

Report Stage
Final

By
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Client
Hobsons Bay City Council

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Hudsons Road Streetscape Master Plan

ratio:

Planning Transport Urban Design Waste Management

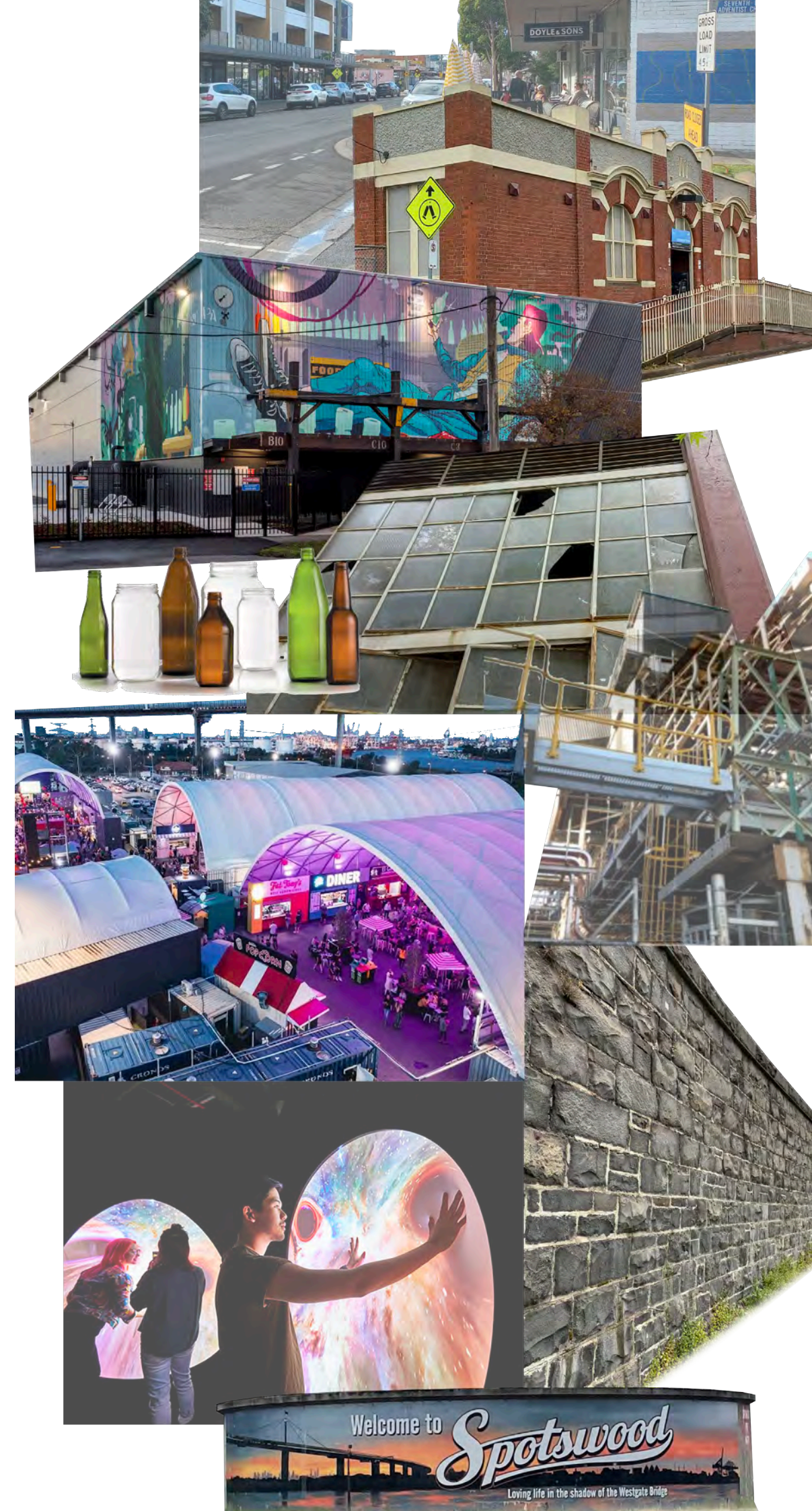


Table of contents

	Section	Page No.
1	Introduction	3
2	Study Area	4
3	Spotswood History	5
4	Background Documents	6
5	Site Analysis	7
6	Constraints / Issues	10
7	Opportunities and Vision	12
8	Community Engagement	14
9	Material Palette	15
10	Landscape Design	20
11	Response to Climate Change	24
12	Transport/Traffic	26
13	Plans	27
14	Footpath Design	33
15	Visual Impressions	34
16	Preliminary Staging Plan	37

Appendices

Appendix A - Existing Services (DBYD)

Appendix B - Conceptual Drainage Design and Constructability Report

Appendix C - Community Engagement Report

Appendix D - 'Local Leaders Focus Group', 'BW' recommendations and 'What We Heard'



1. Introduction

1.1 Introduction

Spotswood is a small, neighbourhood pocket of Melbourne's inner west. The suburb is undergoing a period of transition, with numerous public and private works. These works accompany a projected period of rapid population growth. The local population in Spotswood and South Kingsville is expected to double by 2036, with an average household size of 2.38.

The main demographic groups are family households, young and middle-aged adults, and young children. Planning for this population requires a redesign of the current urban form, which Council have addressed with their Spotswood and South Kingsville Better Places Guide (BPG), and the draft Spotswood Activity Centre Structure Plan.

Spotswood is comprised of fine-grain retail premises, detached and semi-detached dwellings, and a vast industrial area. The Better Places Guide identifies that only 3% of land is classified as formal and passive open spaces. The suburb is bounded by the Yarra River to the east, the Westgate Bridge and Stony Creek to the North, and the suburbs of South Kingsville and Newport to the west and south, respectively.

In order to support this growing population, a redesign of the main street, Hudsons Road, has been envisioned. This work exists alongside the Streets for People project, where Ratio also undertook the conceptual design report. Community engagement undertaken for the BPG revealed the top issue for residents to be public roads. Presently, only 5% of residents use bike/walking as their main method of travel.

