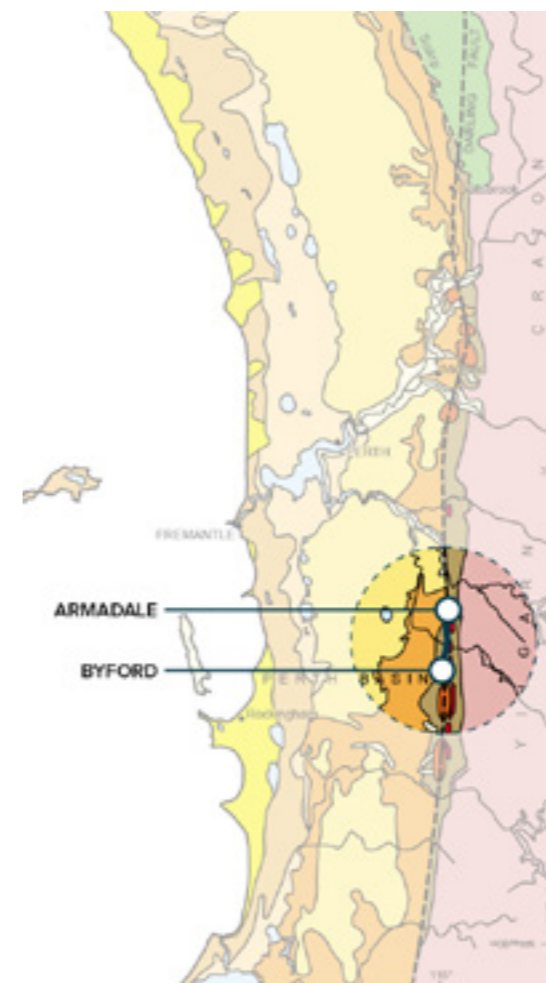
**PINJARRA PLAIN**

Jarrah / Banksia open woodlands



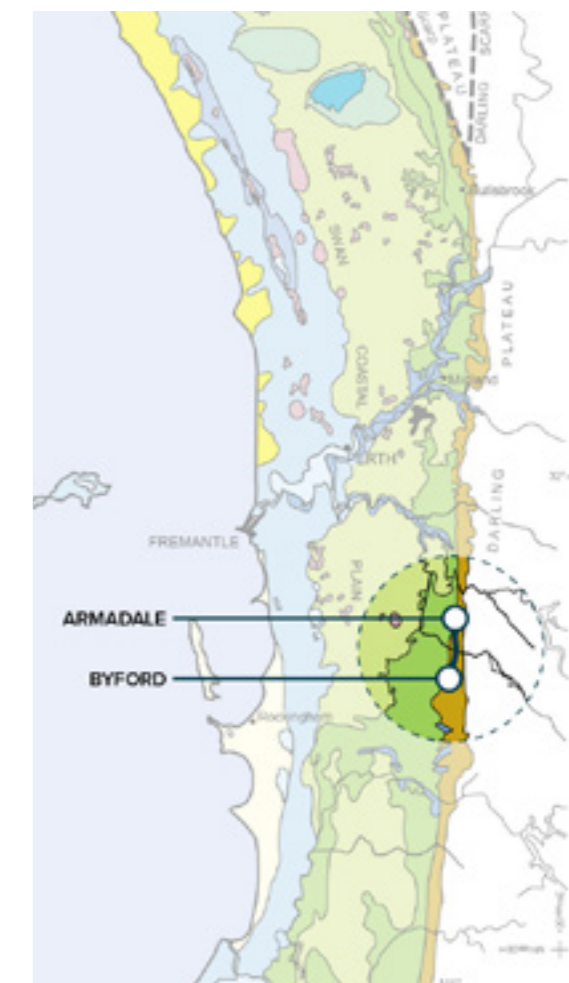
**FIGURE 13. SOIL LANDSCAPE AND SURFACE WATER SYSTEMS**

Source: Byford Rail Extension – Concept Design, 'Byford Station Precinct Preliminary Place Plan', WSP/PLACE Laboratory (2021) (BRE-MNO-WSP-PL-RPT-0004)



**SOILS ASSOCIATION**

Plan Reference: "Geology and Landforms of the Perth Region" by JR (Bob) Gozzard. Pg. 7



**FLORA FORMATIONS**

Plan Reference: "Geology and Landforms of the Perth Region" by JR (Bob) Gozzard. Pg. 15

















# ENVIRONMENT

The map on the right shows an overview of the existing tree canopy and drainage at the Byford station precinct's surrounding context at the district level.

The images underneath include feature spatial characteristics in the area.

## LEGEND

-  Rail
-  Proposed train station
-  Water
-  Ecological links
-  Tree canopy on private land
-  Tree canopy on public land
-  0-5% Tree coverage
-  5-10% Tree coverage
-  10-15% Tree coverage
-  15-20% Tree coverage
-  20-25% Tree coverage
-  25-30% Tree coverage
-  30-40% Tree coverage
-  > 40% Tree coverage



**FIGURE 14. BYFORD - ENVIRONMENTAL PLAN**



Source: Byford Rail Extension – Concept Design, 'Byford Station Precinct Preliminary Place Plan', WSP/PLACE Laboratory (2021) (BRE-MNO-WSP-PL-RPT-0004)

# BUILT FORM AND HEAT

The map on the right shows an overview of the car parks, roads and buildings and the heat island effect on a district level around the Byford station precinct's surrounding context at the district level.

The images underneath include feature spatial characteristics in the area.

## LEGEND

-  Rail
-  Proposed train station
-  Street
-  Major roads
-  Highway
-  Water
-  Built form
-  Parking
-  <0°C Urban heat island
-  0-1°C Urban heat island
-  1-3°C Urban heat island
-  3-5°C Urban heat island
-  5-7°C Urban heat island
-  >7°C Urban heat island

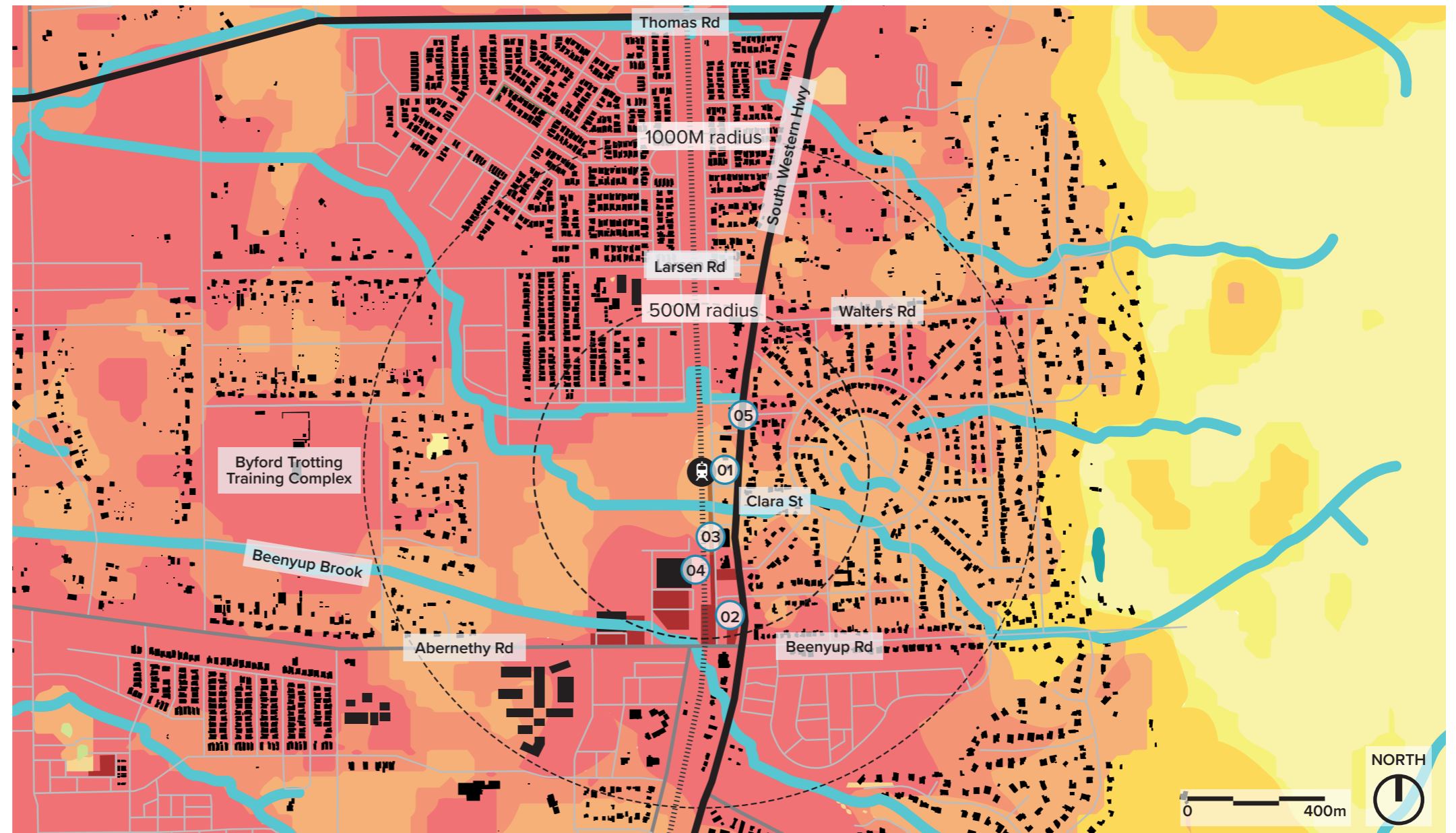
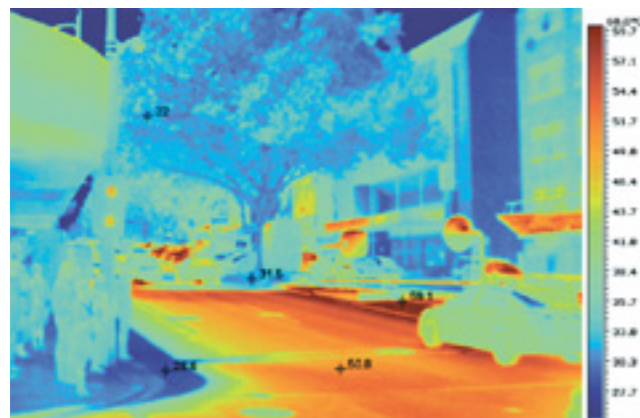


FIGURE 15. BYFORD – BUILT FORM AND URBAN HEAT PLAN



Urban heat thermal image



"Old town" parking

IGA parking

On street parking along George St facing the railway

Back of house facing the railway

South Western Hwy

# LAND USE



**FIGURE 16. BYFORD – LAND USE**



Residential development to the north of the new town centre



New medium density residential development to the south



Byford Secondary College



Open air shopping mall in the new town centre



Strip shops in the old town centre

## LAND USE

Land uses in Byford have changed considerably in the last 15 years, with rapid growth in residential, retail, commercial and civic uses as more households choose to live in Perth's south-eastern corridor.

- The eastern side of the rail line hosts a range of transitional main street retail, commercial and civic uses such as a post office, a pharmacy, banks, a vet clinic, RSL, cafés, smaller speciality stores and a medium-sized supermarket.
- The western side of the rail line hosts two major supermarkets with associated speciality retailers, fast food, and a petrol station. Two schools (Byford Secondary College and Salvado Catholic College) are also located on this side of the railway tracks.
- Residential development surrounds the future station area, with large vacant landholdings immediately to the east of the future station. Whilst development historically followed South West Highway, the majority of new residential land releases occur on the western side of the railway tracks.

Byford Station will offer a permanent, high quality public transport connection to Armadale, other Inner Armadale activity centres, Perth CBD and beyond. This change will inevitably encourage new growth and development around Byford Station.

The new station introduces a connection at Clara Street West that will join activities on both sides.

Currently, Byford centre lacks strategic employment offerings beyond those directly related to population driven retail, of which it is largely dependent. The centre is categorised as a District Centre in the State Planning Policy 4.2, which encourages a greater level of commercial and civic development focussed on:

- District level office development
- Local professional services
- A wider range of retail offerings such as a discount department store.


















There are immediate opportunities for new community and health related uses that the Shire is pursuing to the south of Clara Street West, which will further activate the station precinct.

# DISTRICT LEVEL DESTINATIONS

The map on the right shows an overview of the existing destinations and activities on a district level around the Byford station precinct's surrounding context at the district level.

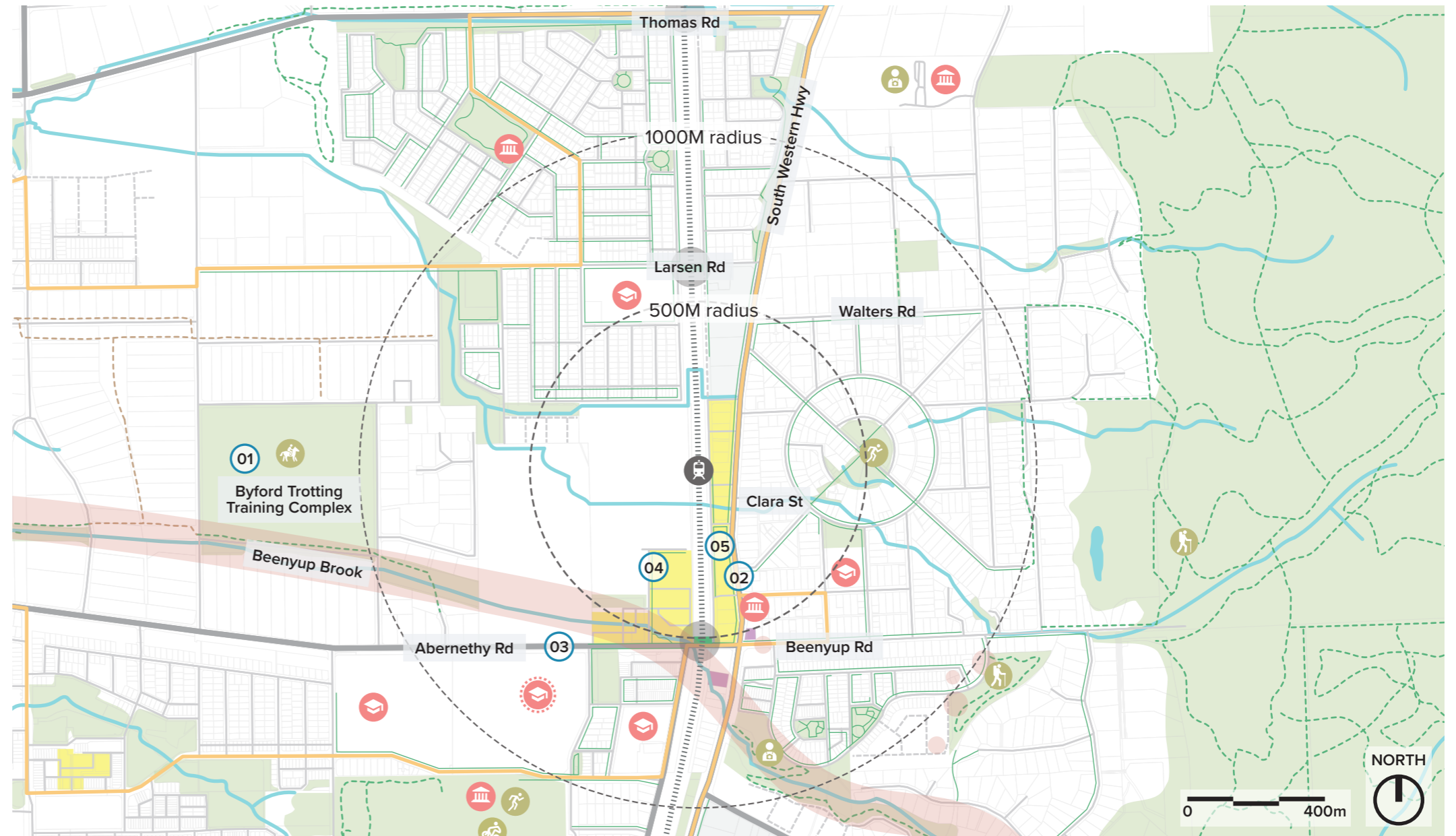
The images underneath include feature spatial characteristics in the area.

## LEGEND

-  Rail
-  Proposed train station
-  Principal shared path
-  Trails
-  Bridle trails
-  Pedestrian crossover
-  Vehicle crossover
-  Street
-  Major roads
-  Highway
-  Bus network
-  Shopping area
-  Offices
-  Industrial
-  Green space
-  Water
-  Area of Aboriginal significance\*

\* For further details, see the Noongar Cultural Context Document 'Beenyup'

-  Civic & Education
-  Recreation



**FIGURE 17. BYFORD – ACTIVITIES, MOVEMENT AND DESTINATIONS**



Source: Byford Rail Extension – Concept Design, 'Byford Station Precinct Preliminary Place Plan', WSP/PLACE Laboratory (2021) (BRE-MNO-WSP-PL-RPT-0004)

# LOCAL ACTIVITIES

The plan on the right shows an overview of the local activities across the Byford Town Centre as surveyed in 2020.

Civic, commercial and hospitality activities are mostly clustered on the eastern side of the railway line, in a zone around South Western Highway. A new cluster is developing on the western side, where the new Town Centre is coming to fruition. Car parking between the buildings support the town centre activities.

Stronger connections across the rail line, through the introduction of a new station environment, will help to encourage the connectivity between the eastern and western part of the town centre, supporting pedestrian flows and street activation.

On the next page is a photo essay of the local activities in the area.

## LEGEND

-  Rail
-  Proposed train station
-  Principal shared path
-  Foot path
-  Pedestrian rail crossing
-  Street
-  Major roads
-  Highway
-  Green space
-  Water
-  Area of Aboriginal significance
- Civic 
- Commercial 
- Hospitality 
- Recreation 
- Parking 

Source: Byford Rail Extension – Concept Design, ‘Byford Station Precinct Preliminary Place Plan’, WSP/PLACE Laboratory (2021) (BRE-MNO-WSP-PL-RPT-0004)

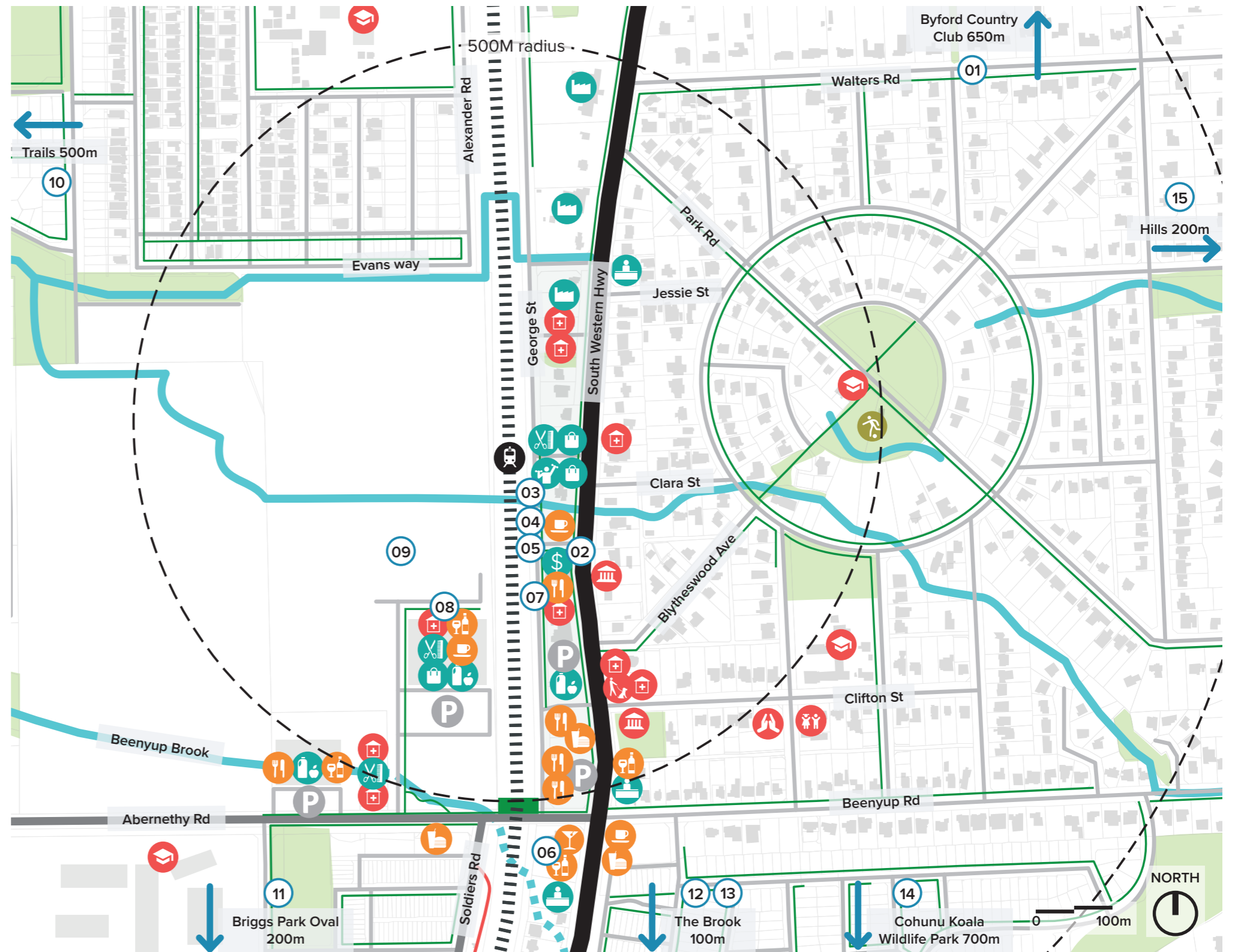


FIGURE 18. BYFORD – LOCAL ACTIVITIES



01 Byford and Districts Country Club, a family-friendly, community club nestled away in the natural bushland.



02 Byford has approximately 14 public artworks to see around the town centre.



03 Macora Brook and the Dome Cafe together create a place for locals to meet.



04 The Dome Cafe with its alfresco cafe is a popular place to meet.



05 Byford is a popular stop for weekend cyclists to stop for coffee and breakfast.



06 There are two taverns in Byford which add to the night-time economy.



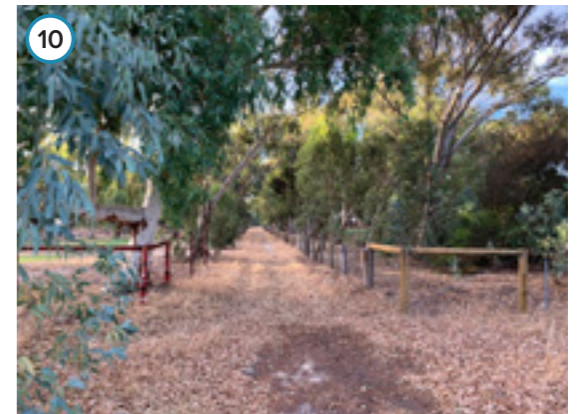
07 The old town centre provides a place to run errands and do the food shop.



08 The new town centre provides another shopping experience with its cafe and playground.



09 Development land in the future town centre.



010 Recreational bridle trails for horse riders, walkers and mountain bike riders.



011 BMX Club was founded in the early 1980's at Briggs Park Oval in Byford and is a popular youth activity.



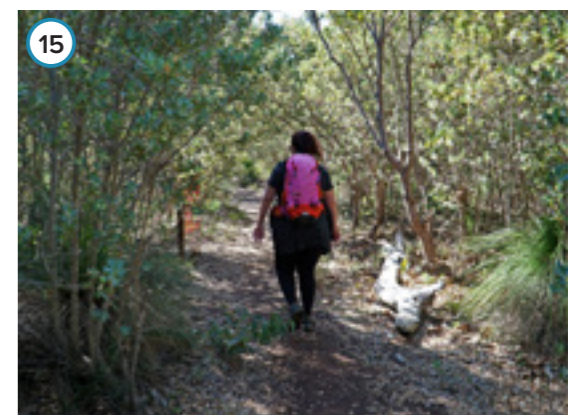
012 The Brook at Byford references the old brickworks history and is a popular BBQ and picnic location.



013 The Brook at Byford has a well loved nature playground, adventure park and is walking distance of the Byford Town Centre.



014 Cohunu Koala Wildlife Park is a popular tourist attraction where you can hand feed the friendly kangaroos, wallabies and other wildlife.



015 The pristine bushland and trails are popular with hikers and mountain biking riders.

# PEDESTRIAN ACCESS ROUTES

The new train station provides an opportunity to realise a much needed second pedestrian link across the rail, connecting the east and west side of the Byford Town Centre. A new rail crossings at Clara Street West creates a comfortable at-grade crossing, without the need to go up or down, while the crossing will close only sporadically for the Bunbury train line.

A new Welcome Place marks the new connection between the eastern and western town centre. The plaza will have ample travellers moving through, and attractive for both youth and parents with young children. All contributing to the activation and safety of the plaza and town centre.

Additional footpaths along Clara Street West and San Simeon Blvd will further improve the pedestrian permeability around the Town Centre and the connectivity to the high school south of Abernethy Road.

## LEGEND

- Footpath (existing & planned)
- - - New footpath (station related)
- Parkland (future)
- Pedestrian plaza
- Shopping mall
- Pedestrian priority crossing
- Pedestrian rail crossing
- Challenging road crossing
- Rail (at grade & proposed elevated)
- Arterial road
- Street (existing & planned)
- New street (station related)

## Destinations

- Train Station
- Shopping
- School (primary & secondary)
- Sport & Recreation
- Tourism
- Town Centre
- Parkland & Bush
- Schoolground



FIGURE 19. BYFORD – PEDESTRIAN NETWORK

# CYCLE ACCESS ROUTES



The new Principal Shared Path (PSP) along the west side of the rail line will create an important cycling linkage in the Byford cycle network. The PSP will connect to Armadale in the north, and to Abernethy Road in the south. The Shire of Serpentine Jarrahdale will realise a PSP from Abernethy Road to Mundijong in the south.

The PSP will be key to create safe cycle connections to important local destinations such as the Town Centre, and the Byford Secondary College south of Abernethy Road.

A grade-separated crossing at Larsen Road and an at-grade crossing at Clara Street West will improve the east-west connectivity across the rail line.

It is important to note that detailed design of the PSP is currently underway, so details cannot be included on its proposed alignment.

## LEGEND

- - - - - PSP (planned & proposed)
- - - - - Secondary cycle route (planned)
- Local cycle route
- Secure bike parking (proposed)
- Rail crossing
- Challenging road crossing
- - - - - Rail (at grade & proposed elevated)
- Arterial road
- - - - - Street (existing & planned)
- - - - - New street (station related)

## Destinations

- Train Station
- Shopping
- School (primary & secondary)
- Sport & Recreation
- Tourism
- Town Centre
- Parkland & Bush
- Schoolground

FIGURE 20. BYFORD – CYCLE NETWORK





# BUS ACCESS ROUTES






While the integration of buses into the station precinct is vital for multi-modal transport options, it is critical to separate bus movements from pedestrian flows and, therefore, cross-precinct bus movement is not desired.

As Clara Street West is planned as a low-speed, pedestrian & cycle friendly internal town centre connection, this street is not to be used as a bus access route.









In addition, it is anticipated there will be implementation of new Transperth bus routes to service the new growth areas to the west of Byford Station, as outlined within Transperth's Service Development Plan.

*It is important to note that confirmation of future bus routes is still subject to future Transperth/PTA planning.*

## LEGEND

- Line 251, 252, 253
- Line 254
- - - Bus route to station (proposed)
-  Bus Station
-  Rail (at grade & proposed elevated)
-  Arterial road
-  Street (existing & planned)
-  New street (station related)

## Destinations

-  Train Station
-  Shopping
-  School (primary & secondary)
-  Sport & Recreation
-  Tourism
-  Town Centre
-  Parkland & Bush
-  Schoolground



**FIGURE 21. BYFORD – BUS NETWORK**

# VEHICLE ACCESS ROUTES



The key road access routes for private vehicles to the station parking are outlined on the plan to the right. These provide access to the Park'n'Ride and Kiss'n'Ride. The majority of the suburban development in Byford is happening on the west side of the rail. Most patrons are expected to come from these areas. Finishing San Simeon Blvd with a connection to Abernethy Rd, will create station access as well as support further development of the western Town Centre.

Clara Street West will create a new internal cross-rail connection between the east and west side of the town centre. This new street will deliberately be designed as a slow-speed environment, to emphasise it's town centre character and prevent it becoming a thoroughfare or vehicular short cut.

While Larsen Rd will be discontinued, a new grate-separated crossing at Thomas Street will improve the east-west accessibility in the arterial network.

## LEGEND

- Arterial road
- Local vehicular route to station
- ▼ Station parking access
- P Park & Ride parking
- K+R Kiss'n'Ride parking
- Grate separated crossing (proposed)
- At-grade crossing
- ✕ Road crossing closure (proposed)
- Rail (at grade & proposed elevated)
- Arterial road
- Street (existing & planned)
- New street (station related)

## Destinations

- T Train Station
- S Shopping
- S School (primary & secondary)
- S Sport & Recreation
- T Tourism
- Town Centre
- Parkland & Bush
- Schoolground

FIGURE 22. BYFORD – PRIVATE VEHICLE NETWORK



# ENGAGING WITH AUDIENCES

Station precincts have a dual role as a service point for public transport infrastructure and as a high-quality public realm that is welcoming and inclusive. Universal access, safe and efficient circulation and movement of pedestrians, cyclists, cars and buses is a standard design requirement for the success of all the station precinct as it needs to cater for a diverse range of people of different needs and abilities. Understanding the users of the station precinct is essential to delivering a well patronised and vibrant place. As identified by WSP and PLACE Laboratory in 'Byford Station Precinct Preliminary Place Plan' (BRE-MNO-WSP-PL-RPT-0004), the six audiences / user types of Byford Station, and its wider precinct, can be segmented as:

- Peak Hour Commuters
- Occasional Commuters
- Local Residents & Workers
- Local Traders & Retailers
- Tourists & Visitors
- Youth

The reasons each group is in the precinct, their mindset, essentials the station visit should provide them and the specific amenities they seek is outlined opposite. The Place Plan and station design responds to these needs, offering a place of: smooth and comfortable transfer; pleasant and meaningful time spending; and embedded in the community.

As identified by WSP and PLACE Laboratory in 'Byford Station Precinct Preliminary Place Plan' (BRE-MNO-WSP-PL-RPT-0004), collaboration with the local government and other stakeholders to develop a FPP has been limited. Therefore, engagement with local governments, stakeholders and the wider community is advised to occur in the following stages of this project to address the needs and requirements of these various audiences. This will enable the precinct delivery to appropriately provide amenity and comfort that addresses their travel and dwell needs at key times during the day/ evening and week.

## NOONGAR CULTURAL CONTEXT

METRONET is committed to Gnarla Biddi, it's Aboriginal Engagement Strategy. An important aspect of this is engagement with the METRONET Noongar Reference Group (MNRG) and the development of a NCCD for each project, on advice from and acceptance by the MNRG. For the BRE, a NCCD has been developed by Material Thinking with Uncle Neville Collard, in close collaboration with senior Noongar elder Dr Richard Walley and the MNRG. The 'Beenyup' NCCD has shaped previous reporting, and consequently this Place Plan. For a full understanding of the narratives, the Beenyup NCCD and its appendices should be consulted by all designers on this project, whether they be engineers, place designers or artists.



### PEAK HOUR COMMUTERS

#### Why are they at the station precinct?

They are travelling to the CBD, work, school, university and TAFE.

#### What is their mindset?

Peak hour commuters frequent the station precinct in the morning and afternoons. It is part of their everyday journey and should be as seamless as possible.

#### The station precinct needs to provide?

Morning: The station precinct needs to be clear, direct and generous.

Afternoon: It needs to be a welcoming place and ensure a quick journey home.

#### Specific amenity

- Morning coffee.
- Afternoon seating for waiting.
- Retail opportunities.



### OCCASIONAL COMMUTERS

#### Why are they at the station precinct?

Typically they are travelling to health facilities, events, recreation, retail and/or visiting friends and family.

#### What is their mindset?

They use the station for incidental requirements like shopping, appointments and errands. Typically, they have more time, so the station experience can be more leisurely.

#### The station precinct needs to provide?

A sense of place, identity and orientation.

#### Specific amenity

- Place to stop, rest and socialise.
- Places to eat, drink, shop and play.
- Cycle share facilities.
- Lockers for shopping.

## TABLE 5. AUDIENCE TYPOLOGIES

Source: Byford Rail Extension – Concept Design, 'Byford Station Precinct Preliminary Place Plan', WSP/PLACE Laboratory (2021) (BRE-MNO-WSP-PL-RPT-0004)



## LOCAL RESIDENTS & WORKERS

### Why are they at the station precinct?

Typically local residents and workers travelling to and from home, work and nearby local destinations.

### What is their mindset?

Locals experience the station precinct as part of the surrounding context.

### The station precinct needs to provide?

Public open space to encourage different activities for a diverse range of people.

### Specific amenity

- Place to stop, rest and socialise.
- Places to eat, drink, shop and play.
- Flexible spaces (i.e. markets and performances).



## LOCAL TRADERS & RETAILERS

### Why are they at the station precinct?

Local traders and retailers travelling to and from work and taking lunch breaks.

### What is their mindset?

The local traders and retailers contribute vibrancy and activation to the site and could potentially extend their commercial activities into the public realm.

### The station precinct needs to provide?

To bring together commuters, traders and residents to create a vibrancy. There need to be short and long-term opportunities that support local traders.

### Specific amenity

- Retail spaces with good foot traffic.
- High-quality public spaces.
- Power and services for vendors.



## TOURISTS & VISITORS

### Why are they at the station precinct?

They are travelling via the station precinct to visit the area.

### What is their mindset?

Tourists traveling by public transport are alert to the station at which to alight. When they arrive at the station precinct they look for the way to get to their next mode of transport or their ultimate destination.

### The station precinct needs to provide?

Contribute to the tourist precinct by showcasing what is unique to the area and by providing wayfinding directional signage.

### Specific amenity

- Places to stop and rest (i.e. eat, shop and play).
- Cycle share facilities.



## YOUTH

### Why are they at the station precinct?

Typically 13 -18 or old enough to be out without parental supervision. Looking for places to hang out and socialise. Interested in active play experiences.

### What is their mindset?

Experience the station precinct before and after school and weekends, as a place to hang out and meet friends.

### The station precinct needs to provide?

Safe public open spaces to meet friends. Wi-Fi for research, study and youth-orientated recreational activities.

### Specific amenity

- Place to stop, rest, play sport and socialise.
- Places to eat, drink, shop and play.



# OPPORTUNITIES & CONSTRAINTS

The plans to the right summarise the opportunities and constraints presented by the site context. They are shown at the precinct scale and the wider context.

The analysis considers the challenges and potential of the wider area to achieve integration of the station precinct with its surrounds. However, the plan boundaries form a constraint for the execution of the proposals in this PPP (e.g. the BRE project will deliver on what it can within its project boundary, but future opportunities, connections and improvements would fall outside of the scope of this project).

The Opportunities & Constraints furthermore focuses on the character and place related aspects. The technical requirements and constraints that need to be met in the design are not included.

## GENERAL OBSERVATIONS

The urban structure of Byford is characterised by two distinct halves, separated by the railway corridor. The eastern side is the old town centre with a rural feel, including older buildings in a dispersed setting with eminent mature trees. The western side is a newly developing town centre with larger buildings surrounded by a rich supply of car parking.

Currently, the rail corridor is a primary barrier to any movement between the two town centre parts. A new train station at the northern side of the town centre will improve the connection and urban structure greatly. This would also help to facilitate growth of the town centre to the west, while supporting the existing businesses to the east.

Given the yet undeveloped land available on the western side, this provides great opportunity to define spaces that utilise and enhance the local sense of place. All efforts should be made to ensure the areas around the station are designed as publicly activated areas that are an integrate part of the town centre, and not seen as thoroughfare places, or even places to be excluded from the public realm.

## OPPORTUNITIES

The main precinct opportunities for the Byford Station Precinct are:

- Linking the 'old' and the 'new' town centre, both physically and in character
- Contributing infrastructure to the development of the western Town Centre
- Improving active transport connectivity along the west side of the rail line
- Creating recreational connections to the hills and the trotting complex
- Enhancing the 'bush line experience' of the Byford rail line
- Celebrating the brooks and the proximity to the hills and bushland

- Cooling the urban environment
- Include Noongar language through place making outcomes

## CONSTRAINTS

The main constraints regarding the precinct relate to:

- The at grade rail continuation of the Australind line in combination with two at-grade crossings (Clara Street West and Abernethy Road)
- High water-table of the land on the west, requiring fill for development and potentially dis-connecting it to Country
- Required land for station infrastructure is only available on the west side of the rail line
- Retaining all existing trees along the east side of the existing rail line. They are essential to the existing bush-character and urban cooling

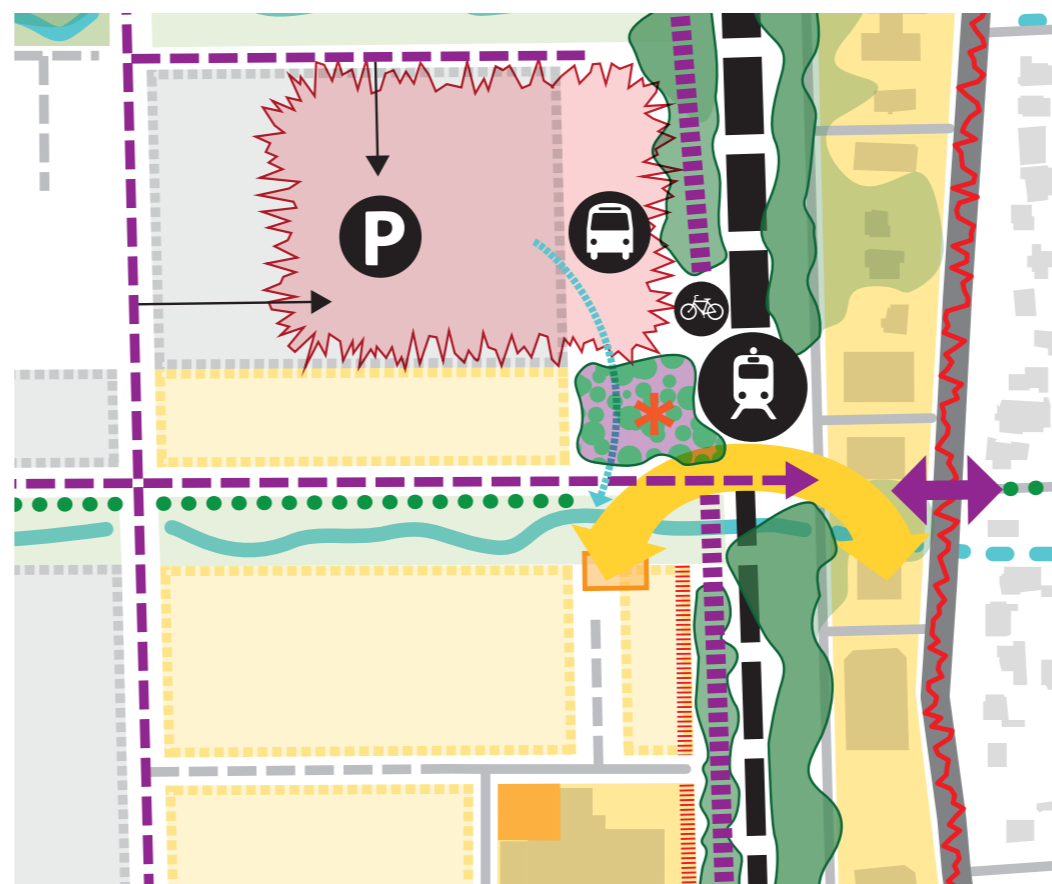


FIGURE 23. OPPORTUNITIES & CONSTRAINTS PLAN

## LEGEND

- Rail line (Metro & Bunbury)
- 🚂 Train Station
- 🚌 Bus Station
- 🚲 Bike parking
- P Park & Ride
- ↔ Connecting East & West Town Centre
- 🌿 Bush-line character enhancement
- 🌳 Bush-line Welcome Plaza
- 🌟 Amenities for youth & children with parents
- 🌊 Connection to creek & indigenous values
- ⋯ Recreational connection
- ⋯ Proposed PSP
- ↔ New streets for station access
- ↔ Pedestrian & cycle crossing over SW Hwy
- ↔ Connectivity for school youth to station
- || At-grade crossing closure
- Station parking access
- 🔥 Potentially significant urban heat stress
- 🚫 Barrier for pedestrians and cyclists
- ⋯ Blind edge, limited passive surveillance
- 🏡 Town Centre (existing & planned)
- 🏠 Town plaza (existing & planned)
- 🎓 School - primary & secondary
- 🏠 Medium density residential (planned)
- 🌳 Parkland (existing & planned)
- 🏃 Recreational destinations - Trotting Complex, Blytheswood Park, Hills, Brickworks
- 🌳 Significant canopy coverage (indicative)
- 👤 Aboriginal significance
- 🌊 Creek (open & piped)
- Street (existing & planned)

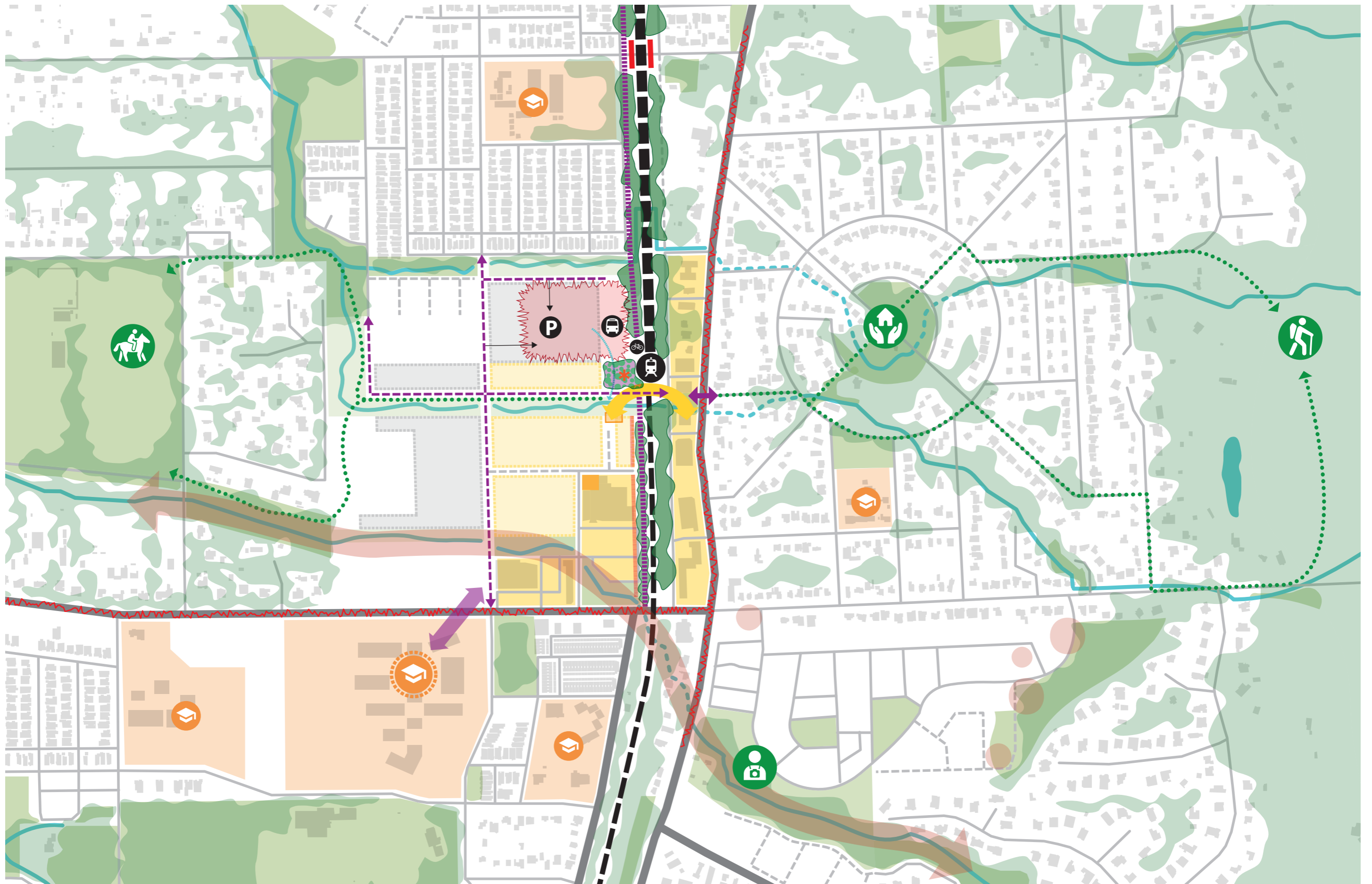


FIGURE 24. OPPORTUNITIES & CONSTRAINTS PLAN IN WIDER CONTEXT



# 04

## NARRATIVE ANALYSIS

NOONGAR CULTURAL CONTEXT	48
SHARED HISTORY AND CULTURAL SIGNIFICANCE	50
COMMUNITY PERCEPTIONS	52



# NOONGAR CULTURAL CONTEXT

METRONET is committed to Gnarla Bididi, it's Aboriginal Engagement Strategy. An important aspect of this is the engagement with the METRONET Noongar Reference Group (MNRG) and the development of a Noongar Cultural Context Document (NCCD) for each project, on advice from and acceptance by the MNRG.

For the Byford Rail Extension a specific NCCD is being developed by Material Thinking with Uncle Neville Collard, in close collaboration with senior Noongar elder Dr Richard Walley and the MNRG. The Noongar Cultural Context Document 'Beenyup' is provided as input for the sense of place vision developed in this Final Place Plan.

The following summary and interpretation of the Noongar narratives in Beenyup NCCD has not yet been communicated with or checked by the METRONET Noongar Reference Group. It is essential that the appropriate Aboriginal Stakeholders are engaged and permission asked as to how this traditional, historical and contemporary information is summarised and integrated in this Place Plan before the plan is finalised and any of the narratives are taken forward.



METRONET Gyinning Noongar Cultural Context Document November 2019

(1\*) The summary of Noongar narratives in this Place Plan is an interpretation of the Beenyup Noongar Cultural Context Document and has NOT yet been communicated with or checked by the METRONET Noongar Reference Group (MNRG). It is essential that the appropriate Aboriginal Stakeholders are engaged and permission is asked to how this traditional, historical and contemporary information is integrated before the Final Place Plan is finalised and any of the narratives are taken forward.

The Beenyup NCCD includes a wealth of information. Summarising this will inevitably reduce the richness and depth of the stories, themes, concepts and protocols described. For a full understanding of the narratives, the Beenyup NCCD including all the appendices should be consulted. All designers on the project, whether engineers, place designers or artists, should be aware of the content and it's significance.

## BEENYUP

The Beenyup NCCD includes powerful story lines to inspire a sense of place for the Byford Rail Extension and include in their designs. For the Final Place Plan the wealth is summarised in five story lines:

- Noongar Boodjar
- Waterways/Waugal
- Bididi 'pathways'
- Storytelling
- Hard Labour - Noongar Rail History

There is also reference to Woolberr, Elder and recognised healer, who was killed in 1907 on the railway. He travelled through across significant parts of the region around Perth. Woolberr was associated with the spirit of water through Waugal and had knowledge of the origin of fire; both fire and water playing and important role in powering the first trains.

The Beenyup NCCD indicates the Western Australian Government Railways have consistently and repeatedly violated the haunts of the Waugal. Paying respect to Woolberr could initiate a reconciliation and healing process.

The use of Aboriginal names for the stations would also be a way of showing respect to Noongar peoples. Advice of the MNRG would need to be sought on appropriate Noongar names.



## BEENYUP NOONGAR BOODJAR

Byford (Beenyup) is located in Beeliar country, and is the territory of legendary Noongar elder Midgegooroo. Beenyup is known as 'Place for digging holes for the warrain (native potatoes). The Byford Rail Extension covers two general geographical areas within Beenyup: Gandoo and Warget.

**Gandoo**, inland running parallel to Booyeembara, a "sandy division and abounds with that species of Eucalyptus called Mahogany [Jarrah]",

**Warget**, along the foot of the Darling Ranges described as an area rich in "clay, red loam, and alluvial plains" and blue and flooded gums.

The Armadale Byford line is (generally) located between the Canning catchment (the Southern tributary) to the north and the headwaters of the Serpentine to the south-west. The Byford Rail Extension runs north-south along the boundary of the Ridge Hill Shelf and the Pinjarra Plain intersecting several westerly flowing streams, including (but not limited to) Wungong, Cardup and, further south, Manjedal Brooks.

The water sources were linked by north-south and east-west biddi travelled and visited seasonally. The swamp/wetland on nearby Forrest Road also has significance to Aboriginal people as places for camping and hunting and as part of a chain of water bodies plain which Aboriginal people travelled along.



## WATERWAYS/WAUGAL

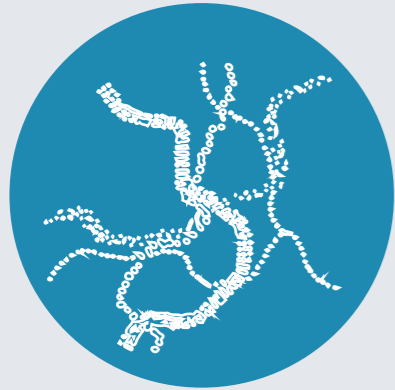
The Pinjarra Plain system is characterised by a series of interconnected water bodies significant to Noongar people as both a source of food and providing spiritual connection to country. In addition to their connection to the Waugal creation journey, the waterways hold general spiritual significance as places of life and abundance.

The layered significance of the waterways are reflected in the observations by O'Connor,

*"Regional wetlands', for example, are 'spiritual repositories, not in the sense of the ubiquitous Waugal myth ... but in a more general sense which draws on the fundamentals of Aboriginal philosophic-religious belief. In this belief system all living creatures, including humans, share a common spiritual essence and therefore, by extension, every living being represents a part of the wider spiritual universe. The region's wetlands, as breeding grounds for numerous living creatures, are therefore repositories of this spiritual essence realised generationally by individuals."*

When European settlers arrived their colonial tracks, road networks and eventually rail networks developed along the established routes created by Noongar people between the waters.

Source: Byford Rail Extension – Concept Design, 'Byford Station Precinct Preliminary Place Plan', WSP/PLACE Laboratory (2021) (BRE-MNO-WSP-PL-RPT-0004)



### CORROBORREE GROUNDS & BIDDI 'PATHWAYS'

'Places' are not isolated territories, but places on biddi, like knots in a string figure. Noongar define places relationally as the crossings of biddi, where there is shelter, water and warmth. Corroborree grounds represent important meeting and ceremony places within the biddi network.

Station precincts should not be seen as individual places, but as parts of larger, intricate networks of connection, ecology, knowledge, meaning, health and storytelling.

The Noongar concept of 'biddi' is more complex than its English translation 'pathways', as described by Noongar Dr Richard Walley:

*"Since the Koondarm (our creation) our ancestral pathways have guided us through Noongar Boojar (our land) from significant place to significant place, from one water body to another. Now we work together to strengthen Gnarla Biddi (our pathways), the way that people travel and connect to places, still linked to our shared history and culture."*

There is an obvious parallel with METRONET's brief to improve rail 'pathways' by extending links, building stations and bringing people together. However, the concept of biddi reaches much further. They are guides to country. Biddi has a poetic and spiritual richness that includes:

**Traditional ecological knowledge** - The way Noongar people moved from one part of the country to the other, leading to the best watering places and resources. Biddi is not a straight line, but weaving and following natural systems.

**Ancestral knowledge** - They are memory paths. Walking biddi is walking the footsteps of the ancestors, connecting the traveller to those who have gone before, and keeping the paths open for people yet to pass.

Keeping the 'living body' of the country alive like the veins forming part of the blood circulation in a body, biddi do the work of breathing and moving. Any static picture would be misrepresenting them.

**Health** - to travel the biddi respectfully, carefully, at the right times and according to the right protocols strengthens the human body while it keeps the waters, the trees and the animals well.

**Connecting people** - camping places for instance, located at meeting places along tracks, are not only associated with water; they are fire places, generating warmth, storytelling and conviviality, draw people together in peaceful ways.

**Governance** - a relational thinking, involving a politics of linkage and sense of citizenship able to integrate local attachments, regional custodianship and global self-awareness.

**A third and fourth dimension** - Biddi is embedded in the flesh of the country and tied to the six seasons of the year.



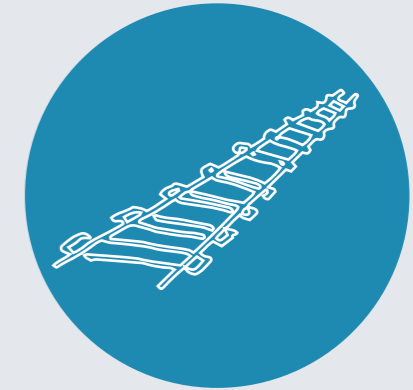
### STORY TELLING

To tell and listen to a story is to go on a journey. The point of the story is to ensure people travel safely through country, paying respect to the spirits of the place, guided to country rich in resources, respectful of other people's boundaries.