The vision for this project is adopted from the BPG:

- "Spotswood and South Kingsville will be a modern urban village where all the needs of daily life are within easy reach.
- ... It will be a 'place for people' - with great parks and public spaces and tree-lined streets that connect the community and make walking, cycling and active transport the most attractive and convenient way to get around.
- The history of industry in the area continues to be maintained and celebrated ..."

Our suggestions and initiatives will assist in achieving this goal. History is clearly of importance to the local community, and was identified as a key theme throughout the BPG and draft Structure Plan. Historical references have been heralded throughout this guide, embedded within the streetscape redesign, street furniture, and material palette. Equally, the guide responds to the suburb's demographic, creating pleasant, green, child-friendly spaces that encourage play, rest, vibrancy, and community life all along Hudsons Road.

The proposed design is conceptual only and may be subject to changes depending on further studies, capital works funding, and technical investigations which may affect the viability and/or detail of design elements and streetscape interventions recommended in this document.

1.2 Our Approach

Study of the existing character and context has resulted in a concept design to be used to guide future infrastructure and capital works projects that improve safety, drainage, amenity, and presentation of the street in a cohesive manner. Urban design, transport planning, civil engineering works and landscape architecture components have been combined to create a holistic approach to the street, which should be readable on the ground, and contribute to a pleasant experience of the centre of the town.

Quality, people-friendly spaces have been prioritised along the length of Hudsons Road, so that it can ultimately support community life, local businesses, innovation, and local residents' needs.



2. Study Area



Study Area - Hudsons Road between Melbourne Road to the west and Booker Street to the east

3. Spotswood History

Spotswood History

Spotswood's history has emerged out of its geographical features. Conveniently located near the convergence of the Maribyrnong River with the Yarra Birrarung, just before the mouth of the Yarra, it was an ideal site for industrial development, capitalising off the convenient access to shipping, the main method of delivering goods to markets. Today, Hudsons Road is cut off from the water. The dominance of the West Gate Bridge, curving across the skyline, is the only cue of the proximity to rivers and the bay.

Pre-colonisation, Hobsons Bay was a vast Kangaroo hunting ground. Home to the Yalukit-willam, the Bunurong Land Council are the Registered Aboriginal Party for the area. Strong connections to this Country remain. In Meyer Eidelson's boom Yalukit Willam, the River People of Port Phillip, the strong oral tradition of the Kulin Nations is recounted, telling of the flooding of the bay, Nerm, approximately 6000-7000 years ago. Despite ongoing knowledge and culture, evidence of Indigenous presence is starkly absent from the Hudsons Road streetscape, and throughout Spotswood more broadly.

Spotswood's name comes from J.S. Spottiswoode, the owner of the 119-acre dairy farm that was one of the first Western uses of the land. This allotment was soon subdivided, and industry moved in. In 1890 the Australian Glass Manufacturers moved into the area. Glass production is still ongoing along Hudsons Road today, producing iconic brown-glass beer bottles. Other prominent industries included canned mutton production, metal trades such as iron-work and ship building, agricultural implements, and during the war, many factories were used for ammunition production.

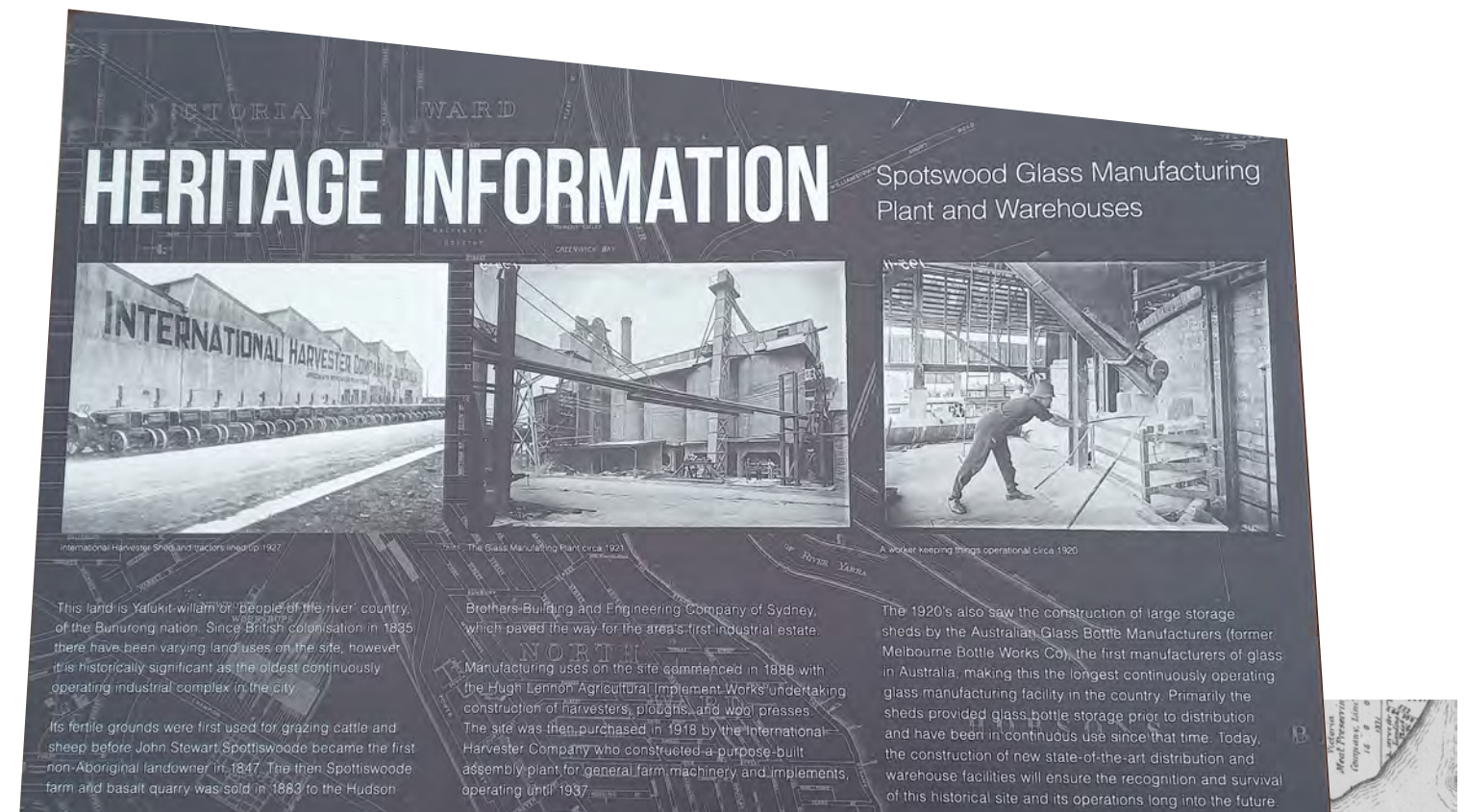
Bassalt, or more commonly known as Blue Stone, was found along Stony Creek, just north of Hudsons Road. Quarries were established, shipping the stone upstream to Melbourne. This is an iconic Melbourne material, laid down in CBD laneways, and evident in historic houses. A prominent Blue Stone wall still stands strong in Spotswood, running along Douglas Parade and facing the water.