All places are inter-related and exist simultaneously in consciousness. If you start your story line here, you already have other places, other intersections in mind. The web of stories criss-cross the country and form a well-knotted network.

Traveling the network of stories is episodic and radial. Inside every 'local story' or episode, there is always a larger 'plot' or narrative that extends regionally. A passenger may leave the train at the first stop or continue to the end of line, participating in more or less of a journey.

The key point is that content generation, design and programming occurs at a network level, not at the level of individual stations. Once stories are collected, they are divided into episodes. Individual episodes can be read/seen/encountered anywhere in the network anytime.



### HARD LABOUR, NOONGAR RAIL HISTORY

Many Noongar people worked on the Western Australian Government Railways (WAGR) from the earliest days. The system spread families over the diverse railwork sites through the State and risked splitting them up. But it also provided the means of bringing them back together: families were dotted across the system and the new mobility became a means of staying in touch.

As workers and their families moved up and down the line, off and on country, improvising new homes, leading the double life of the Noongar six season economy and the colonial timetable of fixed appointments and places, they showed extraordinary sophistication and adaptability. Furthermore, a disproportionate number of Noongar men have been seriously injured on the railway; and a disproportionate number fatally so. This needs to be remembered, the sacrifice commemorated.

The Noongar rail experience should be told in a way that is consistent with Noongar connection to country. This connection is not truncated and detachable, and boundaries are inappropriate. The Noongar culture needs to be presented as a living body spread throughout the region.

# SHARED HISTORY AND CULTURAL SIGNIFICANCE



Always was always will be



**1840**

Byford's rural land supported sheep, beef and dairy cattle, orchards, and a vineyard



**1890**

Timber milling was a very early industry. The timber mills typically producing firewood and railway sleepers



**1906**

The Township of Beenyup was gazetted



**1913**

Brickworks was set up in Beenyup, it closed in 1964 due to the opening of Armadale brickworks



**2000**

The new subdivision "Byford on the Scarp" was constructed on the disused Navy Armament Depot



**FUTURE**

Byford continues to grow with significant developments such as: halls, state schools, clubs, sporting oval, trotting complex, shops, a flour mill and farms

## HISTORICAL AND CULTURAL SIGNIFICANT LOCATIONS:



Area of Aboriginal significance

01

Trotting Complex is a rural-residential area that contains a number of large lifestyle lots which support the local equine industry.

02

Byford and Districts Country Club is a major attractor within Byford.

03

Blytheswood Park, being the original estate concept for Byford influenced by the garden city movement. The area includes traditional larger lots and is contained by a green belt.

04

Byford BMX Club is one of the oldest clubs in WA and during its time folded in the mid 90's, re-opening in the late 90's as BMX was on the rise with the announcement that BMX would be included in the 2008 Olympics.

05

State Brickworks (fmr) closed in Byford in 1964. Cardup Brickworks closed 2012

Source: Byford Rail Extension – Concept Design, 'Byford Station Precinct Preliminary Place Plan', WSP/PLACE Laboratory (2021) (BRE-MNO-WSP-PL-RPT-0004)



FIGURE 25. BYFORD AREAS OF NARRATIVE INTEREST

# COMMUNITY PERCEPTIONS

During 2020 METRONET conducted an extensive survey among the communities along the Byford Rail Extension. In total 96 respondents were included in the survey. The raw data of the survey is consulted to inform this Preliminary Place Plan. Underneath is a summary of the results.

Surveyed suburbs include: Byford, Darling Downs, Cardup, Hilbert and Oakland  
Total 87 respondents in these suburbs; of which 61 from Byford

## SUBURB CHARACTER

Best thing about the suburb / what makes the suburb unique:

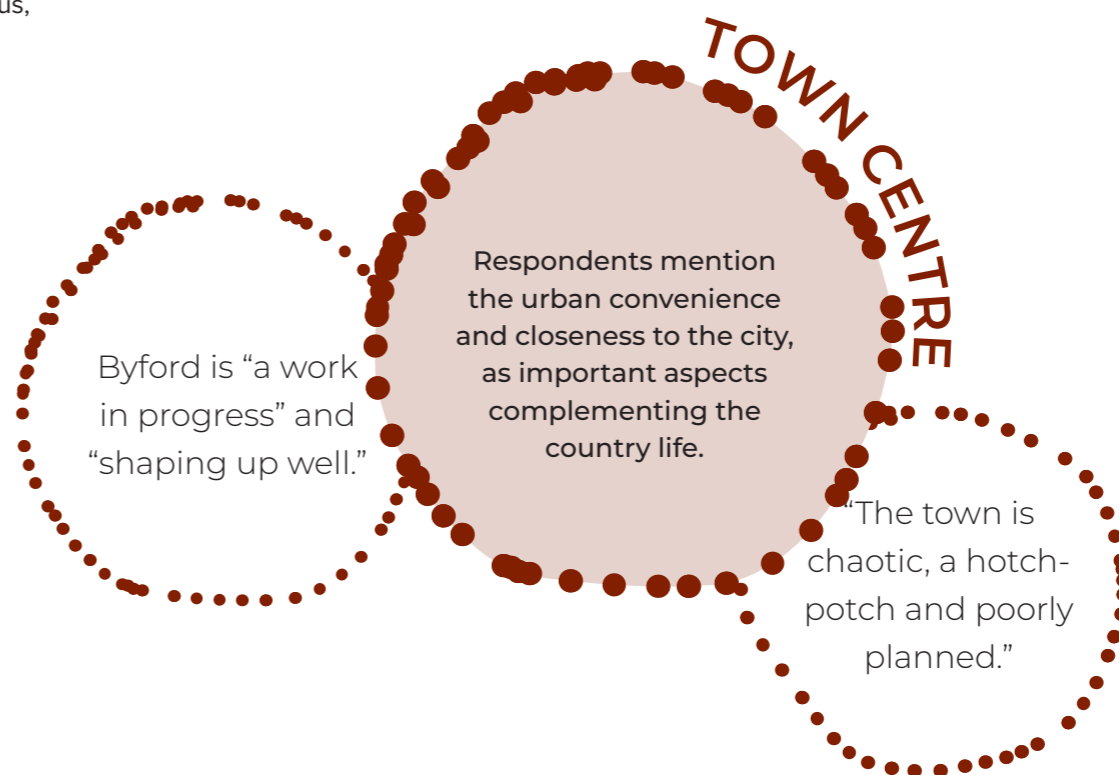
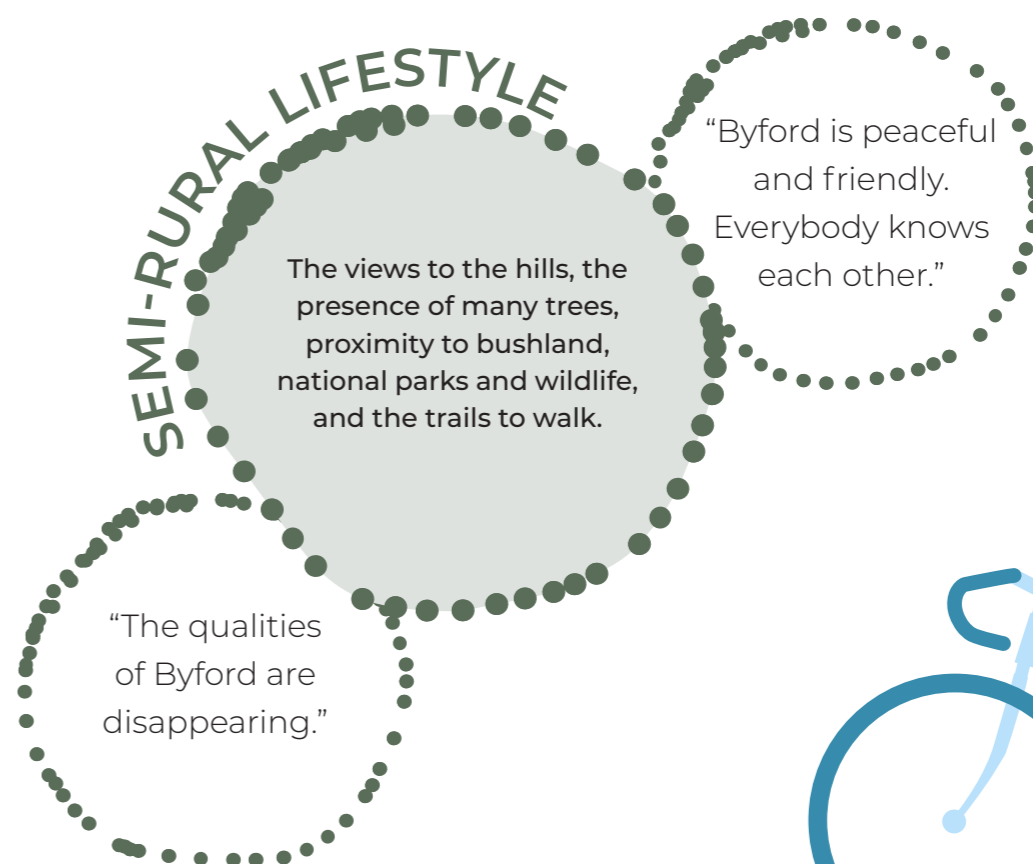
- Many respondents across all suburbs refer to the country feel and semi-rural lifestyle as the top characteristic of Byford. Many call the place is quiet and spacious. Several mention also the urban convenience and closeness to the city, as important aspects complementing the country life.
- Regularly, the respondents from Byford mention the hills as an important quality, including the views to the hills, the presence of many trees, proximity to bushland, national parks and wildlife, and the trails to walk. People in Darling Downs also refer to the space and facilities for horses.
- Byford is often called peaceful, friendly and community-oriented, where 'everybody knows each other'.
- Another quality that especially the respondents from Byford mention is that the area is affordable, while respondents from Darling Downs refer to the availability of large blocks

Although the characteristics above are identified by many, there is also a obvious change going on. The current town is described by regularly as chaotic, a hotch-potch and poorly planned, though others talk about it as 'work in progress' and 'shaping up well'. Several of the respondents refer to the qualities as disappearing or even gone already, while others seem to have a more positive look on what Byford is becoming.

## TRAIN STATION AND PRECINCT

Asked about what features would make them use the station, a clear majority focuses on 'safety', mentioned by 70 of the 87 respondents. 61 of them put 'safety' on number one. Parking is mentioned by 54% of the respondents, ranging from their 1st to the 8th priority. Integration with the local area is a clear third focus, brought up by 37%.

Source: Byford Rail Extension – Concept Design, 'Byford Station Precinct Preliminary Place Plan', WSP/PLACE Laboratory (2021) (BRE-MNO-WSP-PL-RPT-0004)





## SAFETY

80% of the respondents regard 'safety' of the station precinct as the main priority.

## PARKING

Parking is mentioned by 54% of the respondents, ranging from their 1st to the 8th priority.

## INTEGRATED

Integration of the station precinct with the local area is a clear third focus, brought up by 37%.



Image Courtesy of Symmetry



# 05

## SENSE OF PLACE

SENSE OF PLACE PURPOSE	56
LINE WIDE SENSE OF PLACE	57
SENSE OF PLACE STATEMENT	59



# SENSE OF PLACE PURPOSE

The purpose of the Sense of Place Statement (SOPS) is to outline what is culturally essential to the precinct. It will then act as a guide to ensure that any design decision making for the project aligns with these identified values.

## PLACE VALUE

METRONET sets out to deliver station precincts with public realm infrastructure that contributes to communities with a sense of belonging and support Perth's growth and prosperity.

To achieve this, the Byford station precinct needs to be more than just a space for transport – not a stand-alone area or space that feels anonymous, but a place that feels occupied and 'owned' by the communities it services. It should be a living place, with an authentic character that reflects the spirit of the place and the community. This requires a Sense of Place that the community can connect with, to generate local pride and care.

Achieving an embedded station precinct has benefits for all users, travellers and local community alike. It will make the place safer, cared for, activated by more people and more engaging to spend time.

A distinct Sense of Place, embedded in the urban and social fabric, also has economic benefits. In the current world, urban centres are no longer functioning just on their own 'catchment'. People want experiences, and for that they easily travel outside the traditional catchments. Urban centres have the potential to work much like the beaches in Perth. People have their favourite beach that they frequently visit. But they also visit other beaches, because of their different character, atmosphere and amenities.

Embedded stations precincts with a distinct Sense of Place contribute to this different experience. It attracts people, to visit, work, live and invest in the precinct. This both stimulates the urban economy and creates a competitive advantage for the precinct over others.

### THE SENSE OF PLACE STATEMENT:

- Focuses on the feel and experience of the place, not describing planning terminology;
- Needs to be distinct; if the statement could also be applicable for another station precinct in Perth, it is not representing this place sharply enough;
- Is developed based on the analysis of the local character; and
- Is to be used as an inspiration and touchstone for all further design works of the station precinct; all engineering, architectural and landscape designs and detailing contribute to making the Sense of Place a lived experience.
- Is developed as a combination of three qualities. In their interaction they define a unique Sense of Place. Every aspect of the design should somehow relate to all three qualities.
- Follow the delicate balance of being descriptive enough to define a Sense of Place, but be poetic and open enough to offer the flexibility for architects, landscape architects, engineering designers and public artists to interpret.

*Source: Byford Rail Extension – Concept Design, 'Byford Station Precinct Preliminary Place Plan', WSP/PLACE Laboratory (2021) (BRE-MNO-WSP-PL-RPT-0004)*

# LINE WIDE SENSE OF PLACE

The Sense of Place Statement is supplemented by themes and stories. This framework for the integration of stories into the engineering, station and public realm design takes a project-wide approach, drawing inspiration and advice from the METRONET NCCD, and the Place Plans as well as desktop research.

Armadale and Byford are in geographic proximity and so there are some stories and values that are shared and some that are specific. This project-wide approach responds to the shared / specific nature of the BRE project.

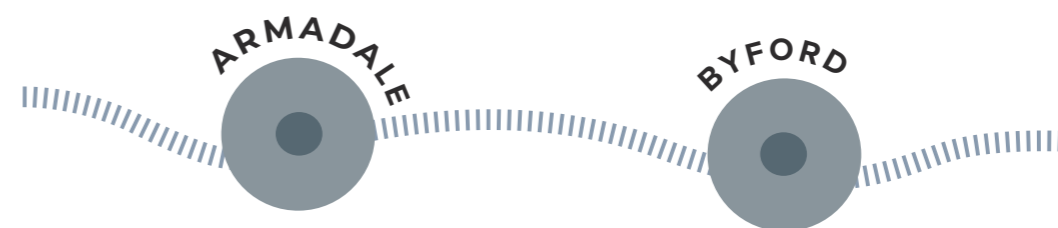
The SOPS, Themes and Stories are then used to guide the conceptual design of all public realm and built infrastructure supporting the Inner Armadale Line, stations and precinct areas.

The approach ensure the SOPS, Themes and Stories guide interpretive elements, public artwork, landscape design, station architecture, and engineering, revealing and supporting culture, history, landscape and place. This approach to public realm delivery runs across the BRE project using a framework of key themes, and connected and specific projects.



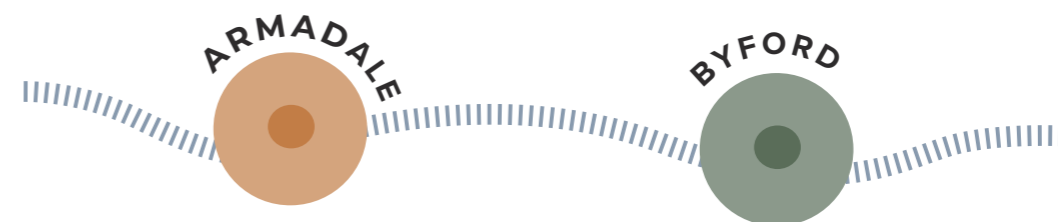
## KEY THEMES

The Key Themes for the Byford Rail Extension are high level motifs to which all of the stories can be connected.



## CONNECTED STORIES

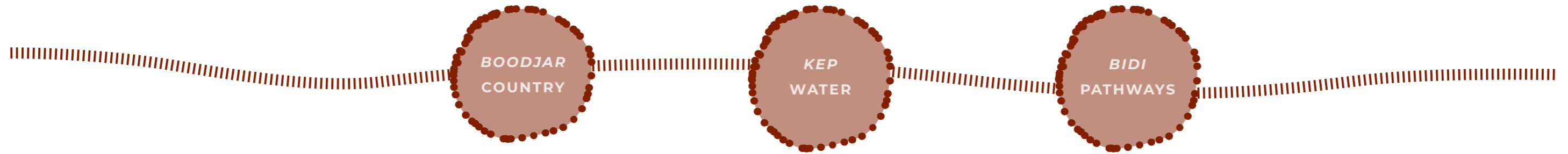
The Byford Rail Extension project shares common stories, values and public realm treatments that connect both project areas. These are predominately Noongar, paying respect to First Nations people and celebrating their unique culture. They are direct extracts from the METRONET NCCD – Byford Rail Extension. Connected stories will become identifiers for the Byford Rail Extension project.



## SPECIFIC STORIES

Individual stories, values and public realm treatments that define and belong to Armadale or Byford as a unique place, or community are gathered together under the 'specific' heading. These can be related to each station and its surrounds. Specific works will become local place identifiers for the Byford Rail Extension project.

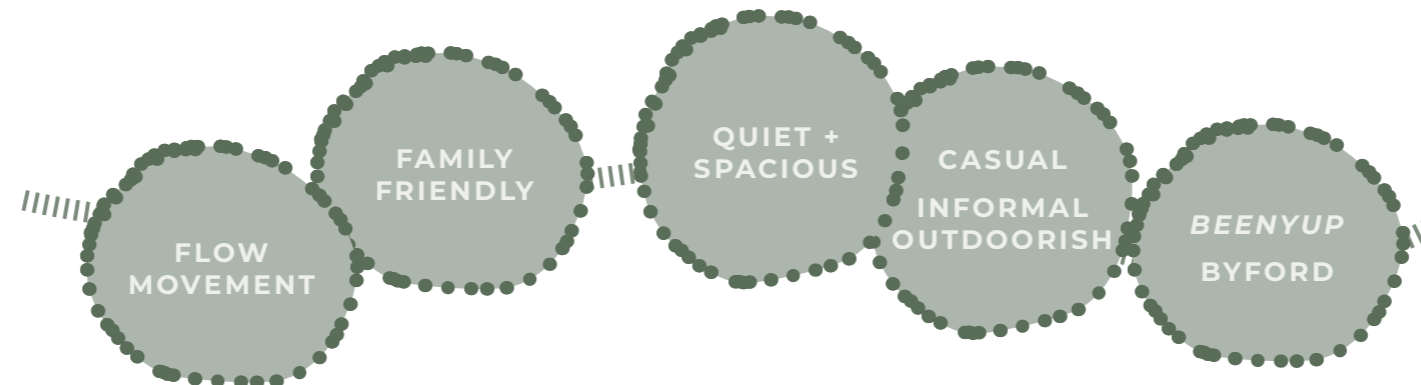
## KEY STORIES – ARMADALE + BYFORD



## CONNECTED STORIES – ARMADALE + BYFORD



## SPECIFIC STORIES – BYFORD



# SENSE OF PLACE STATEMENT

## BYFORD

Within the Metropolitan rail network, the Byford station sits firmly in the bush-line experience. Coming both from the south, with Australind, and from the north, there is bush along the line with views to the hills. Arriving at Byford, you are at the doorstep of the town centre, with the station linking the old and the new, a combination of urban amenities with a relaxed country feel set against the backdrop of Moorda. You are closer to the Scarp than at any station in the Metropolitan area, with paths leading to the bush tracks in the hills and bridle trails in the west, while a stream coming from the hills flows right in front of you.

*This is a spacious and outdoorish place, where people connect in a relaxed way and young lives come to flourish.*

*All these elements, combined with the themes of the Beenyup Noongar Cultural Context Document, start to tell a story of place that is essentially Byford.*



### INFORMAL

- / Open and Friendly
- / Relaxed
- / Peaceful
- / Playful

Complementing the other two statements, the Byford station precinct feels informal, open and relaxed. It is a place breathing a slow pace, even when people might be rushing through to catch their train. The place is functional and organised, but without looking rigid and constricting. It is playful, fluent and friendly



### GROWING

- / Old and New
- / Exploring and Developing
- / Youthful and Fresh
- / Grounded

The Byford station precinct is a place of becoming. It is a place of settling in a settled environment. Old and new go together hand-in-hand. The place feels comfortable and safe. It is youthful and forward looking, while remembering the past; the orchards, the brickworks and country.



### OUTDOORISH

- / Brooks
- / Country Feel
- / Simple
- / Experiencing the Seasons

The Byford station precinct contributes a country feel to the town centre. The hills and brooks can be experienced everywhere, with each season creating its own spectacle. Spaces and buildings remind of the natural landscape and rural farms, while accommodating the urban convenience of a town centre. Life happens preferably outside and spaces provide for that. Even hikers and horses can be seen in town.

Source: Byford Rail Extension – Concept Design, ‘Byford Station Precinct Preliminary Place Plan’, WSP/PLACE Laboratory (2021) (BRE-MNO-WSP-PL-RPT-0004)

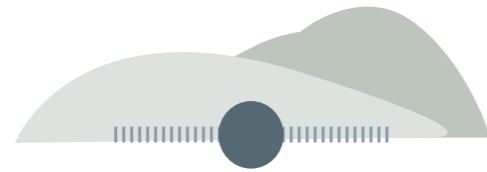


# 06

## FINAL PLACE PLAN

PLACE PRINCIPLES	62
STATION PRECINCT SPACE TYPOLOGIES	64
PLACE PLAN	66
DAY ONE STATION WELCOME PLACE	70
DAY ONE JOURNEYS AND ACCESSIBILITY	71
FUTURE-PROOFING THE STATION PRECINCT	72

# PLACE PRINCIPLES

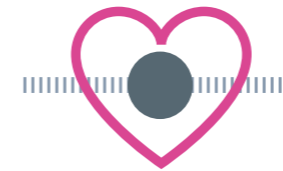
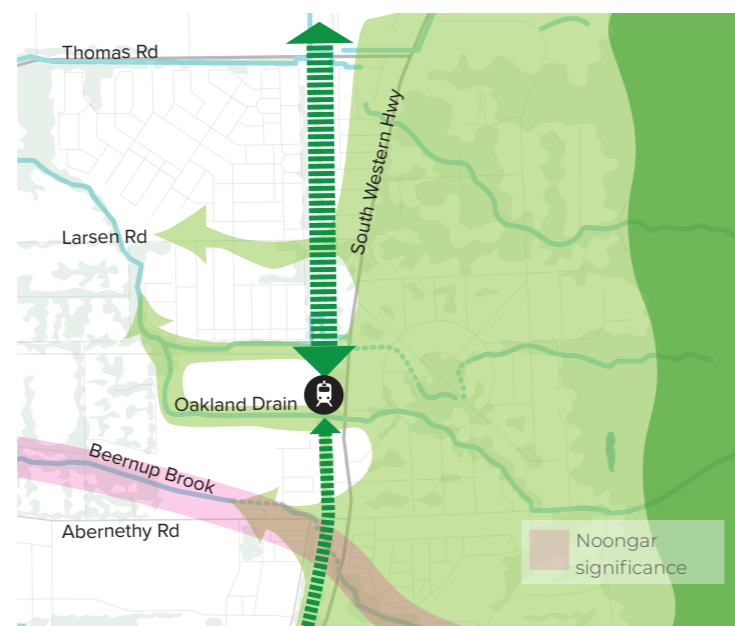


## FOOTHILLS CHARACTER

Continue the hills landscape into the station precinct. Reflect the bushland character, provide a cooling environment and reinforcing the bush railway line character by retaining existing and planting additional trees.

### DESIGN RESPONSE:

- Moving the rail alignment to the west to retain as many mature trees west of George Street as possible.
- Align the station precinct and infrastructure layout with the greenway zones including the Oakland Drain North and South. Revitalisation of the drains is included in the Town Centre Masterplan of the Shire of Serpentine Jarrahdale.
- Locating the bus interchange parallel to the rail corridor, with some space and along the eastern edge to plant trees, strengthening the 'bushline character'.
- Designing the Welcome Place as a 'bush plaza', with a focus on soft scape and sense of place.
- Using native tree species appropriate to the Byford landscape type.

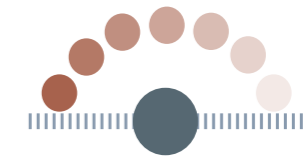


## TOWN CENTRE LOOP

The station precinct should be the arrival place within the town centre loop, provide orientation for users and visitors and link the old and new sides of town.

### DESIGN RESPONSE:

- Providing a comfortable and spacious pedestrian only east-west connection to the north of Clara Street West, in front of the train station.
- Provide a pedestrian crossing across Clara Street on the west side of the station to connect to the future civic building and on to the western core of the Byford Town Centre.
- Provide a smooth pedestrian crossing on George Street north of the Clara Street West T-section to connect to the eastern core of the Byford Town Centre.
- Provide additional permeability to the western town centre, with footpaths along Clara Street West and Sansimeon Blvd, and a PSP towards Abernethy Road.



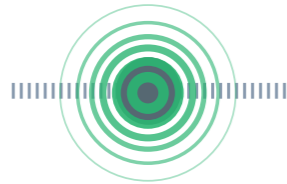
## OUTDOOR ACTIVITIES & GREEN NETWORK

Byford is known for outdoor lifestyle activities like horse riding, mountain biking, BMX, and hiking. The station precinct is central to linking these activities via a green network and encourage sustainable modes of travel like walking and cycling.

### DESIGN RESPONSE:

- Locating the train station entrance to the Metropolitan line platforms directly across the east-west greenway corridor.
- Including a treed median and verge between the Clara Street West carriageway and the east-west pedestrian connection to the north.
- Designing the Welcome Place for outdoor activities in a bush setting, under shading trees and including a range of amenities for activation.
- The inclusion of recreational paths in the greenways is part of the Shire's plans for the Town Centre. Building on this network, a pedestrian, cycle and horse-riding crossing of the Australind line south of Clara Street West should be included.
- Including tree shaded PSPs to the north and south.



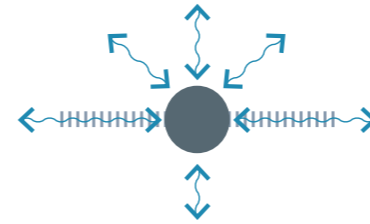
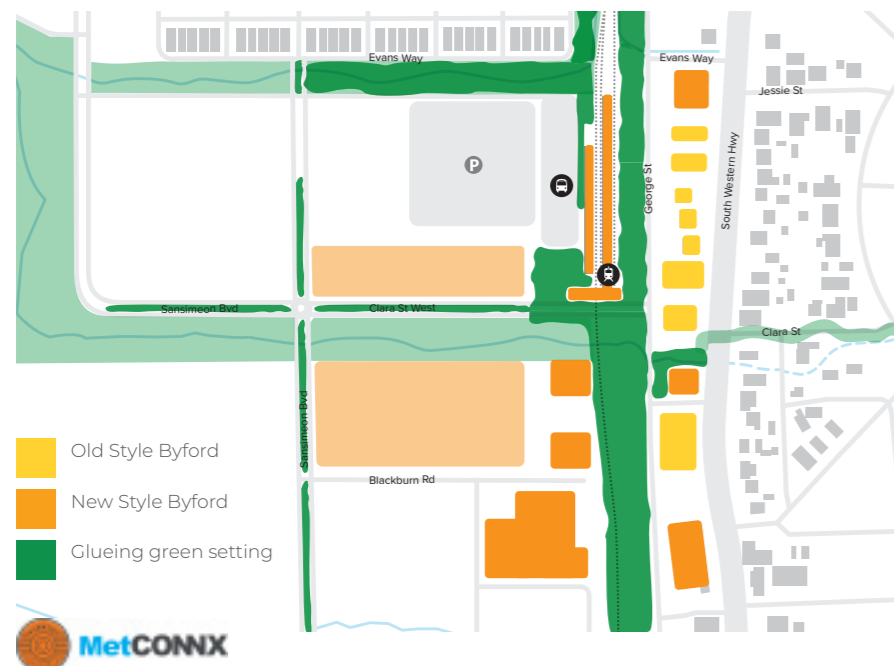


## INTEGRATION OF OLD AND NEW

The architecture refers to rural town and farm-like typologies in a modern expression. The public realm with an abundance of trees and planting forms the setting for individual buildings, glueing it all together, and proving a canvas to celebrate a modern town centre and Noongar culture.

### DESIGN RESPONSE:

- Drawing upon the local vernacular, simple elegant structures, honest and self-expressive in make-up, these series of large planes creating expansive shade, and directing movement while being open, ventilated and porous to the amazing natural landscape and surrounds.
- Designing the landscape with seasonal effects of flowering plants to mark routes and places.
- Setting up Clara Street West as a future main street, with the future footpath along a future active building frontage.

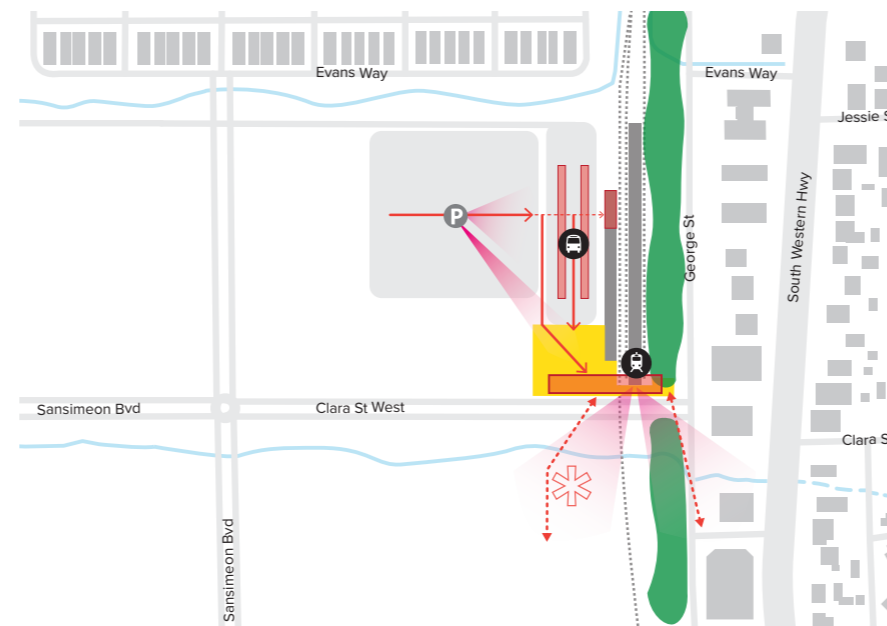


## INTUITIVE WAYFINDING

Pedestrian routes follow desire lines accompanied by natural shade and view lines to recognisable features (architecture, landscape or art), with the station canopy as central landmark.

### DESIGN RESPONSE:

- Providing filtered views from the Metropolitan line platform entry/ exit to both the new and old sides of the town centre.
- The introduction of Plaza Road adjacent to the west of the station plaza that improves permeability for pedestrians, cyclists and vehicles.
- View-line from the K+R to Clara Street West and the station corner.
- Footpaths along the swale in the Park and Ride, with views to the bus interchange canopy.

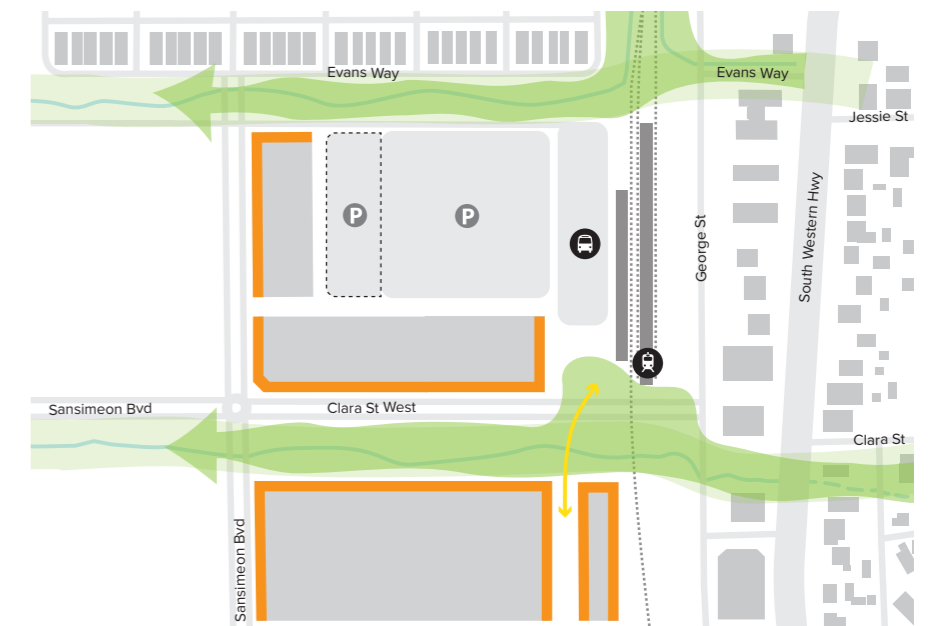


## FUTURE PROOFING

The layout of the station infrastructure (bus interchange and park and ride carpark) is designed to accommodate future town centre development all around it and mitigate negative impacts.

### DESIGN RESPONSE:

- Designing a future street network that promotes a permeable precinct which supports high quality, active development outcomes.
- Locate the Park and Ride carpark such that it can be framed with developable lots. Along the west side space is kept available for a range of typologies, including townhouses and multi-level mixed use development with frontages to Evans Way and a future internal street. Along the south side space is kept available for multi-level mixed use development with frontage to both Clara Street West and the north (northern orientation).
- Including a line of trees along the west side of the Park and Ride carpark to soften the future street.
- Reserved space for a future car parking extension to the west.
- Designing the Welcome Place to anticipate future active frontage along the western side, while it also works without that building facade at Day One.





# STATION PRECINCT SPACE TYPOLOGIES

Core to METRONET is to deliver technically and operationally well-functioning rail and bus infrastructure within budget. In addition, METRONET has set the goal to achieve more than that. METRONET also aims to deliver easily accessible travel options, communities with a sense of belonging and to unlock development potential around the stations.

To translate these objectives into tangible requirements, the Place Plan is focussing on achieving three touchstones:

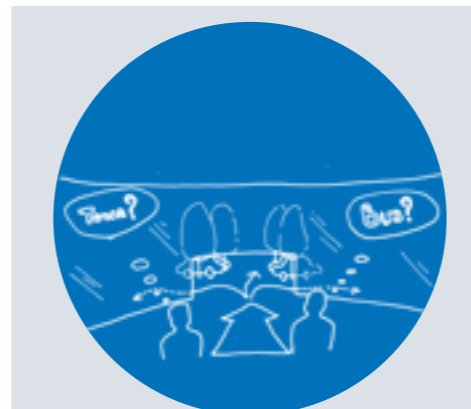
- Smooth and comfortable transfer
- Pleasant and meaningful time spending
- Embedded in the community

These qualities need to be achieved within the localised context of the station infrastructure, including the train station, bus interchange, park and ride, and the public realm types that connect these places to each other and to the surrounding urban network: the welcome place, the streets and the parks and landscape zones.

The plans on the following page (Figure 26 and Figure 27) indicate the layout of these spatial typologies within the Byford Station Precinct. The following pages state what experiences these spaces should provide, through defining the Sense of Place that should be achieved through the design, the functioning of the places on Day 1 of delivery and the spatial vibe or aesthetics. The following Public Art Strategy further supports these experiences. The Landscape Concept at the end of this chapter provides a high-level demonstration how the place requirements can be translated into a physical design for the public realm.

Source: *Byford Rail Extension – Concept Design, ‘Byford Station Precinct Preliminary Place Plan’, WSP/PLACE Laboratory (2021) (BRE-MNO-WSP-PL-RPT-0004)*

## TRANSPORT BASED SPACE TYPOLOGIES



### TRAIN STATION

As people arrive at the train station the experience must be quick and easy. The space needs a design organised around smooth flows and intuitive wayfinding - no searching for where you need to go to, but a space that provides all the clues before relying on signage.



### BUS TRANSFER / STATION

The bus transfer / station needs to be easily identifiable for travellers. It needs to accommodate the technical requirements of buses, without compromising the vibrancy of people's places. It should incorporate seating, shade, lighting and weather protection to ensure travellers' comfort and safety.



### PARK AND RIDE

Car parking tends to take up large areas. It should not be a harsh environment, only accommodating large numbers of cars, but also needs to provide for pedestrians' comfort and contribute to the surrounding (urban) landscape.

## PEOPLE AND LOCATION SPECIFIC SPACE TYPOLOGIES



### WELCOME PLACE

The welcome place is the core of the station precinct. It is the place where people arrive in the town or suburb, that shows the community's pride. It is also the place where people need to make decisions if they transfer. It needs to be appropriately connected and scaled.



### MAIN STREET

The main street needs to have a direct relationship to the entry of the station precinct. This connection should provide a strong local presence, good accessibility to the station and connection to the Byford natural environment to provide a sense of place. It should be 40km/hr speed limit and appropriate public domain treatments to signal its function.



### CONNECTIONS TO LANDSCAPE

The train station needs to feel embedded in a landscape that reflects the Byford semi-rural bush character.

FIGURE 26. STATION PRECINCT SPACE TYPOLOGIES



FIGURE 27. PLACE TYPOLOGIES - DAY ONE



**LEGEND**

- Train Station
- Welcome Place
- Main Street
- Connections to Landscape
- Bus Station
- Park and Ride
- Future Development

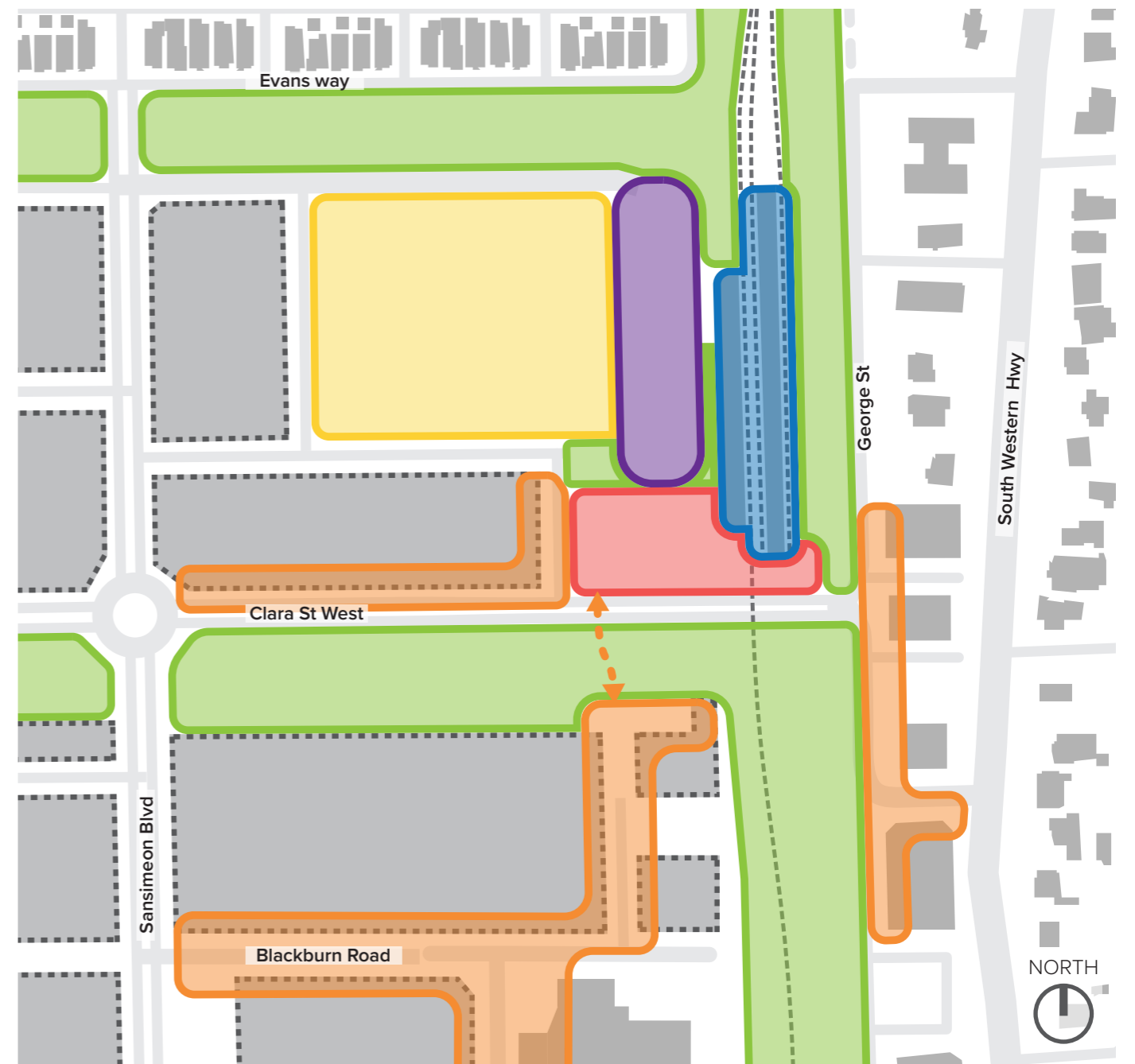


FIGURE 28. PLACE TYPOLOGIES - FUTURE

# PLACE PLAN DAY ONE

The place plan diagram highlights design considerations and actions to ensure Byford Station is embedded in its urban and landscape context, from day one and into the future. The following pages demonstrate the intent to be carried through to detailed design.

This and the next page illustrate the intended situation at Day One. The following two pages illustrate the future situation.

## LEGEND

















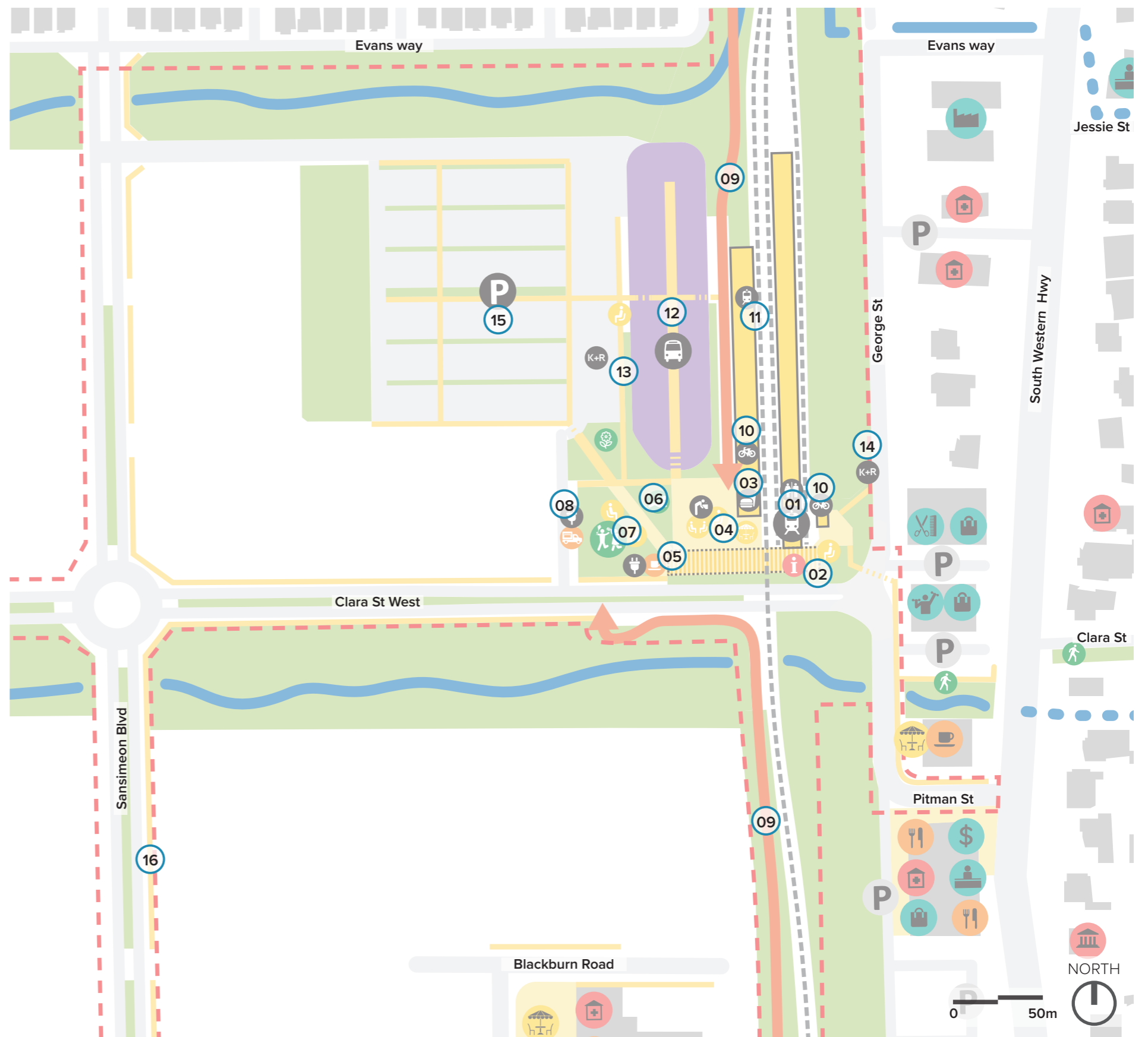
-  Train station
  -  Bus station
  -  Existing building
  -  Future development
  -  Plaza
  -  Parkland
  -  Water
  -  Road & Car park
  -  PSP
  -  Pedestrian route
  -  Station amenities
  -  Food & Beverage
  -  Commercial
  -  Community
  -  Plaza activities
  -  Parkland activities
- black = existing / white = new



FIGURE 29. PLACE PLAN - DAY ONE

















### DAY ONE ACTIVATION

- 01 Metropolitan line platform with CSO booth, ticket machines and public toilets behind the fare gates.
- 02 Arrival Place with seating
- 03 Station staff building and kiosk.
- 04 Welcome Place with a variety of individual and group seating, shade & drinking water.
- 05 Coffee cart space with power & water.
- 06 Relaxation lawn.
- 07 Themed nature play.
- 08 Shared street, space for food trucks, with event power & water.
- 09 PSP to Mundijong (south) and Armadale (north).
- 10 Secure bike storage.
- 11 Australind platform.
- 12 Shade and weather protection above bus station.
- 13 Main Kiss+Ride.
- 14 Minor (additional) Kiss+Ride at George Street.
- 15 Park'n'Ride car park
- 16 Footpath along Sansimeon to schools.



# PLACE PLAN FUTURE

## LEGEND

-  Train station
  -  Bus station
  -  Existing building
  -  Future development
  -  Plaza
  -  Parkland
  -  Water
  -  Road & Car park
  -  PSP
  -  Pedestrian route
  -  Station amenities
  -  Food & Beverage
  -  Commercial
  -  Community
  -  Plaza activities
  -  Parkland activities
- black = existing / white = new

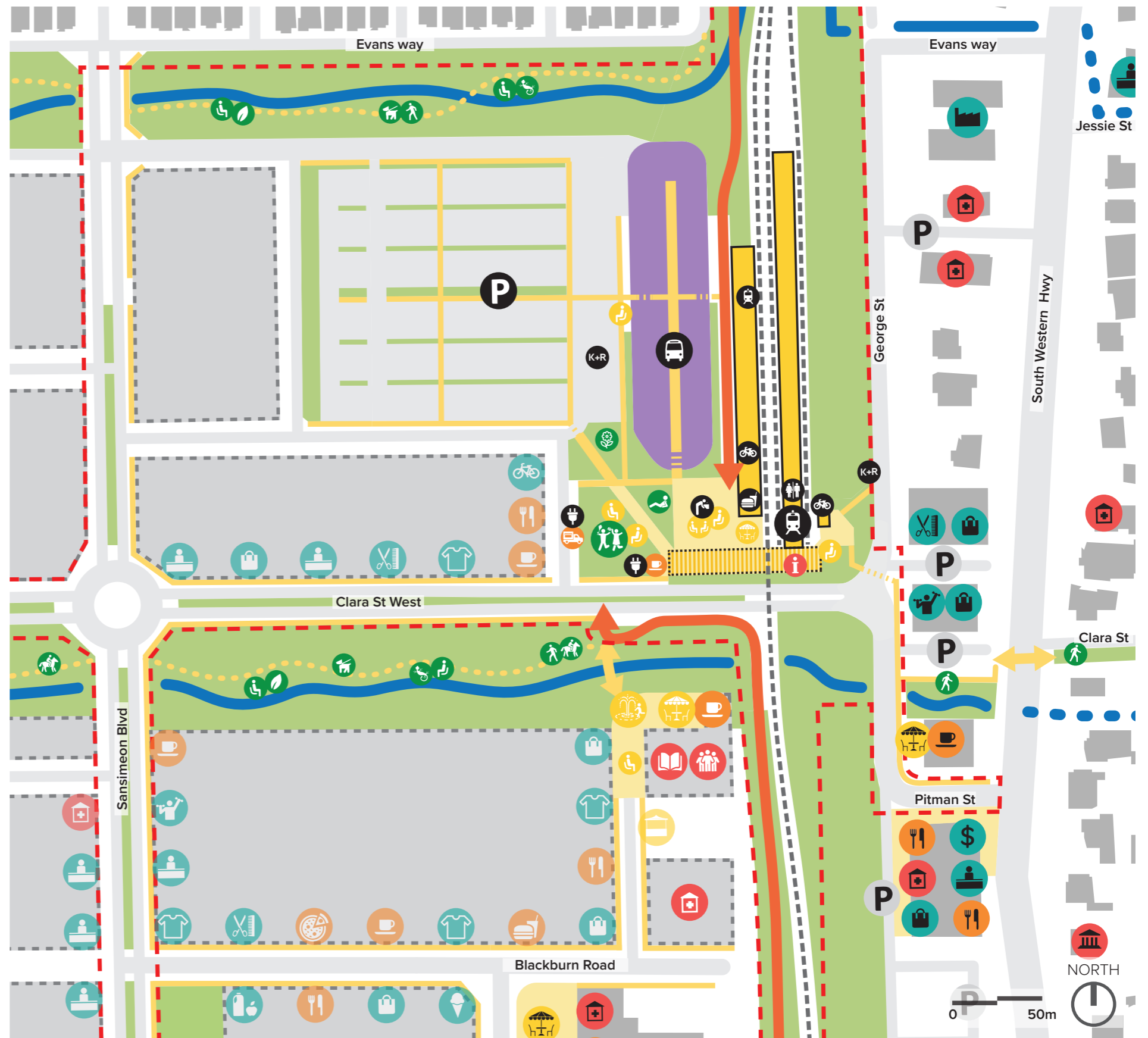


FIGURE 30. PLACE PLAN - FUTURE

## FUTURE DEVELOPMENTS

- 17 Relocated pedestrian crossing over SW Hwy towards Blytheswood Park and the hills trails.
- 18 Mixed-use development with active frontage to the Welcome Place and along Clara Street West.
- 19 Medium density residential.
- 20 Potential extension of the Park'n'Ride car park.
- 21 Oakland Drain North Parkland with recreational uses.
- 22 Oakland Drain South Park, with recreational use and horseback-riding facilities, connecting to the hills (east) and the Trotting Complex (west).
- 23 Pedestrian connection between Welcome Place and new town centre.
- 24 Pocket plaza with alfresco and splash park.
- 25 Civic building with library, multi-agency and cafe.
- 26 Health hub.
- 27 Town centre street connecting to Blackburn Road, with potential for street markets.
- 28 Active frontage along town centre streets.
- 29 Mixed-use town centre development



# DAY ONE STATION WELCOME PLACE

## INFORMAL NATURE PLAY

Byford's brooks are culturally significant for the Noongar people. This is reflected in informal nature play, adding attraction for families and enhances the semi-rural bush setting.

## KIOSK

The kiosk is situated to activate the Meeting Place and provide good social surveillance.

## MEETING PLACES

The Welcome Place included places for individuals and small groups to sit and relax.

## WAYFINDING

The precinct has an informal and welcoming vibe for arriving visitors and locals, to orientate and connect to the town centre and nearby hills.