Like for the industries, the West's flat topography was ideal for a sewerage treatment plant. Spotswood's location at the mouth of the Yarra makes it one of the lowest points in Melbourne, and so in the 1890s construction began on the Pumping Station. A crucial component of the sewerage system, this facility enabled the sanitation of Melbourne, and thus contributed to the facilitation of the city's growth. The buildings were constructed in the French-renaissance style, and house historically important engineering equipment. With the combination of the booming industries and the Pumping Station, Spotswood's legacy is that of innovation and great feats of engineering.

To keep the industries running, a large workforce was needed. 'Workers cottages' were built to house the many migrant workers who moved to the area. Spotswood was an appealing suburb for its cheap land and immediate proximity to employment opportunities. A diverse community have always co-existed alongside industry in Spotswood.

Equally, many workers also travelled from neighbouring suburbs. The railway, which was the first to be built by the Victorian government, became central to life in Spotswood. It facilitated the movement of people and goods, and proved to be a leading industry for local employment (Vines, 1989). Railway sidings were a prominent feature, dotted throughout the landscape. Today, the railway station stands central along Hudsons Road, but visually is separate from the streetscape. Rather than bringing the area together, the rail line divides Hudsons Road in two.

The first theme of the BPG, 'Remembering Our Past, Shaping Our Future', shows that the community value this history. References to the past have been incorporated throughout this guide.



4. Background Documents

This Hudsons Road Streetscape Master Plan was envisioned to see Hudsons Road live up to its potential as a thriving commercial and community spine. It considers a number of documents that were prepared by Council to guide improvement works in the Spotswood area.

The Draft Activity Centre Structure Plan establishes that Hudsons Road be a key pedestrian route within a generally well-connected suburban centre. It suggests initiatives such as the widening of footpaths, upgrading of infrastructure, increasing greenery and shelter, and minimising car parking within the village. Upgrading the pedestrian experience of the village is crucial. The fine grain character should be maintained, and upgrades to the public realm will lead to enhanced usage of this asset. Stronger connectivity to the train station, and references to local history that celebrates the unique character of Spotswood will also be of great benefit.

Improvement works within the village centre should be extended along Hudsons Road to ensure a cohesive urban environment. The Draft Activity Centre Structure Plan calls for improved connections to the river, references to the area's industrial history, active frontages, and encourages adaptive reuse of industrial sites. GrazeLand is an excellent example of such re-use, and is a unique drawcard that is conveniently located a short walk from the centre of Spotswood. However, visual cues and urban design initiatives are required to transform Hudsons Road into the desired vibrant, cohesive pedestrian experience.

The Better Places Guide envisions Hudsons Road as a vibrant, safe, and pedestrian-friendly space. Major works are required to achieve this vision. However, the street has excellent capacity to evolve, with many opportunities identified both in the Better Places Guide, and this streetscape redesign document.

The Hobsons Bay Forest Strategy, adopted in 2020, aims to increase the tree canopy coverage to 30% by 2040. Currently, it sits only at 7.5%. The guiding principles for this strategy essentially focus on cooling, health & wellbeing, identity & character, neighbourhood amenity and biodiversity.

The brief for the Streetscape Master Plan requested we consider additional greenery and opportunities for improved landscaping, as Spotswood is an area identified as having high urban heat vulnerability. As identified in the Better Places Guide, addressing this vulnerability is crucial to ensuring comfortable and frequent use of the main street as a public asset. Capitalising off nearby projects, such as the Greenline, is another great opportunity for Hudsons Road to become a greener, cooler, healthier place.

The following documents have also been influential in the creation of this document:

- Draft Spotswood Activity Centre Structure Plan (March 2022)
- Better Places Spotswood and South Kingsville (September 2021)
- Local Area Movement Plan (LAMP)
- Streets for People (November 2022)