FIGURE 31. DAY ONE STATION WELCOME PLACE IMPRESSION

# DAY ONE JOURNEYS AND ACCESSIBILITY

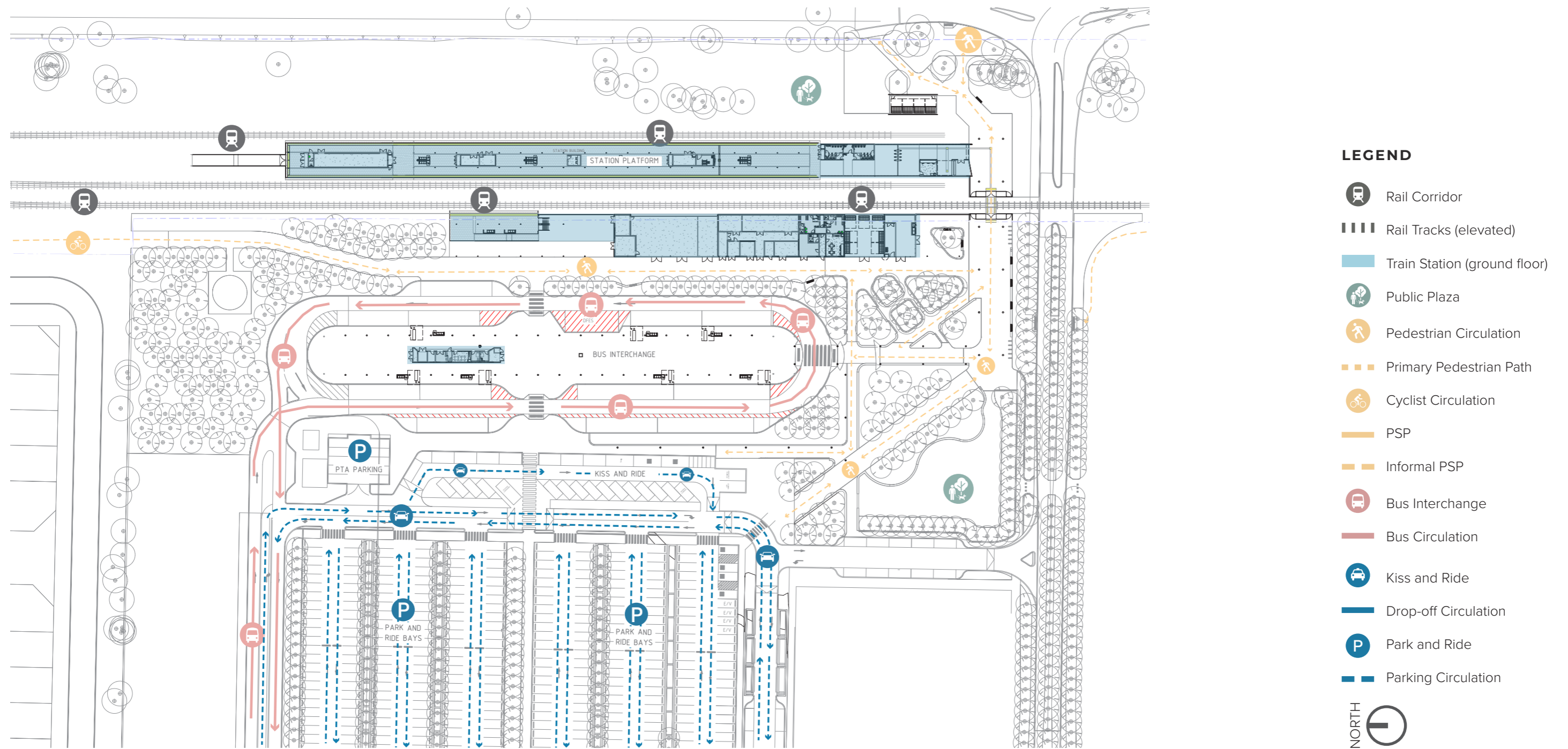
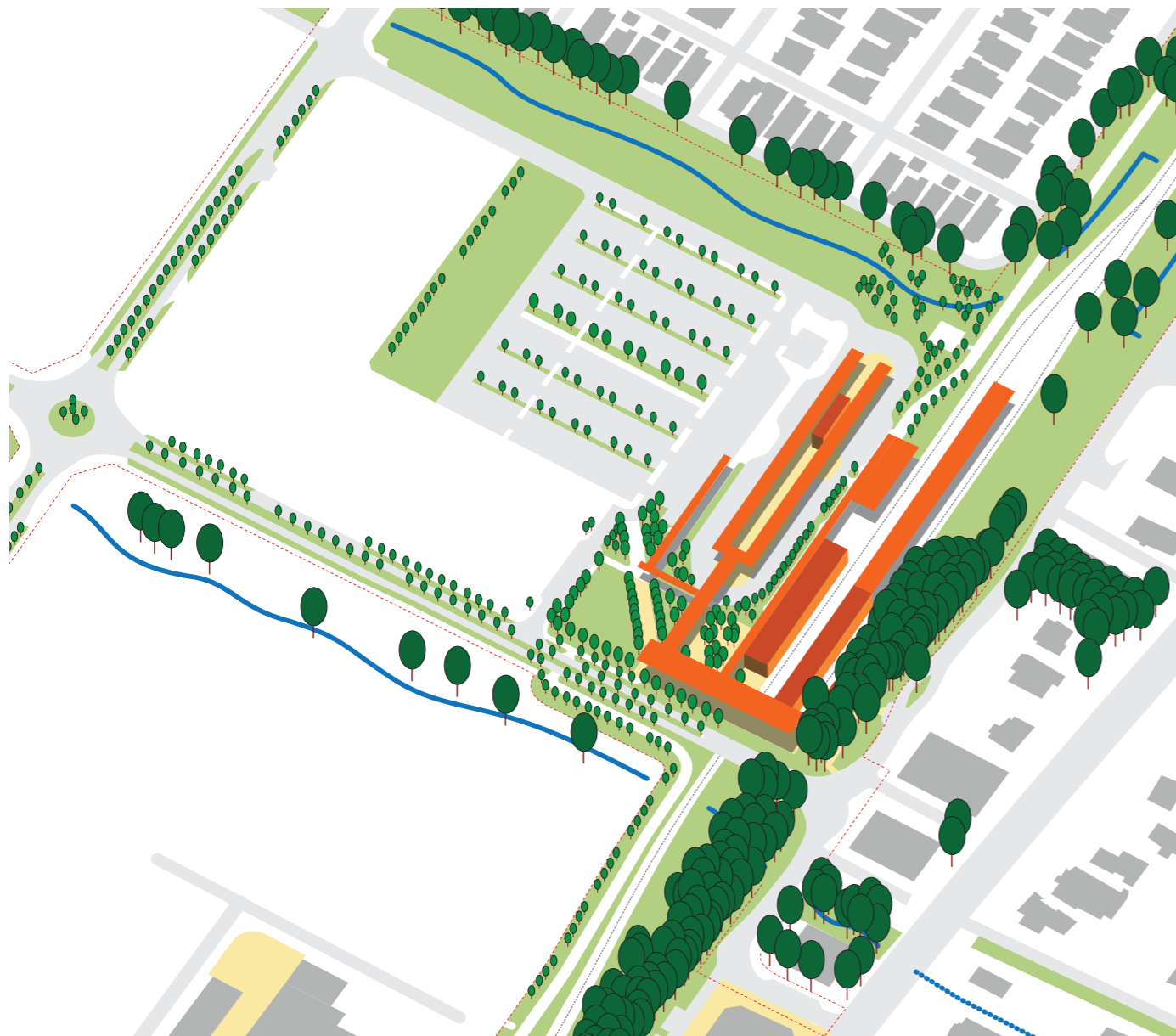


FIGURE 32. DAY ONE JOURNEYS AND ACCESSIBILITY

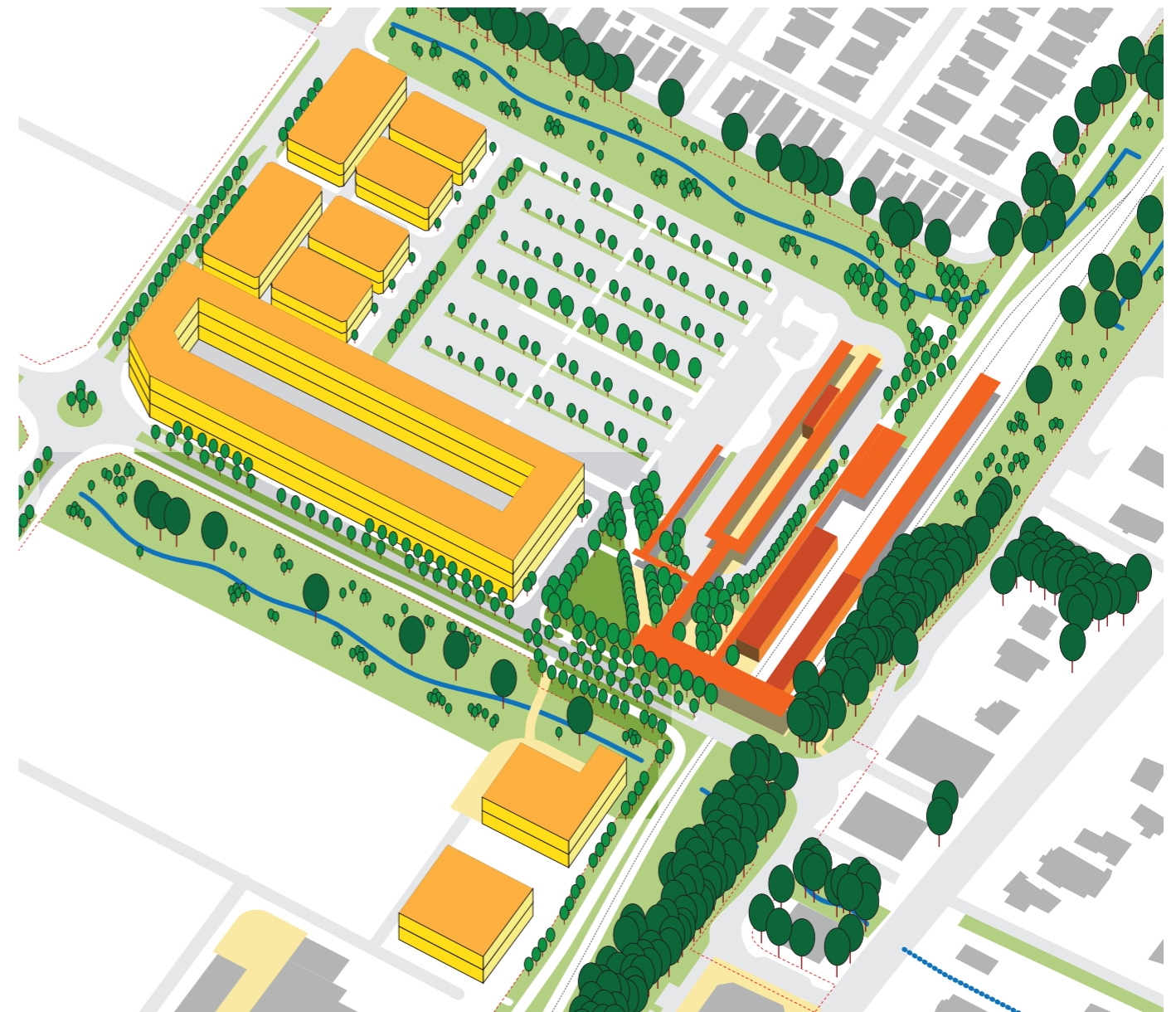


# FUTURE-PROOFING THE STATION PRECINCT



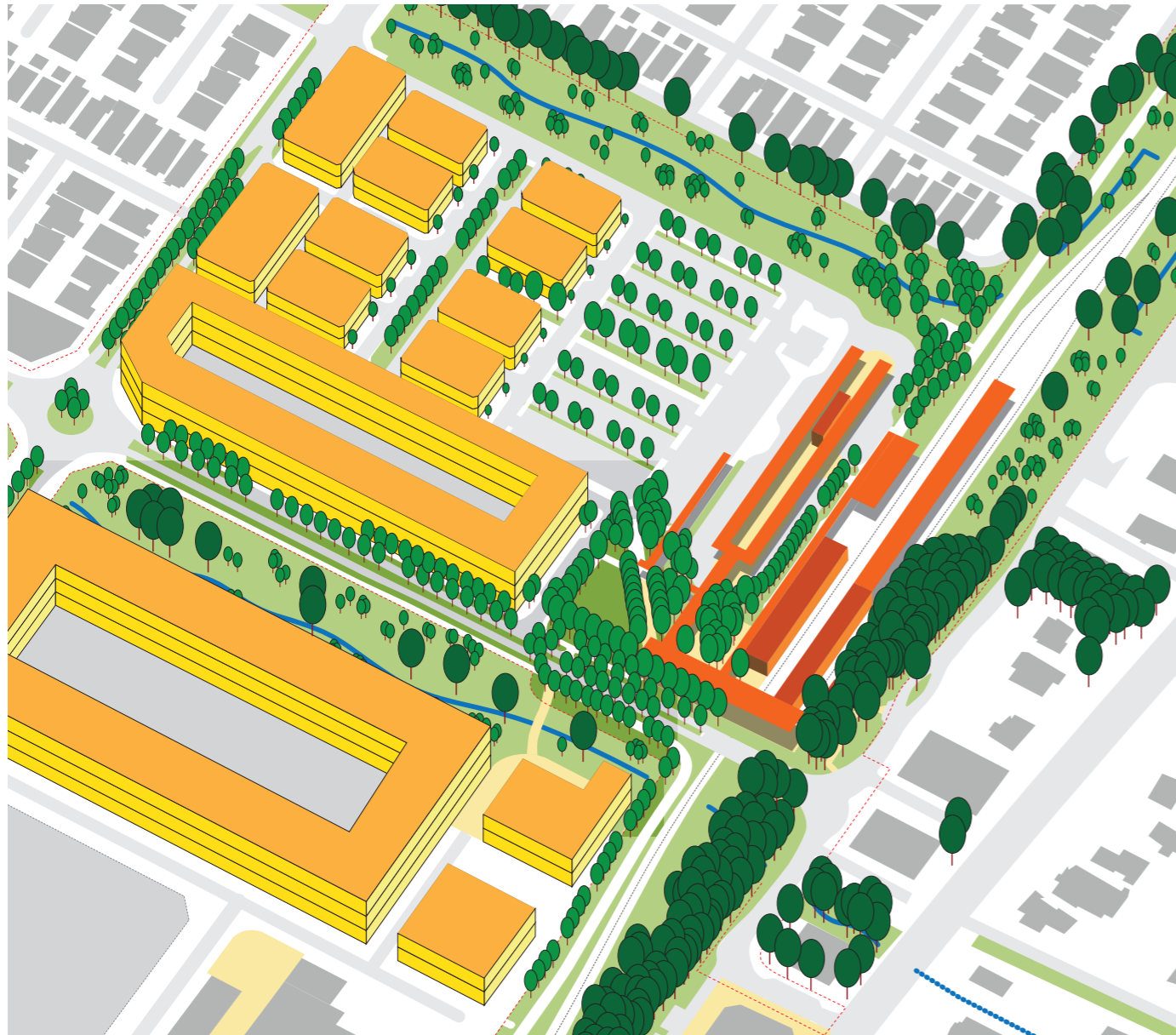
**FIGURE 33. FUTURE-PROOFING – DAY ONE**

- Train and bus station canopies
- Welcome Place with amenities, landscaping and trees planted in a larger size
- Clara Street West and Evans Way (internal precinct roads planned but not delivered on Day One)
- Kiss'n'Ride & Park'n'Ride facilities
- Revegetation of Oakland Drain North and in the rail corridor



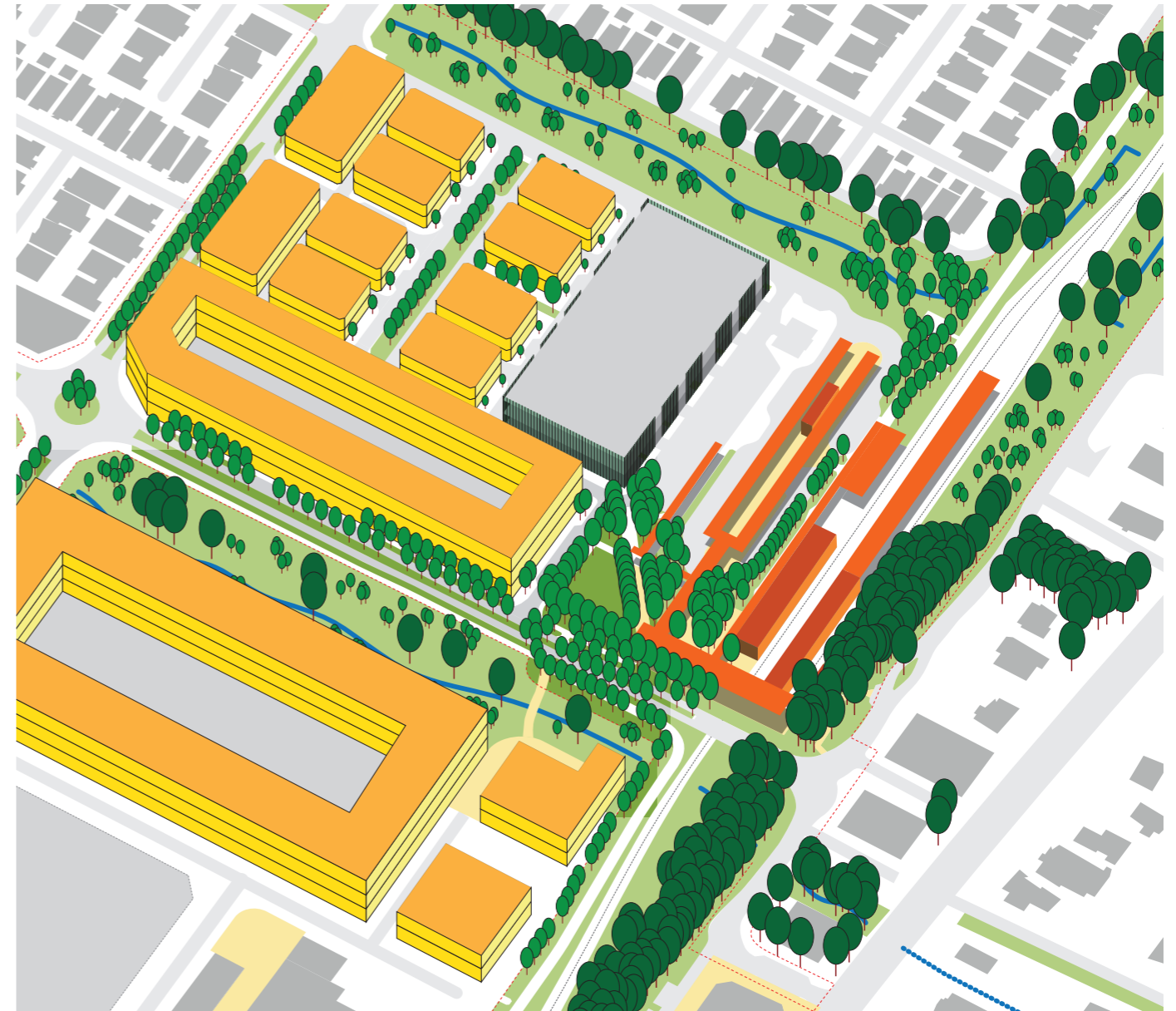
**FIGURE 34. FUTURE-PROOFING – FUTURE**

- Development of civic buildings and plaza connecting the station with the western town centre
- Oakland Drain South developed into a linear parkland connecting to the Trotting Complex (west) and hills (east)
- Development of mixed-use along Clara St West and town houses between Evans Way and the Park'n'Ride
- New precinct access roads to enable these developments
- Extension of the Park'n'Ride facilities (if required)
- Revegetation of Oakland Drain North and the rail corridor results in upcoming trees



**FIGURE 35. FUTURE-PROOFING – LONG-TERM PERSPECTIVE (A)**

- Reduction of Park'n'Ride facilities allows for the western portion of this facility to be redeveloped to urban uses
- Further development of the western town centre
- Trees continue to mature, providing shade and urban cooling



**FIGURE 36. FUTURE-PROOFING – LONG-TERM PERSPECTIVE (B)**

- Further increase of Park'n'Ride facilities is addressed with a multi-deck car park. The multi-deck facility allows for a reduction of the car park footprint, freeing up space for additional urban uses
- Further development of the western town centre
- Trees continue to mature, providing shade and urban cooling



# 07

## LANDSCAPE

LANDSCAPE PLAN	76
SECTIONAL STUDY	78
TREES AND SHADE	80
LANDSCAPE CHARACTER - HARDSCAPE	82
LANDSCAPE CHARACTER - SOFTSCAPE	84
INVESTMENT LEVELS	86

# LANDSCAPE PLAN

This Landscape Design identifies high-level opportunities that will be further developed in the next stage of works for the BRE project.

The landscape design seeks to utilise the station development to transform under-utilised land to the benefit of the community and introduce functional and safe activated spaces. The goal is to encourage as many people to use these spaces as possible by creating a community-sought destination.

A key aim is not to hide the station through landscape but to complement its architectural form, to integrate with the existing surrounds and seek to achieve goals within the Urban and Rural Forest Strategy provided by the Shire of Serpentine-Jarrahdale. There needs to be provision for clear sight lines through the station grounds to encourage adjacent businesses and developments to respond to the precinct by opening out onto, rather than turning away and internalising their active edges.

The masterplan on the following page illustrates the station landscape design concept. The concept explores the development of a place to meet friends or to 'hangout'. Though limited by infrastructure, the placement of trees in the station precinct was prioritized in order to maximise natural shade, amenity and the bushland character.

The landscape and public realm design focuses on four principles:



## 01 CULTURALLY INCLUSIVE

Through the creation of spaces that promote social and cultural knowledge exchange, and the use of water and materials to tell and celebrate stories.



## 02 REFLECT THE CHARACTER

By supporting appropriate scale and built form that responds to the semi-rural location, and through the use of trees, landscape and water to reflect the bush and unify the 'Old Town' and 'New Town' precincts.



## 03 FLEXIBLE & ADAPTABLE

For different uses and function to create one space with many experiences. Simple design will enable timeless spaces and a broad range of opportunities.



## 04 HUMAN COMFORT

By creating a legible ground plane with an enhanced sense of arrival, and through clear connections, sightlines and safety. Shade and shelter will also provide thermal comfort and integrate a network of paths.

At the Welcome Place, these principles are achieved through 4 key moves:



## 01 OPEN WOODLAND

- Tall, clear trunked trees to provide shade, shelter, and clear sightlines.
- Relaxed and informal seating and gathering spaces



## 02 STATION WALK

- Clear, generous and safe pathways. Regular places of rest and respite.
- Cultural and contextual narrative told through materiality.



## 03 FOREST GARDEN

- Simple, robust, and multi-functional spaces provide a diversity of spaces.
- All-ages nature playground, seating, and turf areas provide an inclusive community space in the centre of town.



## 04 SEATING

- Simple, robust seating supports activities and aids circulation.
- A dual-level deck, able to be used both as a stage and as seating.



FIGURE 37. LANDSCAPE MASTER PLAN BYFORD STATION PRECINCT

- |  |                    |
|--|--------------------|
| 01 Train Station                         | 12 Shelters        |
| 02 George Street entry                   | 13 Bus terminal    |
| 03 Bicycle shelter                       | 14 Welcome Gardens |
| 04 Kiosk                                 | 15 Kiss & Ride     |
| 05 Bush Plaza                            | 16 Staff parking   |
| 06 The Green                             | 17 Public parking  |
| 07 Play space                            | 18 WSUD            |
| 08 Cafe cart opportunity                 | 19 Pedestrian path |
| 09 Plaza Street, including power & water | 20 Irrigation tank |
| 10 Clara St West crossing                | 21 Revegetation    |



FIGURE 38. WELCOME PLACE (DETAIL)

# SECTIONAL STUDY

The sections on subsequent pages illustrate how the design can respond to the infrastructural requirements to create a Sense of Place including a comfortable microclimate for people.

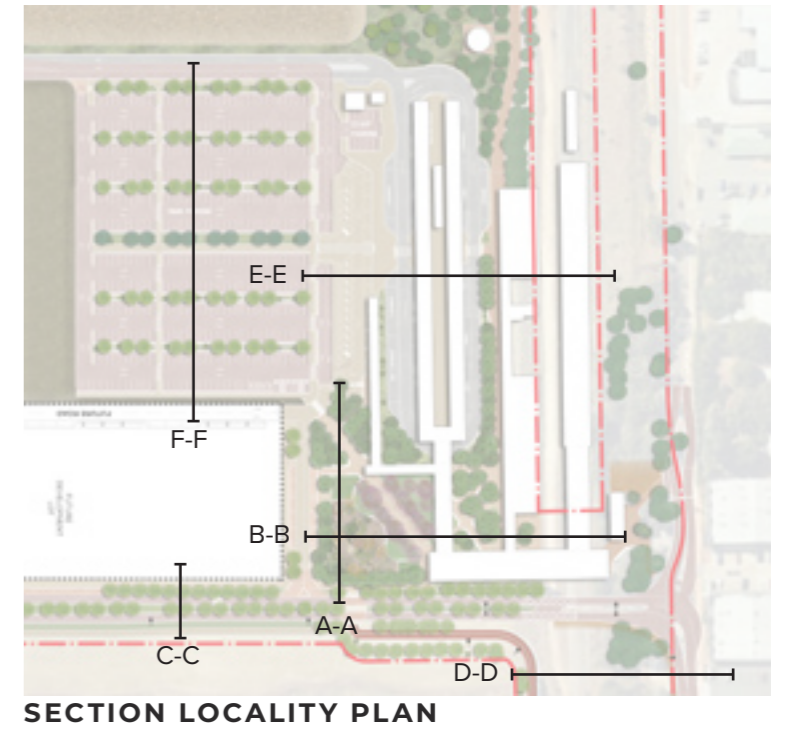


FIGURE 39. SECTION A-A



FIGURE 40. SECTION B-B



FIGURE 41. SECTION C-C

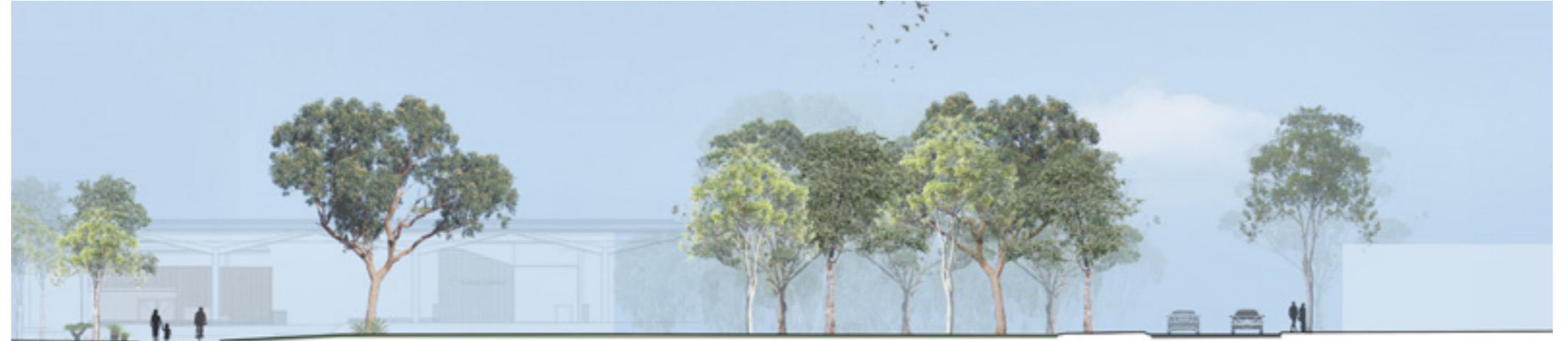


FIGURE 42. SECTION D-D



FIGURE 43. SECTION E-E



FIGURE 44. SECTION F-F



# TREES AND SHADE

Tree selection, where appropriate, should be tall and linear with a connecting canopy that provides abundant natural shade. The aim should be to soften views to the overhead railway power lines, while not detracting attention from the station's building, its entry and surrounding public spaces

The retention of existing mature trees is essential to ensuring continuity of the wider habitat and ecosystem of Byford whilst reducing the need for irrigated areas.





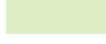

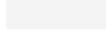

Mature trees in and around the rail corridor are to be protected and celebrated as part of the context of site.

The proposed trees will be strategically located to increase shade, canopy coverage and reduce the urban heat island effect from the proposed infrastructure. They will contribute to the overall look and feel of the site. Tall, clear trunked trees should be selected.

Suitable plants may need to be exotic to compliment native selections and the local environment.

The use of tree species aligns with the goals within the Shire of Serpentine-Jarrahdale's Urban and Rural Forest Strategy to retain and increase trees within urban areas.

## LEGEND

-  Trees to be retained
-  New trees
-  Tree to be removed
-  Shade structure
-  Planted landscape contributing to co
-  Plaza
-  Road & Car park
-  Water

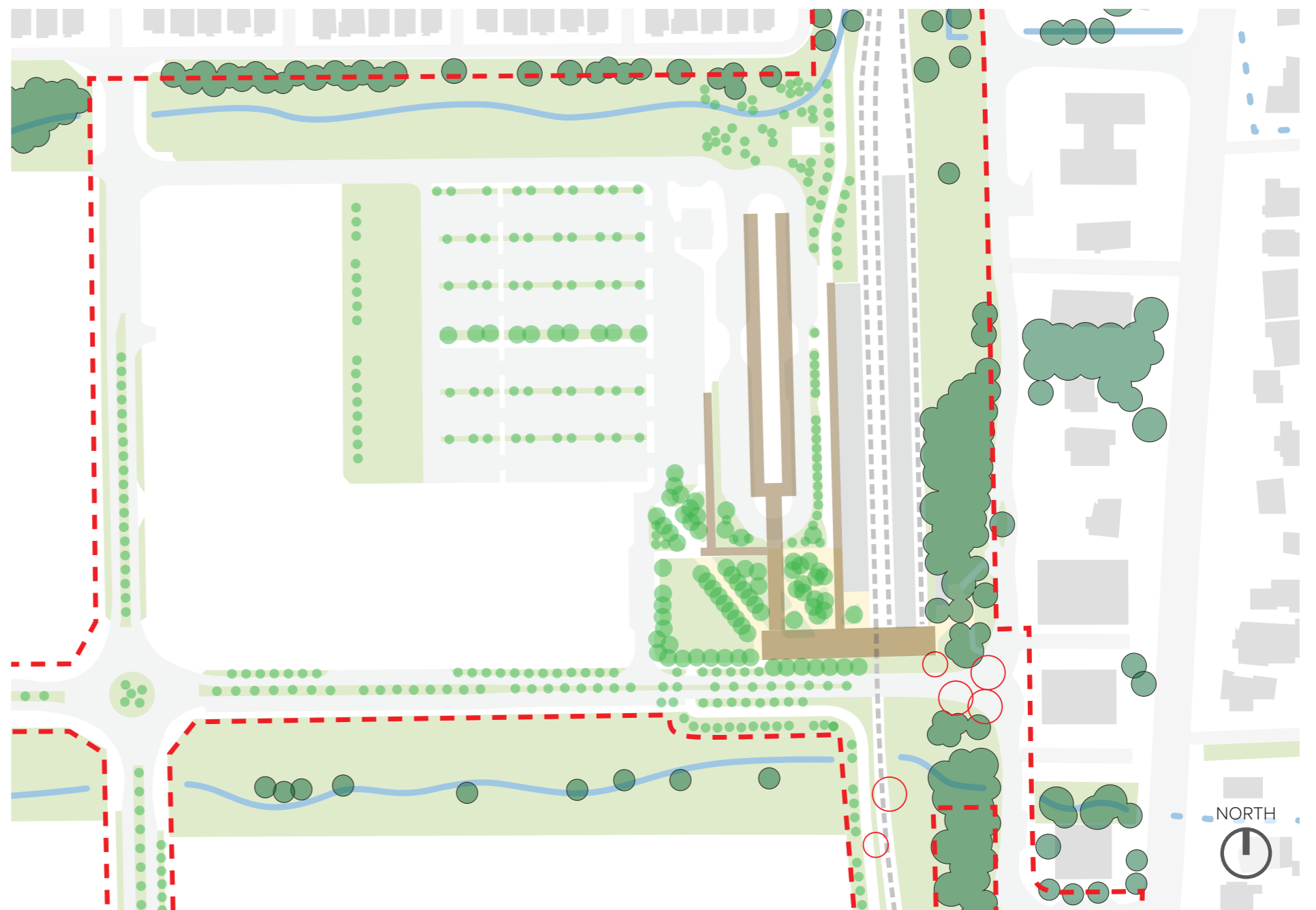


FIGURE 45. TREES AND SHADE PLAN

**RETAINING MONUMENTAL TREES**



Mature trees in rail corridor along George Street (right) to be retained, establishing the bush-like character

**WATER SENSITIVE URBAN DESIGN AROUND TREES**

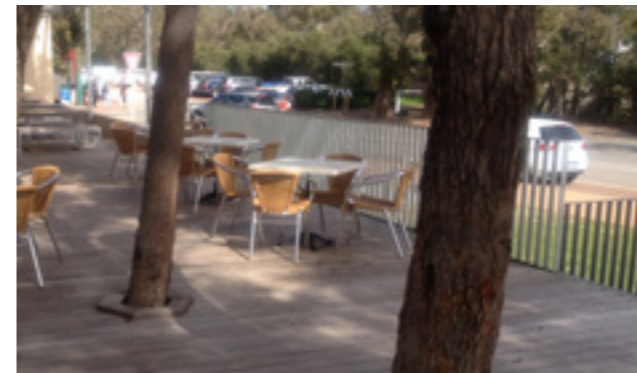


Mature trees and natural swale between George St and rail



Water Sensitive Urban Design for street trees along Pioneer Road and Blackburn Road

**OPPORTUNITIES TO FURTHER INCREASE TREE CANOPY AND REDUCE URBAN HEAT**



Alfresco on a timber deck under mature trees at Dome



Dense tree planting at car parking areas



Urban cooling by open, meandering Oakland Drain, next to The Dome



Existing rail crossing of the Oakland Drain, keeping the water open and visible (seen from George Street)

**OPPORTUNITIES TO IMPROVE GROWING CONDITIONS IN PAVED AREAS**



Parking on gravel under mature trees; example in Byford along George Street



Bardi Lane, OneOneFive Hamilton Hill, Cockburn permeable paved parking bays around new trees

# LANDSCAPE CHARACTER - HARDSCAPE

The consolidation of hardscape materials and fixture selection ensures continuity across the whole site. It takes into account the site aesthetic, the needs of the end user, and the operational and ongoing maintenance requirements.

A palette has been selected to be implemented site wide in order to complement the overall identity and feel of the Byford Rail Station. Aim is to demonstrate a relationship to both the natural landscape and historic and new town centre.

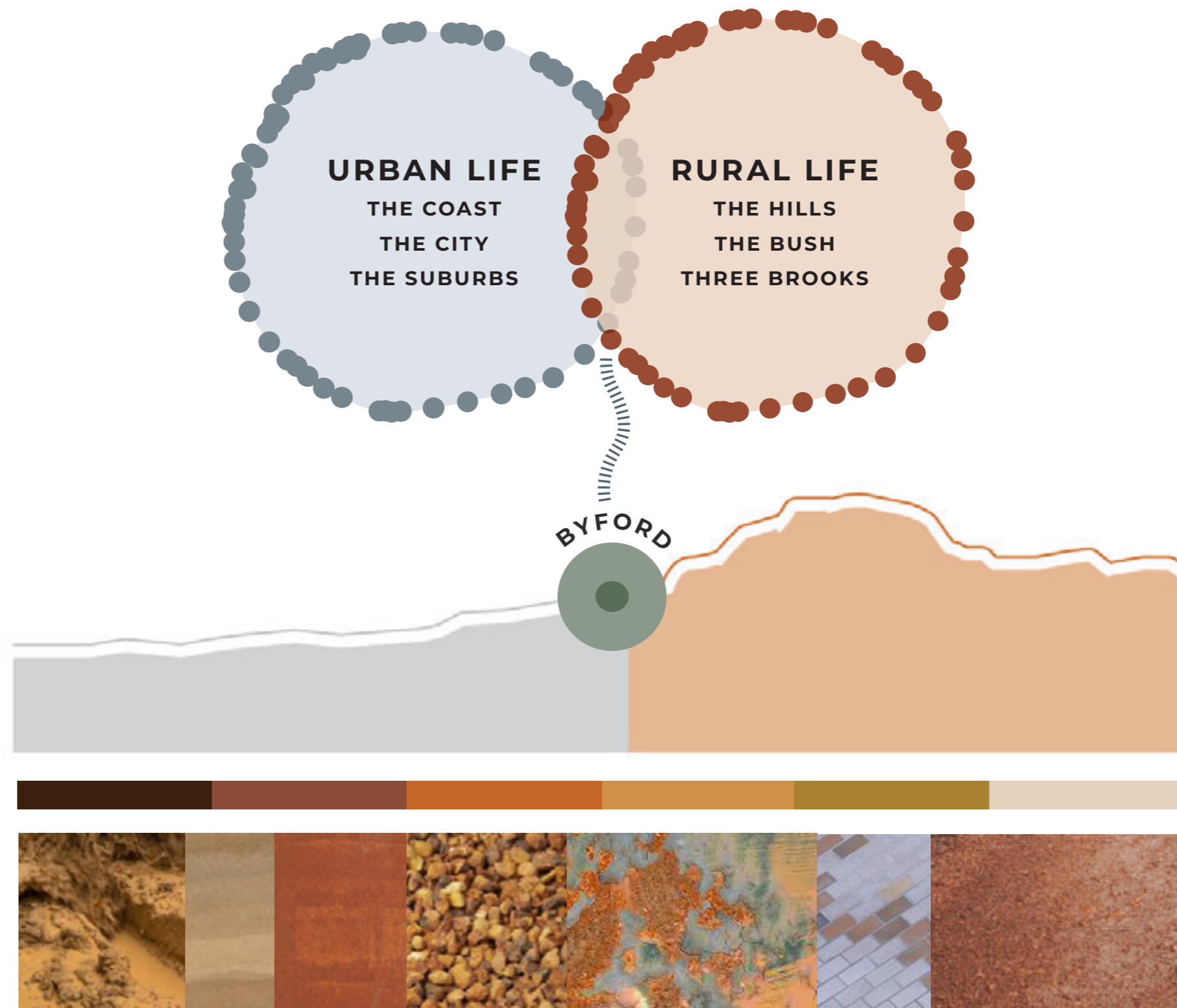
## MATERIAL PALETTE

The material palette references the location of the Byford Station being at the nexus of several edges and intersections:

- The Swan Coastal Plain and the Darling Scarp;
- The intersection of the Three Brooks that cross the rail line; and
- The Coast, City and Urban life and the Hills, Scarp and rural life.

A key theme is the meshing or intertwining of the underlying soils and geology of the Swan Coastal Plain, the Darling Scarp and Hills area. It also builds on the historic links in the area with the colour and textures of the bricks that were produced.

This 'meshing' is represented in a random pattern of brick paving that melds the traditional brick and laying style (herringbone) with a more contemporary stretcher laying style. This meshing of the historic and contemporary reflects the sites current location as the nexus of the rural and suburban zones of Perth.



## SURFACES

The material palettes reference both the underlying soils and geology of the local area, as well as the colours and textures of the bricks that were produced historically from the local area. The soils and geology are a mosaic of red gravels, yellow and brown clays and sands, and red brown laterites. The colour of the red comes from the high iron content in the soils and rock.

This mosaic is represented in a random pattern of brick paving which melds the traditional brick and laying style with a more contemporary design. This melding of the historic and contemporary reflects the sites current location as the nexus of the rural and suburban zones of Perth.

Surface materials:

- Primary pathway option – concrete unit paver with varied colour and tones with an opportunity to use recycled bricks
- Secondary pathway option - exposed aggregate concrete which reflects the broader colour palette



Pixel paving



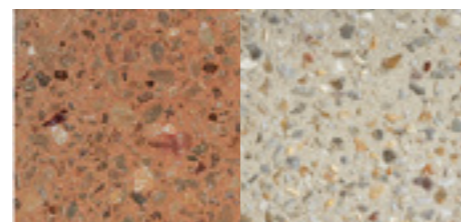
Exposed aggregate concrete



Coloured honed concrete (using recycled brick)



Cracked pea gravel



## SEATING

Opportunities for seating walls and standalone are located throughout the Byford Station landscape including along the Station Walk, in the Bush Plaza and the Play Space (to be detailed). Simple and robust seating supports activity and aids circulation.

## PLAY SPACES

The Nature Play Space seeks to provide a themed nature playground with seating and turfing areas. It is to provide an inclusive community space in the centre of the station precinct..



Nature Play



Celebrate water in landscape - misters/sensory



Colours & textures



Subtle art & story telling opportunities

# LANDSCAPE CHARACTER - SOFTSCAPE

The planting character references the 'nexus' of the Swan Coastal Plain and Darling Scarp and Hills landscape characters coming together at the station. The use of strategically placed deciduous trees reinforce the historic and contemporary character of Byford.

The use of tree species aligns with the goals within the Shire of Serpentine-Jarrahdale's Urban and Rural Forest Strategy to retain and increase trees within urban areas.

## WATER SENSITIVE URBAN DESIGN (WSUD)

Water Sensitive Urban Design (WSUD) is key to providing effective ways to minimise impacts of the rail development on waterways within the site. The site will provide treatment of storm water and overland water flow pollutants on site for treatment via vegetated swales and planting. The design and implementation of WSUD systems will be jointly coordinated with Civil, Hydrology and Landscape. These will be reflected in our design drawings noting size and volume of treatment areas, choice of filtration media and selection of specific plant species for the job.

## URBAN FOREST EDGE

The Shire of Serpentine Jarrahdale has been foremost in understanding that with a rapidly growing population and urban development there is a reduction in large areas of native vegetation and loss of private open space. The vision of the Shire's Urban Forest Strategy aims to strengthen a diverse landscape character through allocating suitable tree diversity, be proactive with landscape planning while showcasing the Shire's botanic heritage and to distinguish an expanding 'tree-change' destination from the existing Perth vernacular.



## PLANTING PALETTE

Building on the 'Bush Plaza' typology of Beenyup Station a selection of feature flowering endemic planting is utilised. The arrangement of the planting and flowering time provides a succession of colour over the seasons and reflects the indigenous 'Six Seasons' with specific plants selected to indicate the different seasons.

The selection of plant species should be prefaced with the fact there is no 'perfect' tree. The selection of either endemic (i.e. trees that are specific to a particular local area), 'native' (i.e. grow naturally in Australia), or exotic (i.e. origin outside of Australia) should be balanced with the knowledge that urban sites are radically different to the natural spaces that many endemic and native trees have evolved.

Locating the right plant, in the right location for the right reason are underpinned by the following considerations:

- higher than average temperatures from hardstand, carpark and buildings;
- sightlines, views and safety for users;
- mature size of planting;
- less permeable surfaces and compacted soils and root disturbance from excavation and underground services;
- canopy shading and solar requirements;
- maintenance required e.g. tree litter, pruning, root management etc.
- longevity and structural integrity of plant species;
- spaces above and below ground for plant establishment;
- aesthetic and 'sense of place' selections;
- endemism of species where suitable and appropriate; and
- clearance for vehicles, pedestrians and cyclists.



# INVESTMENT LEVELS

Not every area in the public realm of the station precinct needs the same level of investment.

Some areas are more important for people than others; comparable to somebody's house, where its residents spend more attention to the living room than the laundry room. Important areas present pride, showcase the place, and are used more intensely by people, both regular users and visitors. Their maintenance levels are higher too. Other areas also need to function well, but can do with less ambition. The investment levels relate to budgets per square metre for capital works and for maintenance.

In general, four investment levels can be formulated for urban areas – PREMIUM, HIGH QUALITY, STANDARD and BASIC. For the station precincts, the 'premium' level might be too ambitious. The other three levels are generally applicable and the locations within the Byford Station Precinct that each should be applied to is as follows:

- Level 2 – High Quality: Welcome Place
- Level 3 – Standard: Streets, parks and bus transfer station
- Level 4 – Basic: Car parking

## NOTES ON SQUARE METRE RATES

The rates are to be used as benchmark indicators and can be used for budget planning of urban realm spaces. Using the rates in relation to competitive market bids is highly disputable, since the quality of the design and finishes costed in those bids might not be the comparable.

The square metre rates indicated in this section are benchmark rates for the construction of all surface finished – hardscape and softscape, including street furniture. Demolition and site preparation works, utility services, architectural features, preliminaries, professional fees, contingencies and escalations are not included.

Various factors have a direct influence on the square metre rates. The ratio between hardscape and softscape is an obvious one. A city park with lots of turf is cheaper to construct than a city square with the same importance in the city's users. Other important factors are the special features; the complexity of custom-made elements (water features, public art, feature lighting, etc.) has a big impact on the square metre rate.



## LEVEL 2 – HIGH QUALITY

**\$400–\$500 / SQM**

For instance: • Town Plaza, Albany• Curtin Main Street, Curtin University Bentley Campus• Cecil Avenue, Canning City Centre

Typically, finishes are higher quality unit pavers, in-situ concrete with exposed aggregate or intricate patterning. Seating and retaining walls in concrete finish with some feature details. Selection of high-quality off-the-shelf furniture elements. Select areas with feature lighting, shade structures, lighting and public art. Extensive soil improvement, medium density planting (min 140mm). Generally 200lt to 500lt trees. Permanent irrigation to all.



## LEVEL 3 – STANDARD

**\$200–\$300 / SQM**

For instance: • The Parkway, Ellenbrook• Scarborough Beach Road, Mount Hawthorn• Curtin Guild Court, Curtin University• Seppings Parade Plaza, Lakelands Shopping Centre

Typical finishes are in-situ concrete, black/red asphalt and small size basic concrete unit pavers for drivable spaces – brick paver and unit paver footpaths, limited patterning. Off-the-shelf street furniture, no retaining wall and standard lighting. A basic level of soil improvement to all garden areas. A medium density 140mm planting size or high-density tubestock. Generally 100lt to 200lt trees and limited rolled on turf areas – permanent irrigation to all.



## LEVEL 4 – BASIC

**\$100–\$150 / SQM**

For instance: • Standard suburban street• Basic arterial road• Car parks





Typically treatments are black asphalt for drivable surfaces; grey concrete extruded kerbing, broomed concrete footpaths – no street furniture besides incidental street light. Use of on-site soil, limited soil improvement, tube stock size planting, mulch treatment and turf seasonally mowed only. Trees of 45lt to 100lt. Permanent irrigation to trees only and tubestock to be winter planted.

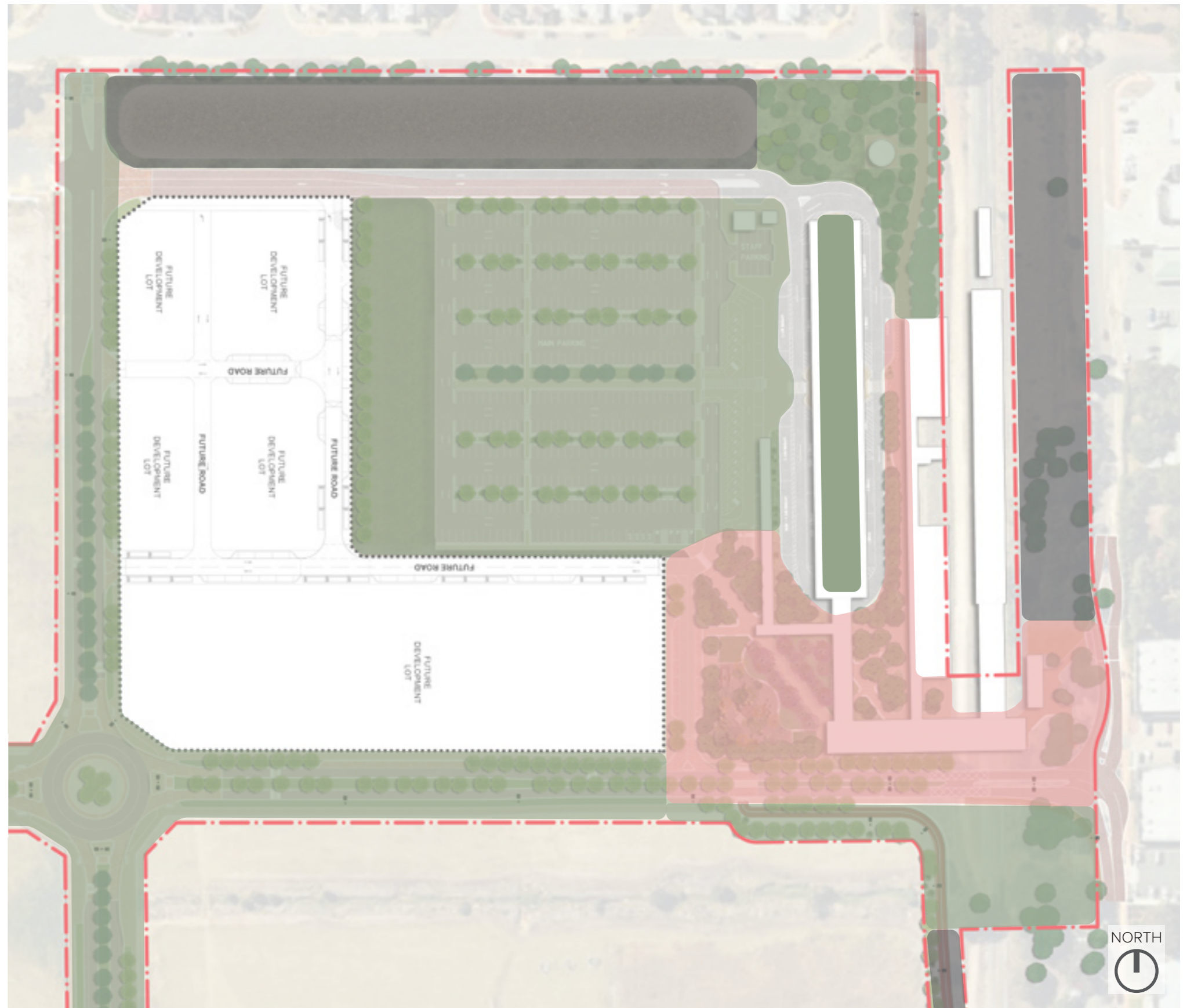
**TABLE 6. INVESTMENT LEVELS FOR PUBLIC REALM**

Source: Byford Rail Extension – Concept Design, 'Byford Station Precinct Preliminary Place Plan', WSP/PLACE Laboratory (2021) (BRE-MNO-WSP-PL-RPT-0004)



**LEGEND**

-  Landscape Extent of Works
-  Level 2 - High Quality
-  Level 3 - Standard
-  Level 4 - Basic



**FIGURE 46. INVESTMENT LEVELS PLAN**



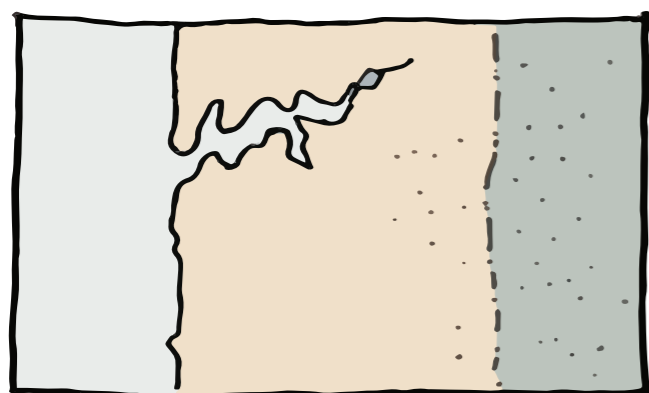


# 08

## ARCHITECTURE

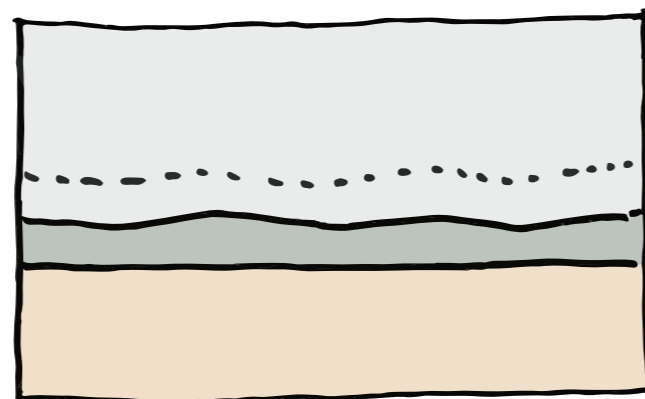
LINE-WIDE DESIGN NARRATIVE	90
STATION DESIGN	92
STATION AMENITIES	94
FORMAL WAYFINDING	95
ARTIST IMPRESSIONS	96

# LINE-WIDE DESIGN NARRATIVE



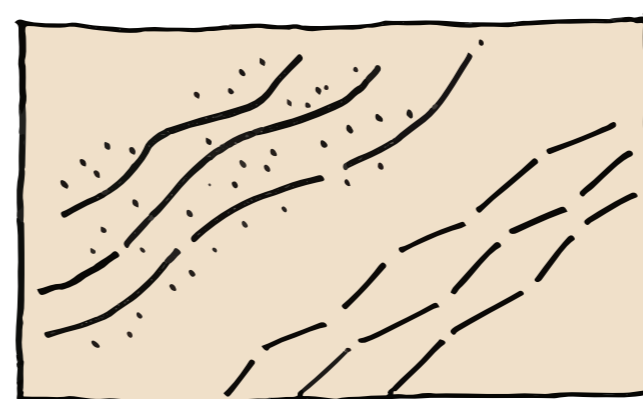
## DARLING SCARP

The Darling Scarp forms a distinctive presence in the Perth landscape. This low escarpment running north-south to the east of the Swan Coastal Plain leaves a powerful geological mark which has shaped by wind and water over millennia the entire area. The design takes inspiration from this natural phenomenon using the themes of horizontal lines and water which form part of the design narrative.