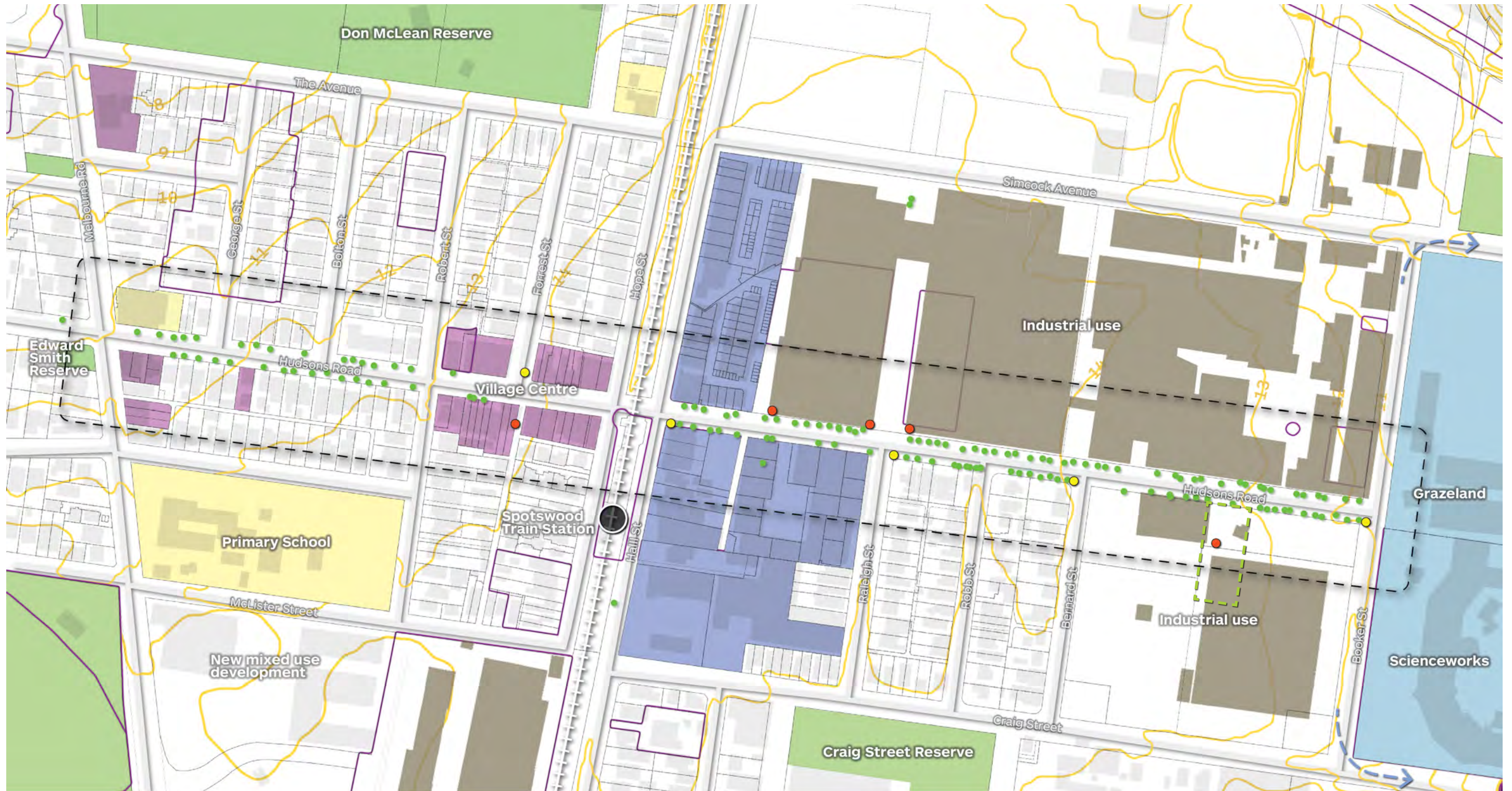
LEGEND

- STRUCTURE PLAN BOUNDARY
- RETAIL AREA
- SMALL-SCALE BUSINESS/INDUSTRY/ENTERPRISE
- MUSEUM VICTORIA SITES
- OPEN SPACE
- 🚉 TRAIN STATION
- 🚶 WEST GATE PUNT SERVICE
- 🚶 WALKABLE CATCHMENT FROM TRAIN STATION
- 🚌 BUS ROUTE (EXISTING)
- 🚌 BUS ROUTE (PROPOSED)
- 🚶 PEDESTRIAN PRIORITY ROUTE
- 🚲 CYCLING PRIORITY ROUTE
- ↔️ KEY PEDESTRIAN LINK BETWEEN RETAIL AREAS
- ACTIVATION OPPORTUNITY



Artists Impression - Hudsons Road and Hope Street / Better Places Document

5. Site Analysis



LEGEND

- | | | | | |
|--------------------------|--------------------------|----------------------|--------------------------------|-----------------------------------|
| Study Area | Heritage Overlay | Mixed Use Area | Events / Museum Area | Murals |
| Topography (1m contours) | Community Infrastructure | Industrial Buildings | Access/Connection to Foreshore | Sculptures |
| Existing Street Trees | Public Open Space | Retail / The Village | Train Station | Potential Open Space (SACSP 2022) |

5.1 Site Analysis

Hudsons Road is the main central spine of Spotswood. It crosses the railway line, and directly abuts Spotswood Train Station. Hudsons Road contains the 'village', residential, and industrial uses. The section of Hudsons Road included in this project is bounded by Melbourne Road to the west and Booker Street to the east. They are two main entry points to Spotswood, yet lack the significant presence and visual appeal needed to act as welcoming gateways.

When analysed as a map, as on page 7, these diverse uses appear neatly separated. However, when experienced from the footpath, the proximity of industry, residential dwellings, and commercial premises becomes clear.

The streetscape itself lacks attention, and does little to celebrate the unique history and vibrancy of Spotswood. First of all, there is no sense of arrival. The two end gateways into Hudsons Road do not contribute to the public realm.

To the west of the railway, driving along Hudsons Road from Melbourne Road, residential dwellings dominate the streetscape. They front an extended residential area that is characterised by wide naturestrips and weatherboard houses. The dwellings that line Hudsons Road are mostly double fronted and single storey, with few recent developments. This section of the study is not particularly green, is car-dominant, and is continually engulfed by the sounds of heavy traffic.

Moving closer to the 'village', houses become single fronted, fine-grain commercial premises. The village is an attractive size, large enough to offer a range of retail and food venues, but small enough to remain an appealing human scale. There are almost no trees along this section, and the stark concrete that covers most surfaces creates an unwelcoming environment. There are nice moments, with murals and some outdoor dining, apparently undertaken, for the most part, by private businesses.

The village section must succeed as both a busy thoroughfare and local destination. Currently, the balance is off.

Spotswood Railway Station abuts Hudsons Road, but visually appears separate. Again, the entrance to the station is dominated by infrastructure for cars. The long line of the railway track cuts Hudsons Road in two.

On the other side of the railway line, the fine-grain venues are replaced with large, big-box type industrial sites. Historically, this area has made a significant contribution to Melbourne's industrial output, being strategically located next to mouth of the Yarra and one of Melbourne's earliest train lines. These large-scale buildings

have high walls that dominate the streetscape, and are built out to the property boundary. The large, blank walls close in on the street, making the pedestrian space feel small. There is an excellent example of extending the public realm at 47 Hudsons Road. The space breaks up the long, straight line of the road, provides a place of rest, and celebrates the industrial nature of the area.

Interestingly, it is this commercial section that has the most greenery. A long stretch of street trees creates a boulevard effect. However, yet again the street is overcome with noise, from loud industrial banging and a constant hum of traffic.

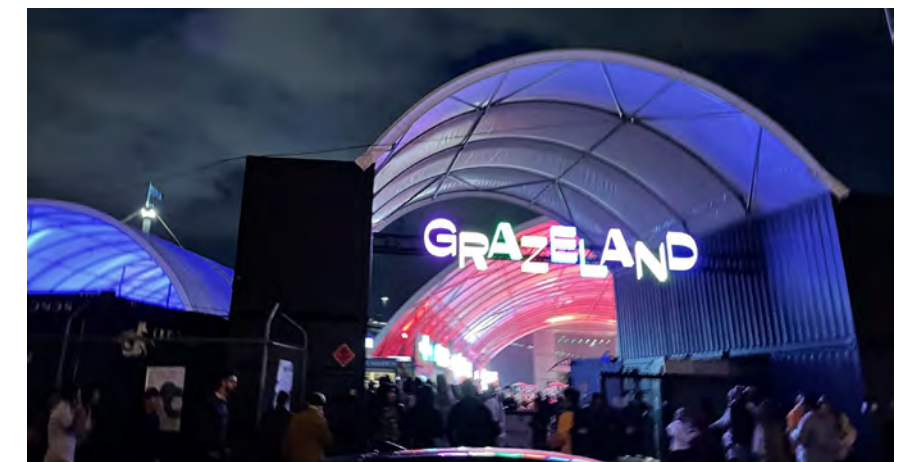
Walking east along Hudsons Road, the street becomes generic, without real connections to the surrounding natural and built landscapes. There is no evidence of just how close this site is to the water, to nearby nature reserves and old quarries, the views of Melbourne's CBD from the foreshore, the local businesses, and who the community is who live here. For a vibrant, heavily-used road, there is no real sense of place.

Hudsons Road abruptly comes to an end at GrazeLand and Scienceworks, at the site of the Pumping Station. Unfortunately, previous planning decisions have cut the community off from the water. Proximity to the water is illegible from the street, with GrazeLand and Scienceworks occupying the block between the Yarra and the eastern end of Hudsons Road.

The West Gate Bridge looms over the horizon in the distance. These two sites represent the character of Spotswood – honouring its industrial and engineering history at Scienceworks, and re-invigorating these legacy land uses with food and a modern twist at GrazeLand. However, again, there is no real sense of arrival at Scienceworks. Hudsons Road ends with a vacant lot, but GrazeLand demonstrates what excellent regeneration could look like, with innovation that respects the history of Spotswood.

The images to the right, and on page 11 of this report, illustrate clearly that a key element of the Hudsons Road streetscape is the overhead power lines. This is not a desirable feature. They dominate the visual field and clutter what would otherwise be an uninterrupted skyline.

The drainage works that are required as part of this streetscape redesign present a unique opportunity to underground these services. Significant roadworks will be required to implement the drainage required. Furthermore, with the level crossing removal announcement, the overhead services will need to be addressed around the railway line. Undergrounding these services would be a key move in improving the streetscape. It is a costly exercise, and so this is a truly unique opportunity to combine infrastructure projects and make them both more achievable.