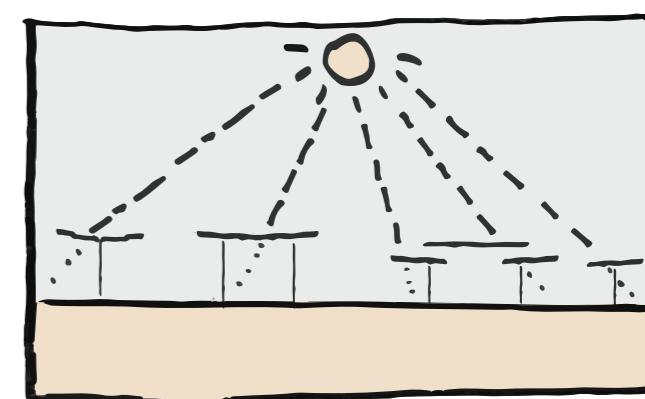
## HORIZONTAL LINES

The characteristics of Western Australia especially around south-east region is dictated by the strong horizontality of lines. This sense of vastness is breathtaking, and the linearity is visible looking at the horizon where the sky meets the land. This horizontality is also celebrated by the layers of sedimentary formation showing a variety of different geological layers. Our Station Precincts design reference this beautiful natural formation celebrating the horizontal lines of the Station buildings and the elevated rail and platform canopy.



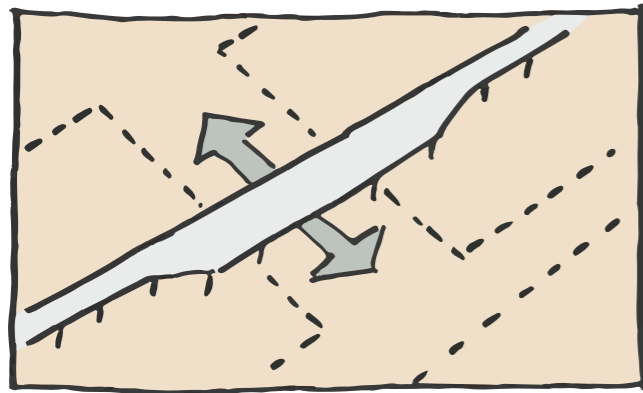
## LANDSCAPE AND PATTERN

The natural pattern of the landscape informs the Station architecture and surrounding public realm. The existing trees in the foothills of the Darling Scarp, the rock formation, the water and wind, all form this natural pattern where our proposed design borrows those lines for the nature, and in return it applies that to shape the architecture, the paving, the garden beds, and the selection of the materials throughout the site.



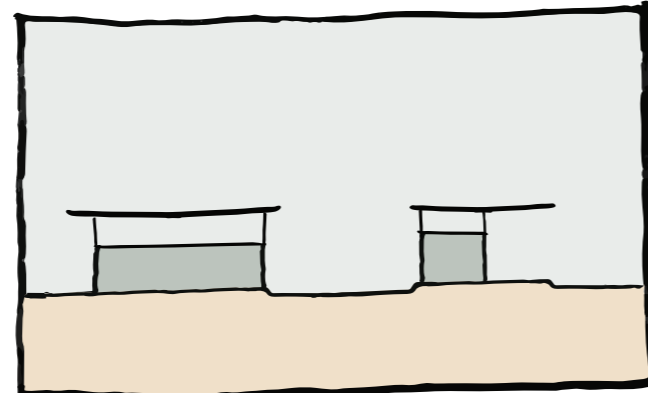
## SHADE & LIGHT

Stations are designed to provide a gentle transition between internal and often bright and hot external conditions. The use of the viaduct for the elevated rail option offers the opportunity for a logical design approach, e.g. providing shade during the hot summer days by leveraging the structure above. The natural light will be filtering throughout the station from the platform canopy to the concourse level.



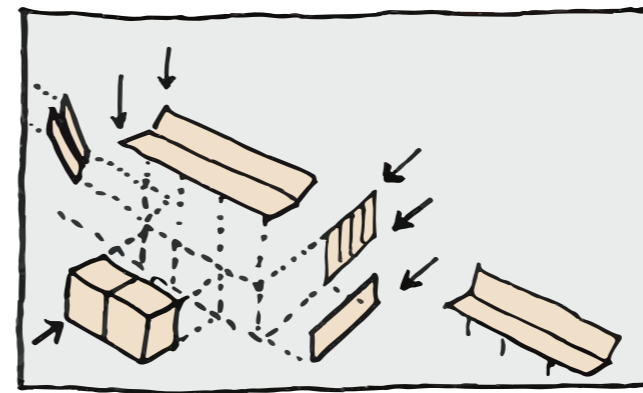
### ELEVATED RAIL TRANSITION

The important aspect of the design is the transition between the rail element and the public realm. This transition is clearly indicated on our proposed at-grade rail station at Byford by using a clear line of sight, enhanced by the linear canopy to the station entry to direct customers to the station entry. This intuitive wayfinding approach has been also adopted for the elevated rail option, where the journey from the platform to concourse level below is intuitive and straight-forward. The use of open facade also provides the station users an inner-outer visual link to navigate easily through the building.



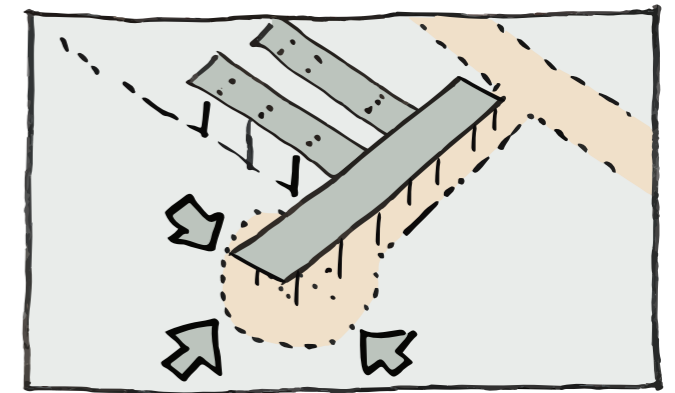
### MODULAR APPROACH

The basis of our proposed design utilises modular elements for both stations. Canopies, stairs, screens, louvers, and cladding elements are all designed to be modular and yet provide a unique and flexible configuration for each station and precinct. Constructibility sequence was also taken into considerations by using a symmetrical approach, where the station 'pods' are designed to be constructed in sequence without a particular order, that allows flexibility during construction phase.



### KIT OF PARTS DFMA

DFMA stands for Design for Manufacturing and Assembly. Our design utilises this method to optimise the use of a kit of parts approach to balance line-wide communality with unique responses for each precinct.



### PLACE MAKING AND COMMUNITY

Station and precincts are configured to allow connectivity throughout the site in response to the Metronet vision for the BRE project. The importance of linking the east and west side previously cut off by the rail corridor is paramount, as well as removing all level crossings by providing a safer and quality public realm. The place making aspect is very important including the vision of future development across the precinct to become a the civic community hub for the future of Armadale and Byford.

# STATION DESIGN

## PRECINCT PRINCIPLES

The station shall be an open, porous architecture with clear and cohesive movement, while being integrated with the fluid and natural landscape.



01 RESPONSIVE TO COUNTRY AND PLACE OF BYFORD



02 AUSTRALIAN VERANDA THE OUTDOOR LOBBY



03 ENHANCING AND CELEBRATING NATURAL ECOLOGY AS LEGACY



04 CLEAR AND COHESIVE PRECINCT

## EXPRESSION PRINCIPLES

The station shall be identifiable Byford in its architectural expression.



01 AUSTRALIAN VERNACULAR



02 BRICKWORKS, RAILWAY HERITAGE, FARM LAND



03 ROBUST, SIMPLISTIC AND UNIFYING COMPOSITIONS



04 A SYSTEMATIC CONSTRUCTION

## ASSEMBLY

At Byford At grade station, our design has been selecting materials and the main station components using the same kit of parts approach.

Locally sourced materials to shorten the supply chain and reduce procurement risks. Where PTA guidelines identify an element as needing to be of a particular material or style then this will be incorporated into the kit of parts.

The diagram shows the main kit of parts component that forms the station design at Byford Station at grade rail option, that includes:

- Canopies
- Structural components
- Platforms
- Station accommodation (toilets, offices, station amenities, BoH areas)

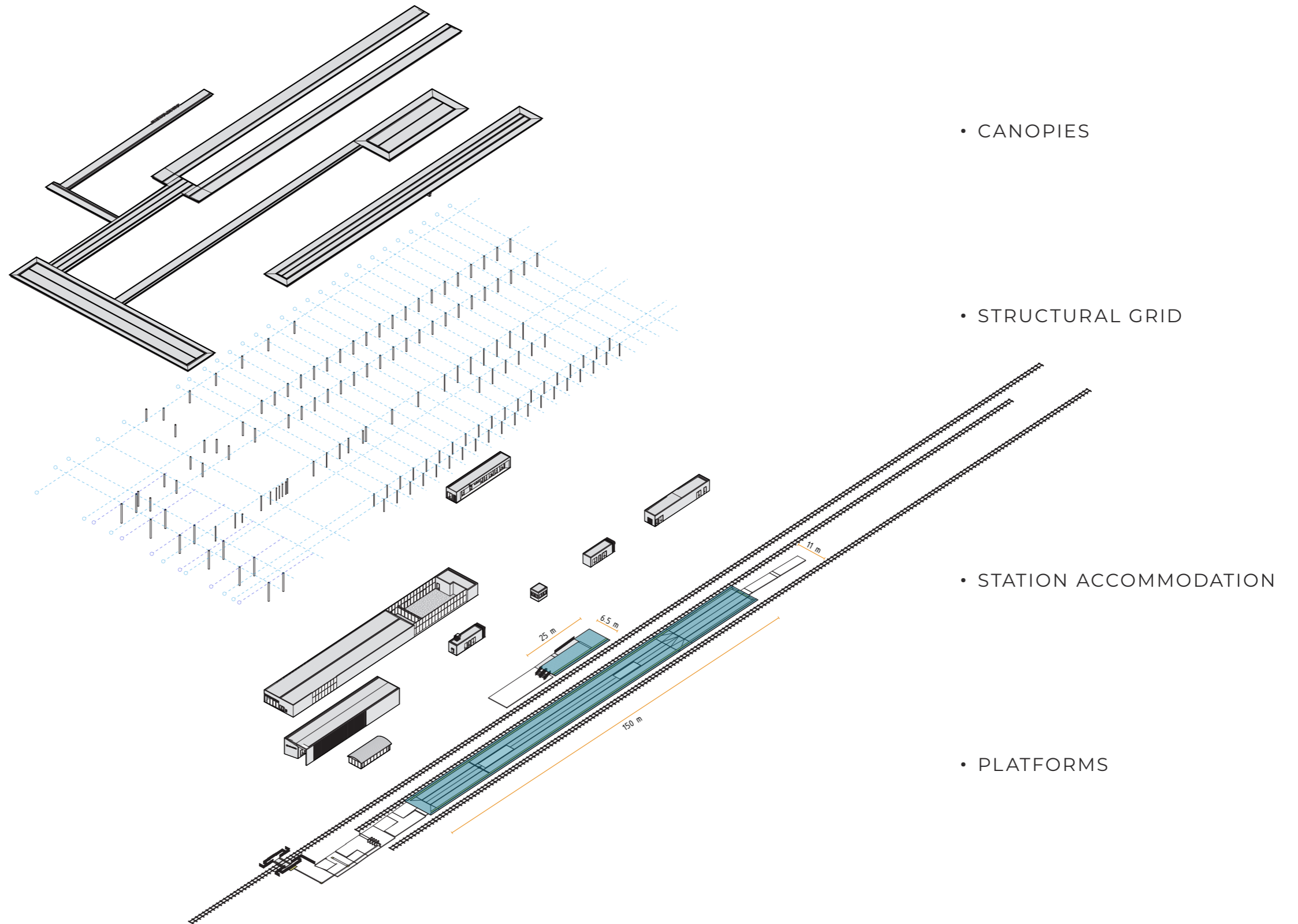
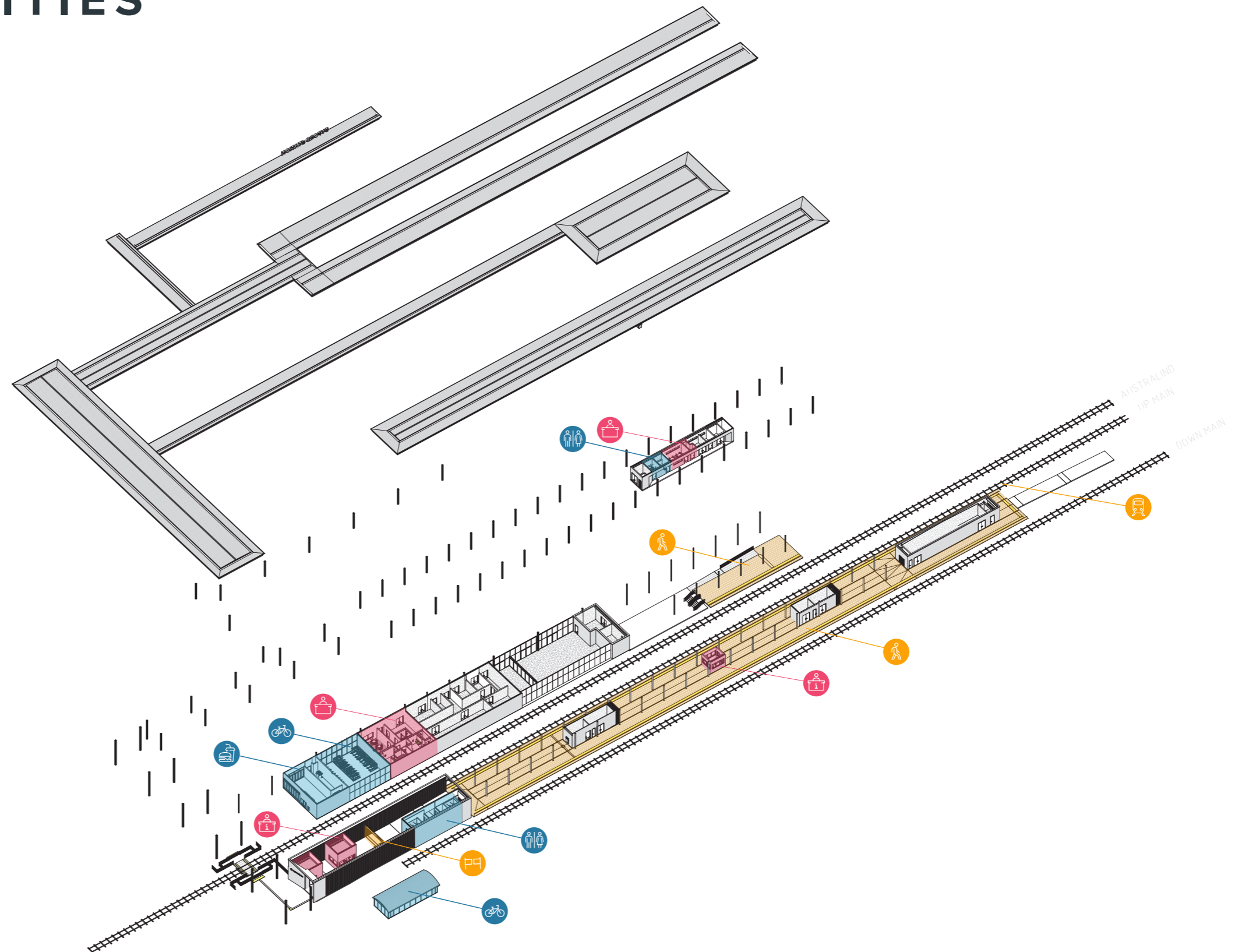


FIGURE 47. BYFORD STATION - ASSEMBLY

# STATION AMENITIES

The station accommodation layout is linear and develops along two main buildings components: One is located at the Station west side, facing the public plaza and the other building is located at the entry and adjacent to the platform. Also here the design has utilised the idea of station pods which accommodate the SWTC and Station Accommodation Schedule requirements.

The Back-of-House (BoH) area and PTA staff amenity rooms, as well as the bicycle store and kiosk are located on the west pod, whilst the CSO and the gatelines, ticket machines and public amenities including toilets and drinking fountain, are on the east pod adjacent to the platform.



## LEGEND











- |  |   |
|--|---|
|  Train Lines        |  Passenger Information |
|  Platforms          |  Staff Areas           |
|  Entry / Fare Gates |  Kiosk                 |
|  Future Escalators  |  Amenities             |
|  Future Stairs      |  Bike Shelter          |

FIGURE 48. BYFORD STATION – AMENITIES

# FORMAL WAYFINDING

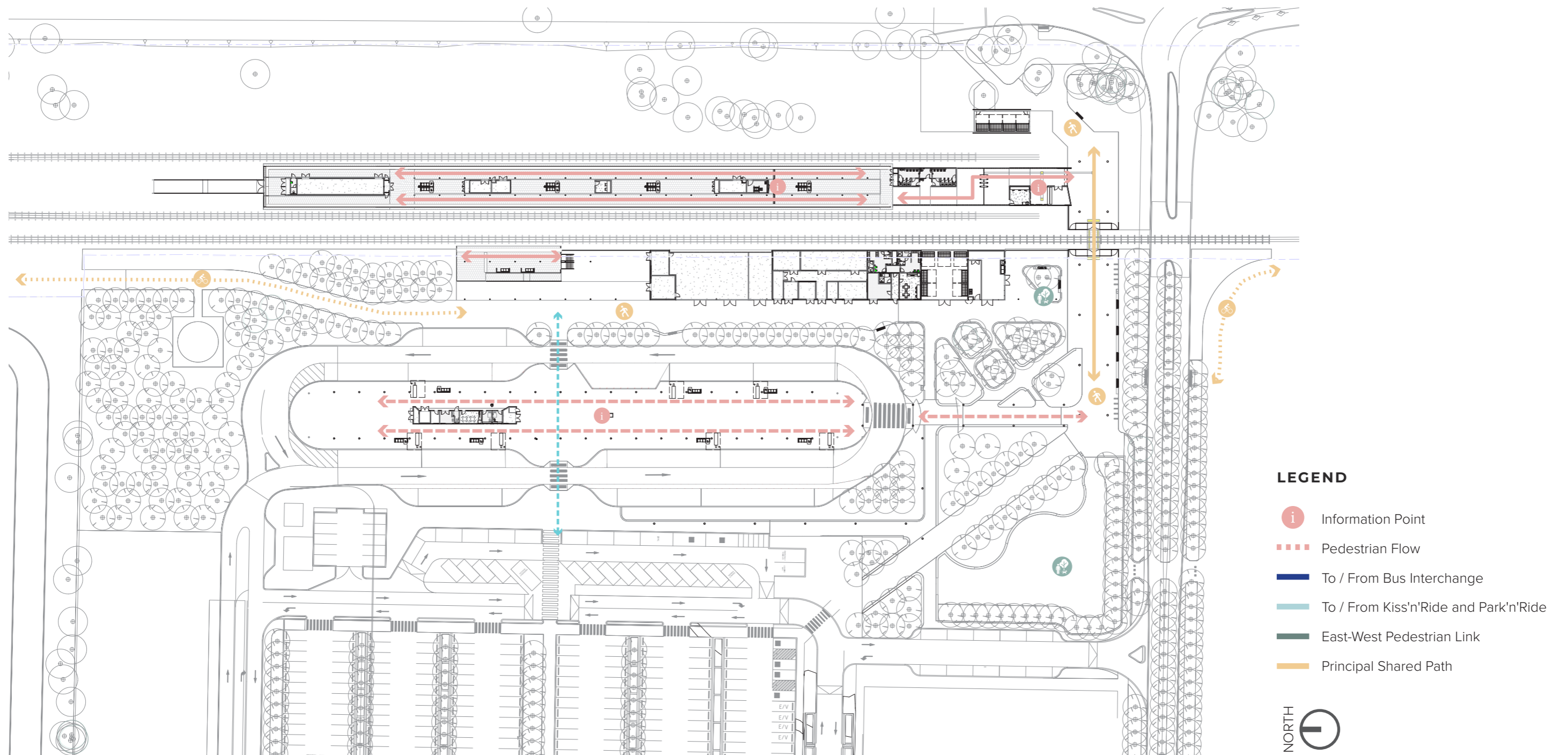


FIGURE 49. BYFORD STATION - FORMAL WAYFINDING



# ARTIST IMPRESSIONS

## CLARA STREET WEST

New east-west street crossing the Australind line, connecting the eastern and western town centre.

## PUBLIC ART

Integrated in pavement and kerbs, adding narrative to the Welcome Place and assisting with informal wayfinding.

## BUSH PLAZA

Direct views to the Bush Plaza meeting place, with kiosk and seating.

## METROPOLITAN PLATFORM ENTRANCE

Entrance to the Metropolitan platforms, with passenger information and patron toilets behind the fare gates.

## BICYCLE SHELTER

Second bicycle storage on the eastern side, easily accessible from George Street.



FIGURE 50. ARTIST IMPRESSION – GEORGE STREET ENTRANCE

**CLARA STREET WEST**

New street connecting the eastern and western town centre. Trees in this impression are indicated at their mature size.

**PRINCIPAL SHARED PATH**

New PSP towards Mundijong in the south. Also the pedestrian and cycle connection between the train station and the western town centre.

**STATION CANOPY**

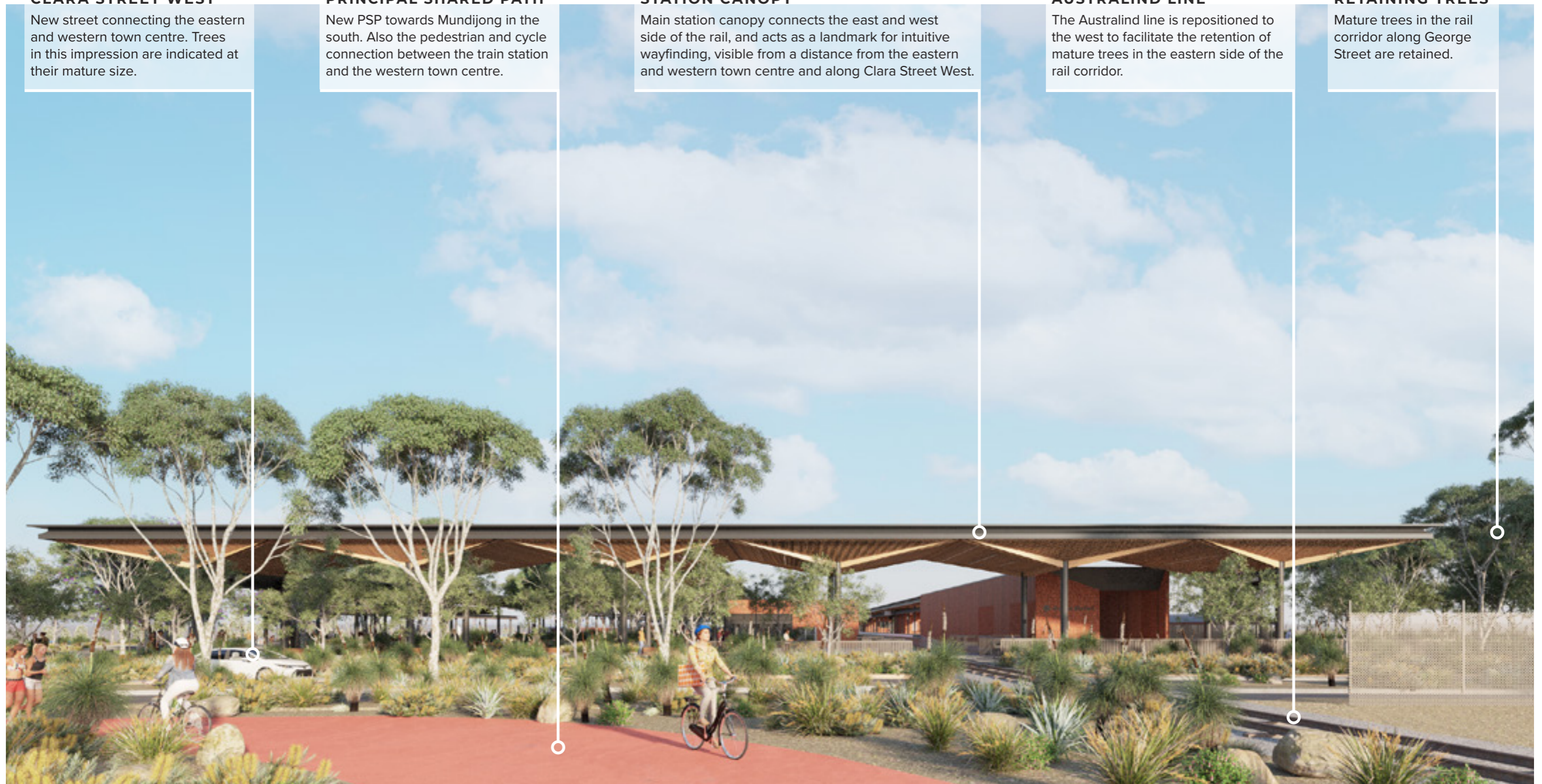
Main station canopy connects the east and west side of the rail, and acts as a landmark for intuitive wayfinding, visible from a distance from the eastern and western town centre and along Clara Street West.

**AUSTRALIND LINE**

The Australind line is repositioned to the west to facilitate the retention of mature trees in the eastern side of the rail corridor.

**RETAINING TREES**

Mature trees in the rail corridor along George Street are retained.



**FIGURE 51. ARTIST IMPRESSION – VIEW FROM THE SOUTH**



**BICYCLE STORAGE**

Secured bicycle storage at the Welcome Place, directly accessible from the PSP to Armadale.

**KIOSK**

Food and beverage outlet, providing amenity to activate the Bush Plaza.

**NATIVE PLANTING**

Plant beds with native planting and wild flowers, creating a bush atmosphere.

**SEATING WALLS**

Abundance of seating along the paths, supporting opportunities to sit and rest.

**SHADE CANOPY**

Shaded walkway towards the bus station, K'n'R and P'n'R car park.

**FIGURE 52. ARTIST IMPRESSION - BUSH PLAZA**



**SHADE CANOPY**

Shaded walkway, alternative route to the K'n'R and P'n'R car park.

**NATIVE PLANTING**

Plant beds with native planting and wild flowers, creating a bush atmosphere.

**THE GREEN**

Lawn on both sides of the footpath, providing space to sit, lay down, picnic and relax.

**WIDE FOOTPATH**

Wide walkway through the Welcome Garden creates a direct route between the train station and the K'n'R and P'n'R car park.

**NATURE PLAY**

Family-oriented nature play, providing a new amenity to the Byford Town Centre, and supporting the bush character of the station precinct.

**PLAZA STREET**

Shared street adjoining the nature play and lawn, with space, power and water for events and food trucks.