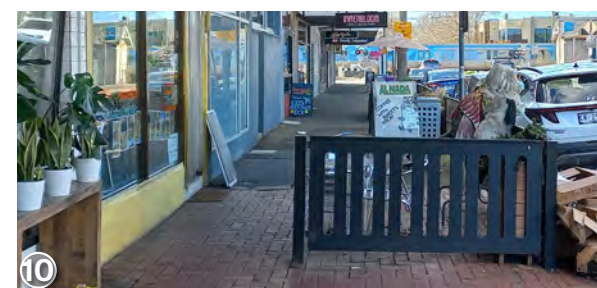


5.2 Existing Streetscape Elements

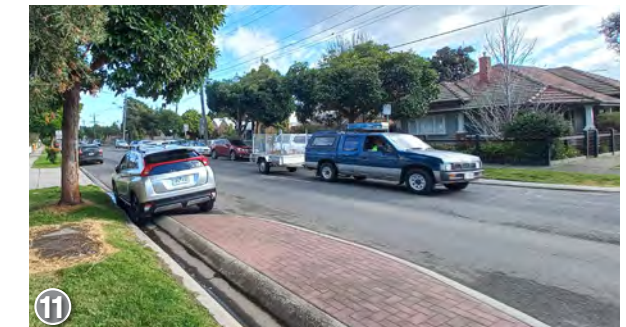
Street Art



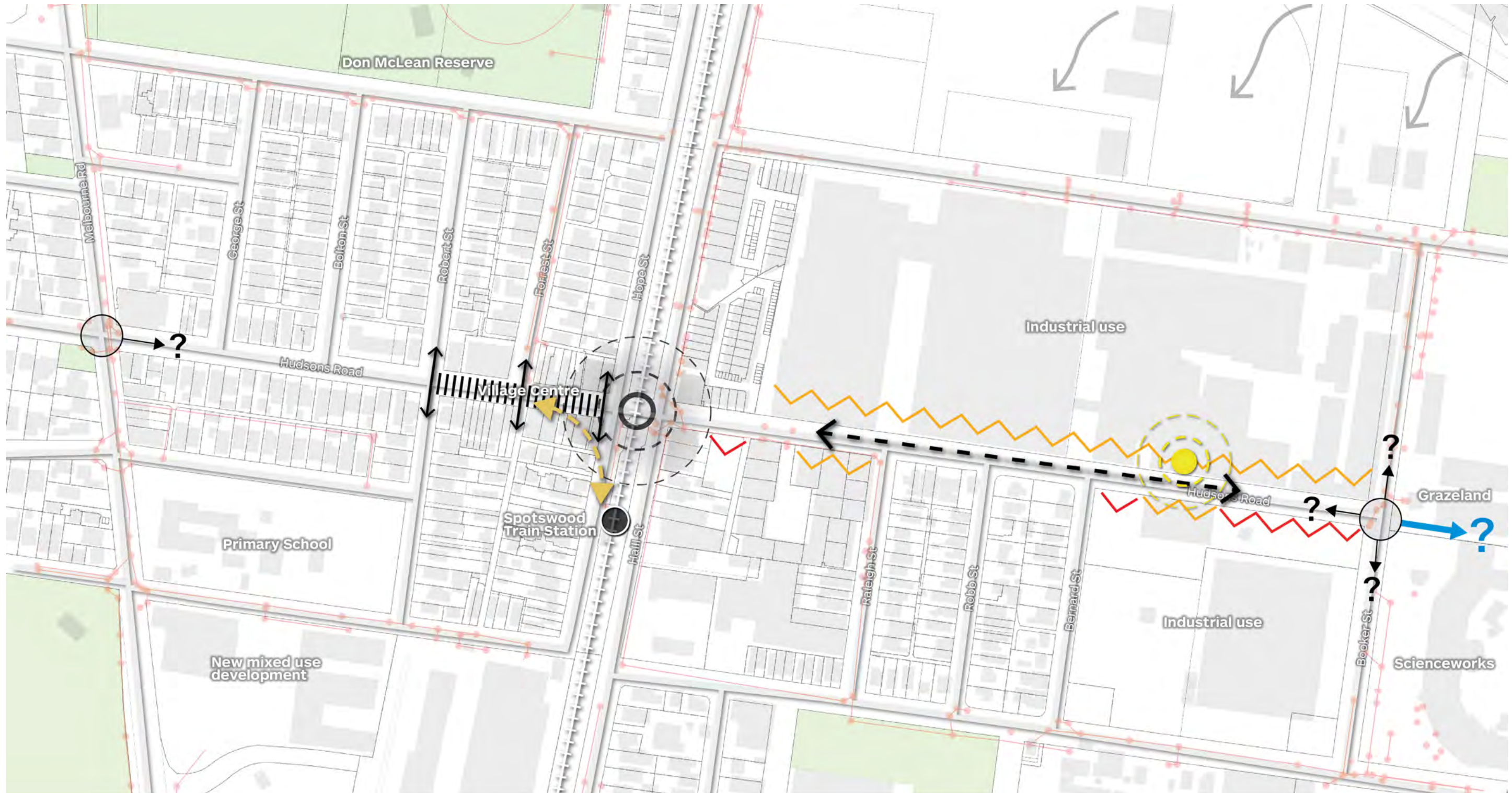
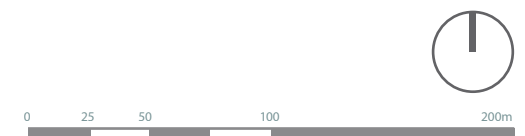
Existing Outdoor Dining



Other Elements



6. Constraints/Issues



<p>LEGEND</p> <ul style="list-style-type: none"> Lack of entry landmarks/wayfinding/sense of place Unsafe pedestrian crossings (low pedestrian connectivity and accessibility along Hudsons Road also identified in LAMP) Train Station segregated from Hudsons Road (issue also identified in LAMP and Ratio's Streets for People report) 	<ul style="list-style-type: none"> Lack of seating areas, vibrancy (Direction 3 of draft Structure Plan), and vegetation (also identified in Hobsons Bay Forest Strategy) Noise pollution (train) / traffic issues Noise pollution (industry) 	<ul style="list-style-type: none"> Noise pollution (constant) from the West Gate Bridge Separation between the eastern precinct and the train station/village centre Existing drainage and pits 	<ul style="list-style-type: none"> Blank walls - no 'eyes on the street' No ground floor activation, redevelopment of building facades needed (also identified in Direction 5 of the draft Structure Plan) No connection to the Yarra River (issue identified in Theme 3 and Place Project 12 of BPG)
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6.1 Constraints / Issues

The railway line that cuts through the centre of the site produces a frequent source of noise, but the train is not the only source of noise pollution. As identified on page 10, there is industrial banging and other industry related noise sources along the eastern side of Hudsons Road. The constant hum of traffic crossing the West Gate Bridge is also audible. Trucks, both passing through and idling at the boom gates, further add to the noise pollution in the area. The noise magnifies the impression one gets from the streetscape that the village is a thoroughfare, whereas it should be somewhere to spend time and enjoy the vibrant urban fabric. Noise poses an interesting challenge for the site.

Even though the train station is geographically central in the site, when experienced from the ground, it appears removed from the abutting village. Setback a few metres from Hudsons Road along Hope Street, the distance is sufficient to hide the station behind corner buildings. The streetscape lacks visual cues to indicate the close, convenient, location of a train station. This is, partially, because the streetscape is dominated by roads, and not pedestrian connections, street furnishings, and greenery.

The village streetscape is a rather harsh environment. Roads dominate, with concrete prominent. Image 'C' to the right demonstrates how electrical cables dominate the skyline, and cars dominate what should be the pedestrian realm. The pedestrian crossings are not sufficient for the space. The village area is severely lacking in trees and other vegetation, contributing to the well-documented Urban Heat Island present in Melbourne's wester suburbs. Moving to the east of the train line, more trees are present, with an avenue-style planting arrangement.

The difference in planting is one indicator of the inconsistent, and disjointed, streetscape along the length of Hudsons Road. Visually there is no link from the village centre (including the train station) to GrazeLand and Scienceworks. These two prominent businesses at the far east of Hudsons Road are drawcards that bring visitors to the area. Presently, the imposing industrial facades, narrow footpath, lack of signage, and noise pollution create a separation between the train station/village area and these venues.

The lack of landmark 'entry points' at the intersection of Hudsons Road with Melbourne Road and Booker Street further detracts from experiencing Hudsons Road as a linking, cohesive, central spine. Landmarks should be included at Melbourne Road, the main access road, and Booker Street, an important corner fronting both GrazeLand and Scienceworks, to assist in the telling of the story of Spotswood.













Finally, a further functional shortcoming of Hudsons Road is the lack of drainage systems. As indicated in the previous map, the majority of Hudsons Road is without drainage and pit systems. Not having this vital infrastructure will undermine, or at the very least hinder, works done to improve the streetscape for pedestrians. Additionally, the need to excavate sections of road to implement the drainage system provides an opportunity to be more ambitious with the recommendations, and include treatments that might otherwise be cost-prohibitive.



7. Opportunities and Vision



LEGEND

-  Entry landmark, upgrade of pocket park, and wayfinding as part of the Wayfinding Signage Project
-  Change the street's 'linear geometry' with kerb extensions for greenery and seating areas. Connect Hudsons Road with side streets through public spaces - pedestrian crossings with improved DDA amenity and raised corner platforms
-  Improve rail line pedestrian crossing. Spotswood LXR is opportunity to integrate public artwork, landmark features, and improve connectivity. See draft Structure Plan and BPG for further analysis
-  Better Places Spotswood & South Kingsville, Project No. 6 - The GreenLine - Major active transport corridors and crossing upgrades-linking all key local destinations extending to Federation Trail and proposed Westgate Tunnel project Veloway.
-  Better Places Spotswood & South Kingsville, Project No. 6 Key secondary cyclist connection
-  Human-scale village with increased outdoor dining, ground-level activation, raised pedestrian crossings, and increased vegetation and greening
-  Landmark feature that encourages connection to the river. Draft Structure Plan proposes a pedestrian link through redeveloped Scienceworks site. Investigate opportunities to reclaim viewlines through Grazeland site.
-  Bring innovative Hub (events precinct) closer to the Village Centre. Opportunity for 'Streets for Kids' design approach and Indigenous references (as a museum extension)
-  Raised platform corners - with old ballast stone, glass, and other tactical materials
-  Attractive footpath with seating areas, historical references, and increased greenery. Use of Spotswood's historical identity materials (Guiding Principle 1.4 in BPG)
-  Creation of a public space - node to different precincts within the area - wayfinding - corner raised platform - landmark / art and design elements
-  Opportunity for fragrant plants and pocket parks with 'sound' elements (e.g. water, PA) to distract from noise pollution produced by the industry (and the West Gate Bridge)

7.1 Summary of Opportunities

“Spotswood and South Kingsville will be a modern urban village where all the needs of daily life are within easy reach. It will have a diverse mix of people and living options and a vibrant village atmosphere centred around its local shopping precincts and open spaces. It will be a place for people - with great parks and public spaces and tree lined streets that connect the community and make walking, cycling and active transport the most attractive and convenient way to get around. The history in the area continues to be maintained and celebrated into the future through built form, character and land uses, but evolves to embrace a shift towards greener and smarter technologies and industries that are connected to the local community.” Activity Centre Structure Plan, 2022.

Walking along Hudsons Road makes clear the potential of the area, with the truly mixed-use nature an excellent asset. Traders have invested into their shop fronts, but the public realm is currently challenged by a range of factors previously discussed. Nevertheless, Spotswood has a range of unique opportunities that will be capitalised on.

Care has been taken to ensure that the recommendations are specific to Spotswood. The history of the area has been investigated, and in-depth analysis of the site and its role within the surrounding areas was completed. The following opportunities emerged:

Create entry landmarks at the intersections of Hudsons Road with Melbourne Road and Booker Street.

- Upgrade the existing pocket park with new garden beds, new wisteria tree frame, and more seating to be located at the back of the park, away from the road
- For Booker Street, the intersection could be raised to create a pedestrian forecourt at the entrance to Scienceworks and Grazeland. Collaboration with these two businesses could create a unique, inviting space.

Capitalise on Spotswood’s identity to create a streetscape that tells the story of the area, not just focusing on the past, but also the currently evolving, new, expressions of this identity.

- The history of the area’s industrial innovation could be told along the streetscape. Incorporating games, activities, and infrastructure of interest for kids would bring an exciting approach to revitalisation and use of the area.

Pedestrianise the village centre.

- Vegetation and street trees will soften the concrete, making a more inviting space. Greenery can also be used as barriers to protect the pedestrian space from the trainline and road.
- Utilise north-south street intersections to reclaim some of the road, to be used for community spaces such as plazas or green spaces like raingardens. Similar recommendations were made in the Streets for People study, also by Ratio. Explore road closures along Robert and Forrest Street for event and community pop-up spaces, as identified in the draft Spotswood Structure Plan.

Bring the ‘innovation hub’/industry revitalisation section closer to the village centre and train station by providing an attractive footpath for people to gather, rest, and find intrigue.

- A number of small interventions along this section would see Hudsons Road truly become a street for people.
- Streets for Kids approach, encouraging play and interactive zones that relates to Scienceworks.
- Wayfinding, as part of the Wayfinding Signage Project would assist in understanding the connectivity of the area from the pedestrian experience. Existing 'Science walk to Scienceworks' coloured poles to be removed and replaced to allow for a holistic wayfinding art experience.

General softening of the streetscape through greenery, street furniture and colourful tactical urbanism is required.