**FIGURE 53. ARTIST IMPRESSION - WELCOME GARDENS**



# 09

## PUBLIC ART

PUBLIC ART PLAN	102
METRONET'S TYPES OF PUBLIC ART	103
PUBLIC ART STRATEGY ALIGNMENT	104
PUBLIC ART IMPLEMENTATION	105
PUBLIC ART OPPORTUNITIES	106
CURATORIAL RATIONALE	107

# PUBLIC ART PLAN

This Public Art Plan (PAP) identifies high-level opportunities that will be further developed in the next stage of works for the Byford Rail Extension. APPARATUS prepared the public art content contained within this FPP.

The PAP will be developed in close collaboration with all related consultancy disciplines, METRONET and the Office of the Government Architect. This includes alignment with METRONET's commitments to aboriginal and non-aboriginal engagement through the process. The PAP will be further developed in the next stage of program works, including wider consultation, such as the City of Armadale and the Shire of Serpentine Jarrahdale and other stakeholders who may be involved with public art commissions as part of works within the greater BRE precinct areas. As works progress, concepts may change and creative consultants may consider alternative opportunities and ideas.

The BRE Station Public Art Plan will guide the delivery of creative interventions undertaken as part of the BRE project. The purpose of the Public Art Plan is to:

- Provide cultural and creative considerations to inform contractors delivering design and construction activities associated with the BRE project
- Confirm the PTA and METRONET expectations for integration of creative practice into the planning and delivery of the BRE project
- Provide a curatorial framework to assist contractors and delivery partners in the preparation of pricing for artwork commissions
- Ensure consistency across the whole creative program
- Ensure that the design and delivery of permanent artworks are of consistently high quality
- Collate project specifics on art, process and funding into one document

It is envisioned that the BRE Public Art Plan will be used by artists, architects, art coordinators, landscape architects, project managers, contractors, procurement officers, community groups, and developers as part of the Byford Rail Extension program of works.



Bina Parkland Artworks, Arterial Design, 2021. Photo: Jessica Wyld

# METRONET'S TYPES OF PUBLIC ART

Public art has a broad scope with many possibilities for the form, function, materials and degree of permanency of the artwork, and how it is located and/or integrated into its setting. The DLGSC's Public Art Commissioning Guidelines define five main categories of public art as follows, recognising that the boundaries between the art types often overlap.



**STAND ALONE ART** is three dimensional and free-standing (rather than embedded into the structure of a building or built space).



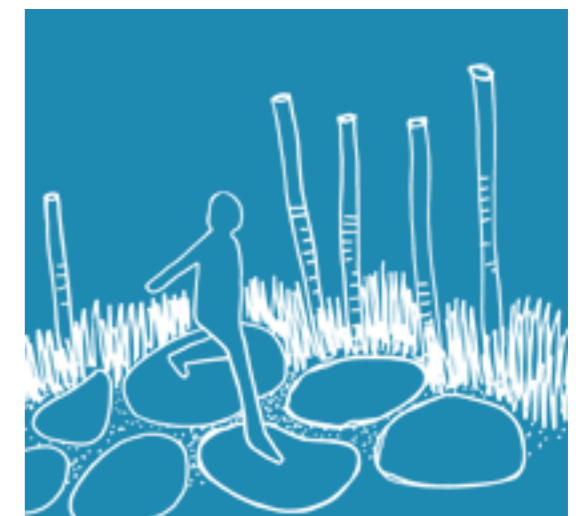
**INTEGRATED ART** is integrated into a building, structure, or built space, such as ceilings, walls, glazing, screens and floors, landscaping and paving. The work has the potential to span both the interior and exterior spaces of a built structure. Integrated artwork may also assist in defining or separating space.



**TEMPORARY ART** is non-permanent work that may include performance art, dance and temporary installations.



**APPLIED ART** is applied to an interior or exterior surface. This type can include commissioned paintings, tapestries and murals.



**INSTALLATION ART** is where the artwork and the site are integral to each other. The artwork could be comprised of a number of elements, but the ensemble may be viewed as a whole. The space may be created with a particular work in mind, or the artist may respond to a given space. In addition, installation art may include land art.

Source: Byford Rail Extension – Concept Design, 'Byford Station Precinct Preliminary Place Plan', WSP/PLACE Laboratory (2021) (BRE-MNO-WSP-PL-RPT-0004)



# PUBLIC ART STRATEGY ALIGNMENT

The METRONET Public Art Strategy guides the delivery of public art, drawing inspiration from Perth's Aboriginal and non-Aboriginal local culture, history, landscape and place. The Strategy is used by all stakeholders involved in developing public art for the Armadale and Byford Station Precincts from artists, art coordinators, architects, landscape architects, project managers, contractors, procurement officers, community groups, developers, local government authorities and state government agencies.

## PUBLIC ART STRATEGY THEMES

METRONET's direction is that public art should respond to the overarching themes - 'Our Pathways' - exploring sub themes 'Connection' and 'Place'. These themes are expanded into four further sub-themes, below. These overarching themes have guided the development of the Sense of Place Statement, Key Themes and Stories.



## METRONET PUBLIC ART PRINCIPLES

- 

**PLACEMAKING**  
Public art contributes to placemaking and interpretation. It can aid the understanding of the area's heritage, provide new interpretations and meaning or how people use a space.
- 

**SITE SPECIFIC**  
Public art is designed specifically for the site and is responsive to the site context – its surrounds, its use and users – and reflects the relevant precinct art themes.
- 

**SCALE TO FIT**  
The scale of artwork is to be consistent with the artwork intent. Artwork scale also needs to be responsive to the site context, such as the surrounding landscape, buildings and pedestrian circulation.
- 

**UNIVERSAL ACCESSIBILITY**  
Public art is accessible to all members of the community, irrespective of their age, abilities or cultural background.
- 

**ATTRACTOR**  
Public art can be an attractor for visitors and tourists, particularly for places with landmark artworks or seasonal art programs.
- 

**SUSTAINABLE**  
Public art is designed to consider key environmental, social and economic opportunities for both procurement/delivery and ongoing function and use.
- 

**WELL CONSIDERED & MANAGED**  
Public art is designed and constructed in accordance with best practice, risk and asset management. It is designed with consideration of public safety, straightforward and low-cost maintenance, resistance to vandalism, and constructed with robustness appropriate for the lifespan of the artwork.

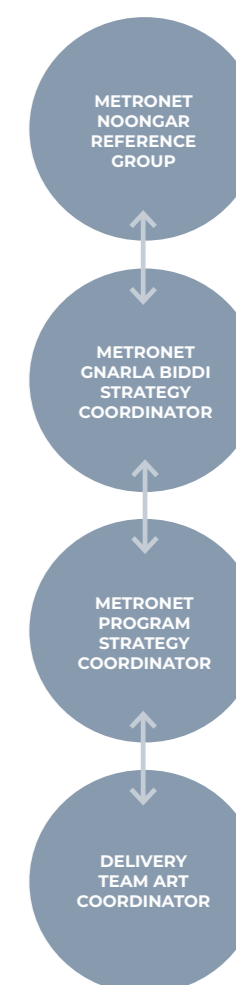
## GNARLA BIDDI STRATEGY

The METRONET Aboriginal Engagement Strategy outlines the WA State Government commitment to embed genuine engagement with the Aboriginal community across the METRONET program. It recognises that appropriate and authentic Aboriginal engagement can contribute to the delivery of enhanced place and project delivery outcomes, whilst also achieving significant community, social and economic benefits through cultural contribution and participation.

The METRONET Gnarla Biddi Strategy and Framework is designed to achieve three outcomes:

1. Noongar and other Aboriginal people working on METRONET projects.
2. Noongar and other Aboriginal people delivering METRONET projects.
3. Noongar Culture being acknowledged and recognised in what METRONET does day-to-day, and in what METRONET designs and builds.

Opportunities for Noongar culture to be embedded into the station through public art and Noongar artist engagement identified in the Public Art Plan. These opportunities are indicative, pending consultation with the METRONET Noongar Reference Group via the METRONET Gnarla Biddi Strategy Coordinator.



# PUBLIC ART IMPLEMENTATION

## LOCAL GOVERNMENT CONTEXT

### SHIRE OF SERPENTINE JARRAHDALE LOCAL PLANNING POLICY 1.6 PUBLIC ART (2018)

The Shire of Serpentine Jarrahdale Local Planning Policy No. 1.6 is for the Provision of Public Art in Development Proposals. The objectives of this policy are:

- Create artworks in public spaces that are site specific, meaningful and integrated into built and natural forms within the Shire.
- Enhance public enjoyment, engagement and understanding of places through the integration of public art, thereby enhancing sense of place.
- Enhance the appearance, character and value of buildings and places through the inclusion of high quality public art.
- Establish a clear and equitable system for the provision of public art in the development process.



### SHIRE OF SERPENTINE JARRAHDALE DRAFT MASTER PLAN FOR THE BYFORD TOWN CENTRE CIVIC SITE (URBIS 2022)

In May 2022 the Shire of Serpentine Jarrahdale approved the draft Master Plan for the Byford Town Centre Civic Site. This masterplan was prepared to establish fundamental design principles for the future development of the area and its civic presence.

The plan was also prepared to test building volumes and arrangements and was provide for community feedback and consultation.

The masterplan is an important component of the future aspirations for the Byford City centre and covers a vast area north of Blackburn Avenue. It also includes the civic precinct adjacent to the new Byford Metronet Station and existing railway which feeds into the periphery of the new Byford Station precinct.



## PUBLIC ART DELIVERY

To deliver the Project Public Art Plan, the FPP identifies themes and approaches and inspires the project's overall design and delivery, ensuring connectivity with place and community. The delivery team will engage a public art coordinator/team with demonstrated experience in managing public art projects, who will work collaboratively with the delivery team and the METRONET Program Strategy Coordinator. Together, they will identify public art projects for the METRONET delivered station buildings, associated infrastructure and public realm in consultation with relevant stakeholders.



# PUBLIC ART OPPORTUNITIES

## OPPORTUNITIES

These opportunities are considered appropriate for Byford Station precinct and Larson Road pedestrian bridge.

The areas indicated on the plans below are the zones to be considered for the implementation of the specific public art opportunity or additional recommendation. It is not the intent that the whole area will be covered with public art.

### 1 PLACE ACTIVATION + BIDDI (COMPLEX)

GROUND PLANE TREATMENT + INTEGRATED

Public Realm activation applies to ground paving, fixing furniture elements and landscape features. (Locations on the plan are indicative.)

### 2 PLACE ACTIVATION + PEDESTRIAN BRIDGE LARSEN ROAD

INTEGRATED + FUNCTIONAL

The artwork treatment would be located on the western end of the new pedestrian bridge. A number of surface treatments could be applied to the bridge surfaces to embed public art into these bridges creating relief and pedestrian engagement.

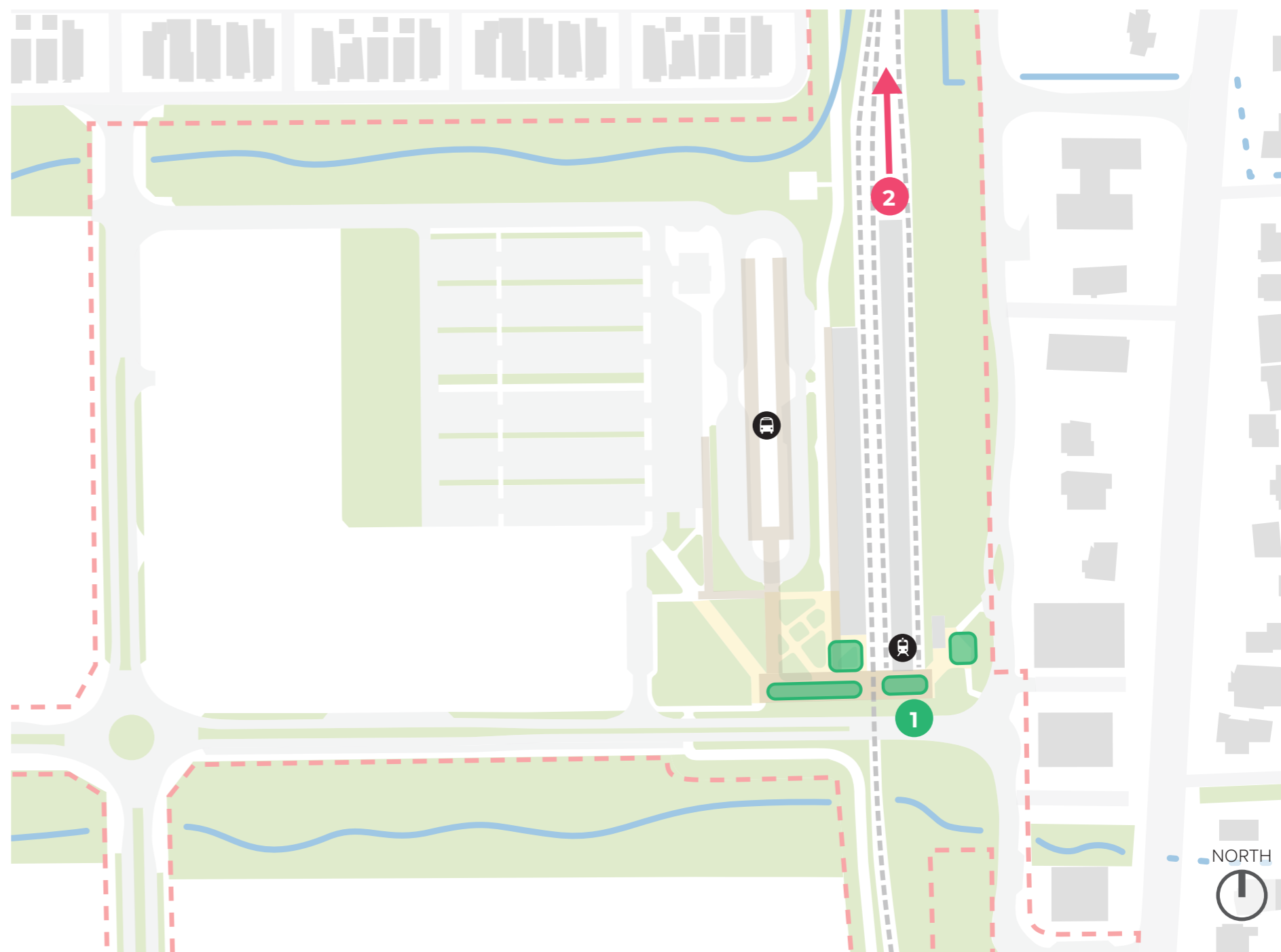


FIGURE 54. PUBLIC ART OPPORTUNITIES PLAN

# CURATORIAL RATIONALE

The Public Art Plan was developed with three things in mind:

- the specific considerations for planning public art for public transport rail infrastructure; and
- developing a unique experience that responds to the Sense of Place Statement; and
- the idea of the Byford Rail Extension being a place of connections.

The Byford Rail Extension project is sited at the nexus of several edges and intersections:

- the Swan Coastal Plain and the Darling Scarp;
- the intersection of the Three Brooks that cross the rail line; and
- the Coast, City and Urban life and the Hills, Scarp and rural life.

All of the artworks recommended for the Byford Rail Extension are embedded into the station for the enjoyment of all station users.

The Public Art Plan ensures and alignment with the METRONET Public Art Strategy by recommending a diversity of artwork types and artwork approaches and a procurement methodology that involves working with the local communities. The three key considerations important to the planning of public art for public transport rail infrastructure are:

- limitations;
- considerations; and
- opportunities.

## LIMITATIONS

### FUNCTION FIRST

- Priority of the project is building transport infrastructure.
- Public Art Program should enhance the asset without complications
- Opportunities should be planned to work with the critical path

## CONSIDERATIONS

### PROGRAM

- Planned to ensure no interference with the project critical path.

### INTEGRATED

- Durable, robust and zero to low maintenance.
- Planned, designed and built to be unsouvenirable.

### SUSTAINABLE

- Developed in concert with the community, for the community.
- Designed to be pro-social - evoke a sense of pride and identity.
- Planned to use sustainable materials and production techniques as much as possible.

## OPPORTUNITIES

### INTEGRATED

- Opportunities that can be retro fitted should be considered priority projects.
- Opportunities that won't disappear if the design changes should be considered – public art integrated into 'must have' station elements.
- Elements that might be included are screens, glazing, the ground plane, seating, bus shelters and canopies, lighting, and other built form integrated design elements.



Tikkurila Daycare; Graphic Concrete

# 1 PLACE ACTIVATION + BIDDI (COMPLEX)

GROUND PLANE TREATMENT + INTEGRATED

The Public realm activation and Bididi is the commencement of the kerb to platform carriage narrative. Artwork elements drawn from the themes and translated in text and imagery will be embedded or etched into the pathways leading station users along a path of discovery as they travel on foot to the station.

Artist employed to work in collaboration with the public realm design team to develop a contemporary expression of the six seasons within the landscape design. The public realm design will work in concert with the seasons for instance during Makuru, areas may be designed specifically to allow the temporary pooling of rainwater, which would then safely drain.

## OPPORTUNITY

### WATER

Landscape elements and connections to the function of water through the seasons. This may include the natural collection of water in winter.

### APPLIED

Elements applied onto the built landscape design materials.

### INTEGRATED

Elements applied or inset into the built landscape design materials or Small sculptural 3D integrated elements to be embedded into the landscape design so they can not be easily removed.

## ROLE AND FUNCTION

- Enhance sense of place by expressing the local landscape within the public realm.
- Be integrated into and accentuate the public realm design.
- Destination experience for pedestrians.
- Assisting with way finding.
- Enrich the user experience.

## FORM

- Landscape elements

## LOCATIONS

The artwork elements would be integrated into the public realm throughout the Byford Station precinct.

## STORIES

Refer to the Sense of Place Statement.

*NOTE: All Artwork precedent images used are for visualisation and demonstration purposes only. This is not the final Artwork, themes, colours, patterns, graphics or design.*



Eastern Blue Gropper, Tim Johnman



Under the Laurentide, Maya Lin Jagger, 2014.

Photo: Warren



Marysville Heart Bushfire Memorial, Arterial Design, Murrindindi Shire



Bina Parkland Arterial Design

Photo: Jessica Wyld Photography



Marysville Heart, Arterial Design

## 2 PLACE ACTIVATION + PEDESTRIAN BRIDGE LARSEN ROAD

INTEGRATED + FUNCTIONAL

The BRE project includes a number of pedestrian crossings / overpasses above the railway line. The overpass at Larsen Street has been identified as an optional Public Art opportunity.

The pedestrian bridges link the community to the Station precincts. The intention is for the artwork to be visible on these, transforming a utilitarian element into an interesting and engaging design. The artwork will be highly visible and will welcome station users at a pedestrian level. The artwork concept will be drawn from the themes and translated in imagery, further consolidating the station narrative.

It is envisioned this would be a community engagement project with the Marri Grove Primary school (or similar TBC) with the artist working with the identified community group to develop a design specific to the area.

The artwork treatment would be located on the western end of the new pedestrian bridge. A number of surface treatments could be applied to the bridge surfaces to embed public art into these bridges creating relief and pedestrian engagement.

### OPPORTUNITY

The opportunities for the ground plane treatment are:

- Noongar language and other text, drawings or imagery;
- Artwork treatment embedded into the ground plane pathway at both concourse and platform levels.

### ROLE AND FUNCTION

- Enhance sense of place by expressing the local landscape within the public realm.
- Be integrated into and accentuate the public realm design.
- Destination experience for pedestrians.
- Assisting with way finding.
- Enrich the user experience.
- Re- Interpretation of existing artwork
- Revealing cultural and project histories
- Sustainability

### FORM

- Surface treatments
- Embedded elements.

### LOCATIONS

The artwork elements would be integrated into the public realm throughout the Pedestrian bridge.

### STORIES

Refer to the Sense of Place Statement.

*NOTE: All Artwork precedent images used are for visualisation and demonstration purposes only. This is not the final Artwork, themes, colours, patterns, graphics or design.*



Artist workshops with local school, Paul Hart, Midland Advocacy Centre  
Photo: Frances Andrijich



Winin Katidjin Bilya, Kamsani Bin Salleh, Curtin University SOBDE, 2022  
Photo: Frances Andrijich



Bina Parkland; Photo: Jessica Wyld Photography



Kaju Yatka (Kalbarri Skywalk), Creative Spaces  
Photo: Wondrous World Images



# 10

## IMPLEMENTATION

DESIGN GUIDANCE

112



# DESIGN GUIDANCE



The design guidance offered in this concluding section offers guidance of how the Place Plan has the potential to shape the architectural design of Byford Station. The SOPS guide public realm, architecture, art and place planning with the themes of Hills Town; Connecting and Reveal providing impetus for the design responses bringing people together, evolving and developing the Byford Station Precinct over time.

## ACHIEVING THE SENSE OF PLACE

The Sense of Place is not existing on its own, but realised through the place planning, architectural and landscape designs, engineering and public art. They all to contribute to making the Sense of Place a lived experience.

They provide examples of how the SOPS could be implemented and is to be used as an inspiration and touchstone for all further design works of the station precinct. Essential is that the final design is based on the SOPS and can explain how it realises the intended experience.

	INFORMAL	GROWING	OUTDOORISH
	<p><b>INFORMAL</b></p> <ul style="list-style-type: none"> <li>/ Open and Friendly</li> <li>/ Relaxed</li> <li>/ Peaceful</li> <li>/ Playful</li> </ul> <p>Complementing the other two statements, the Byford station precinct feels informal, open and relaxed. It is a place breathing a slow pace, even when people might be rushing through to catch their train. The place is functional and organised, but without looking rigid and constricting. It is playful, fluent and friendly</p>	<p><b>GROWING</b></p> <ul style="list-style-type: none"> <li>/ Old and New</li> <li>/ Exploring and Developing</li> <li>/ Youthful and Fresh</li> <li>/ Grounded</li> </ul> <p>The Byford station precinct is a place of becoming. It is a place of settling in a settled environment. Old and new go together hand-in-hand. The place feels comfortable and safe. It is youthful and forward looking, while remembering the past; the orchards, the brickworks and country.</p>	<p><b>OUTDOORISH</b></p> <ul style="list-style-type: none"> <li>/ Brooks</li> <li>/ Country Feel</li> <li>/ Simple</li> <li>/ Experiencing the Seasons</li> </ul> <p>The Byford station precinct contributes a country feel to the town centre. The hills and brooks can be experienced everywhere, with each season creating its own spectacle. Spaces and buildings remind of the natural landscape and rural farms, while accommodating the urban convenience of a town centre. Life happens preferably outside and spaces provide for that. Even hikers and horses can be seen in town.</p>
<b>PLACE PLANNING</b>	<ul style="list-style-type: none"> <li>The rail lines are moved to the west to retain most mature trees on the east side and safeguard the outdoorish bush character along George Street within the Byford town centre.</li> <li>The nature play in the Welcome Place provides a unique outdoor activation within the town centre.</li> </ul>	<ul style="list-style-type: none"> <li>Activation of the Welcome Plaza is focused on families and youth, with the nature play and seating.</li> <li>A shared street next to the Welcome Place, with facilities for coffee cart and food trucks, provide economic rub to the area precluding the town centre development.</li> <li>The Park and Ride carpark is designed to allow for an increase of parking bays without the need to demolish the Day One outcome. All swales and trees can be integrated in a future situation.</li> <li>The layout of the parking accommodates future town centre developments to activate streets, optimise parcels around the station infrastructure.</li> <li>The bus interchange is located parallel to the rail line, and designed for future extension of bus routes, without intruding on developable lots.</li> <li>Tree-lined footpaths along Clara Street West and Sansimeon Blvd connect to the schools, encouraging youth to walk and appreciate the outdoors.</li> </ul>	<ul style="list-style-type: none"> <li>The Welcome Place is organised as a 'bush plaza', with various informal seating arrangements (individual, in pairs, in groups) and seating options (in the sun, in the shade, close to busy walk routes, at quiet spots, on benches).</li> <li>Events power, water and drinking fountains make the Welcome Place flexible to use.</li> <li>The functional layout of the Welcome Place stimulates informal contacts or 'bump'.</li> <li>Seating throughout the Welcome Place allow for informal gathering.</li> </ul>

TABLE 7. DESIGN GUIDANCE TO ACHIEVE THE SENSE OF PLACE



	INFORMAL	GROWING	OUTDOORISH
ARCHITECTURE	<ul style="list-style-type: none"> <li>The architecture focuses on simple forms under a big roof, as a modern expression of the local vernacular.</li> <li>The station facilities are designed as pavilions spread out over the precinct, instead of one large building containing everything.</li> <li>Most functions in the buildings are connected via outdoor spaces.</li> </ul>	<ul style="list-style-type: none"> <li>The use of materials refers to the roots of the area, with the old brickworks and timber industry, but the expression of the materials is modern and fresh.</li> <li>The architecture is relaxed and playful, with restrained forms and fluent shapes.</li> </ul>	<ul style="list-style-type: none"> <li>The station is not one formal building, but a set of pavilions under a combined roof.</li> <li>The architecture of simple rectangular forms contrasts with the informal aesthetics of the bush, aiming to let the fluid and natural landscape speak.</li> </ul>
PUBLIC REALM DESIGN	<ul style="list-style-type: none"> <li>The public realm includes native trees, providing shade and cooling in the outdoors.</li> <li>The Welcome Place uses a combination of permeable pavement, compacted gravel and planting, creating a bush-type atmosphere.</li> <li>Seating and amenities for staying designed for comfortable use.</li> </ul>	<ul style="list-style-type: none"> <li>Street trees are natives, but selected to create urban grandeur and seasonal effects.</li> <li>Native planting is used in a fresh and modern way, with big season effects, like mass planting of kangaroo paws along the PSP and carpets of everlasting in the swales.</li> <li>The nature play supports creative play, encouraging confident exploration.</li> <li>The future street network is designed to introduce street trees that reduce the visual impact of car parking areas on future surrounding development.</li> </ul>	<ul style="list-style-type: none"> <li>The section of the Plaza Road adjoining the Welcome Place has a continuous plaza paving and looks like part of the plaza, making car drivers feel like a guest and create smooth pedestrian connections, reinforcing the informal vibe of a place for people.</li> <li>Welcome Place is not designed as a formal urban plaza, but as a bush plaza, with a mixture of native planting, turf, unit pavers and permeable paving.</li> <li>Many informal seating opportunities (seating edges, etc.) allow for informal resting and socialising.</li> <li>Pavement patterns are organic, with defused transitions between colours.</li> </ul>
PUBLIC ART	<ul style="list-style-type: none"> <li>Public art are no stand-alone statements, but is integrated in the public realm in an informal manner, emphasising the relaxedness of Byford.</li> </ul>	<ul style="list-style-type: none"> <li>Elders are engaged throughout the process to ensure that the knowledges is translated into the station precinct in a culturally appropriate manner</li> <li>Mentoring program sees the artist being mentored through the public art process from concept to completion.</li> </ul>	<ul style="list-style-type: none"> <li>Storytelling through public art is used as another layer of interest to attract people to outdoor places and entice them to stay longer.</li> </ul>



**MetCONNX**