- Sensory Experiences such as sounds, shadow patterns from street furniture, scented planting and soft pavement treatments will distract from the heavy industrial noises, and create a human-friendly environment

7.2 Vision:

Spotswood is an interesting place with a unique history and future. It is clearly going through a period of transition, with residential growth, large infrastructure projects, and industry innovation and adaptive re-use all taking place. However, these activities are not translated into vibrancy on the street. The streetscape, really, could be anywhere, with minimal place-specific interventions.

We envision the hive of activity spilling out onto the street, and equally, an increase in pedestrians benefitting the local businesses. Colour, greenery, and points of interest along Hudsons Road will help realise the vision of a “vibrant village atmosphere centred around its local shopping precincts and open spaces”, and truly transform the space into a place for people, capitalising on its unique identity.



8. Community Engagement

8.1 This Concept Masterplan has been informed and has received input from different stakeholders including:

- Better Places Spotswood & South Kingsville 'Local Leaders Focus Group': sessions run by Council on the 5th of December 2022 and 22 of May 2023

- 'Better West Group', which submitted their feedback to the draft masterplan

- Hobsons Bay City Council internal stakeholders have been consulted and involved / given input into the design process, including Placemaking, City Design, Urban Design, Strategic Planning, Economic Development, Sustainability, Traffic and Transport, Parks & Council Arborist, Arts and Culture.

Community Engagement Summary

Ratio took the Hudsons Road Streetscape Master Plan to the Spotswood community on Saturday the 25th of February along with 2 council representatives. The draft plans outlined our vision, possible interventions, and material palette for the main street.

Taking our work to a community event resulted in a large amount of feedback, with many people queuing to see our proposed changes to their village.

There was much interest in engaging on this work, with large groups of people at our stall from 9am-1pm. There was resounding support from the community for 'beautification' works to Hudsons Road, which is clearly a beloved community place.

Overall, people appreciated the direction of the aesthetics presented. The diverse range of materials piqued people's interest, and the greenery shown in the inspiration images was liked. The reference to Spotswood's industrial heritage was apparently easily recognisable, and drew out people's strong connections to the local area.

We have included the complete 'Community Engagement Report' in Appendix C of this report. The following lines summarize our findings.

82% felt the proposed design captured what they wanted Hudsons Road to look like (online respondents)

Online survey respondents wanted to see more of:

- Reduce the number of trucks along Hudsons Rd
- Increase traffic calming measures
- Outdoor seating and dining
- Bike racks
- Historical references (railways and agriculture)
- Space for the community to gather
- More pedestrian crossings
- More greenery
- People want to see native vegetation used
- Art and sculptures
- A focus on children, and giving them a good environment

Four key themes emerged during the in-person consultation: the streetscape, landscaping, pedestrian amenity, and traffic.

People liked:

- The outdoor seating proposed, especially ones located near or under a tree
- Interactive elements for kids
- Kerb extensions
- Use of bluestone and brick materials
- Representation of local history
- Increased greenery

People wanted us to:

- Decrease trucks on Hudsons Rd
- Increase outdoor dining, especially for the Spotswood Hotel
- Add bike racks on the kerb outstands
- Use more brick
- Maintain the rotunda in Smith Reserve
- Provide more trees for shade in Smith Reserve
- Make sure pedestrian crossings were prominent
- Install hard barriers and move the pedestrian crossing call button further away from the corner, at the Melbourne Road x Hudsons Road intersection

All the recommendations have been considered in this master plan. The community's feedback can be found in Appendix C of this report.



9. Material Palette

The proposed material palette will form a cohesive streetscape, creating one singular design language that unites the village centre with the industrial uses to the eastern end of Hudsons Road. These two uses can often lead to conflicting design and use outcomes, and so a focus on the streetscape is central to ensuring that industrial areas 'fit' within the local neighbourhood character. This objective is aligned with the purposes of the Industrial Design Guidelines (draft), which include improving the amenity and design of industrial areas.

Furniture, planters and grates

Corten steel has been identified as a material that represents Spotswood's industrial heritage whilst providing a contemporary design aesthetic to the Hudsons Road streetscape.

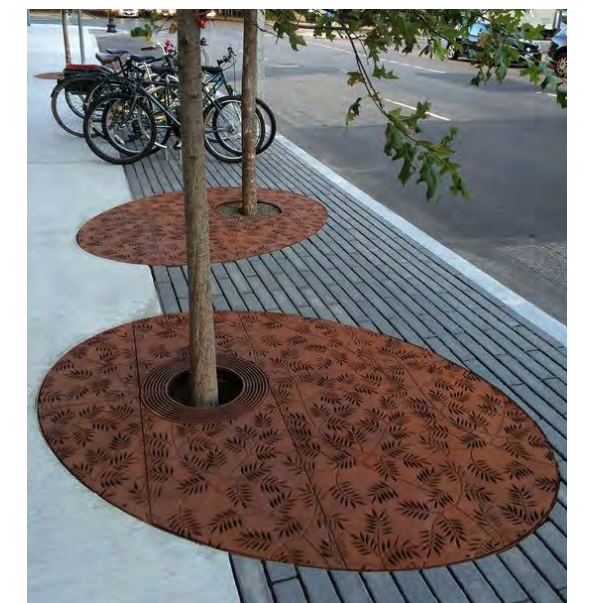
Geometric corten steel planters will allow for low vegetation, trees and timber benches. The recommended planter heights are specified in Section 13 of this report. Planter dimensions shouldn't exceed 8 metres in length, and allow for 1 to 3 metre breaks and/or different street furniture elements (e.g. benches) in between, as shown in Precincts 3 and 4.



For planters in close proximity to street intersections, a height of 0.3 metres will enable vehicle drivers' unobstructed view lines. The height may then rise, slanting upwards the further away from the corner it becomes.

Bike racks to be made out of corten steel and timber. Their locations are specified in Section 12 of this report.

The location of the corten steel grates to be determined during the construction documentation stage, based upon detailed land survey and mapping. There is an opportunity for these grates to include patterns/motifs that represent Spotswood's history and identity.



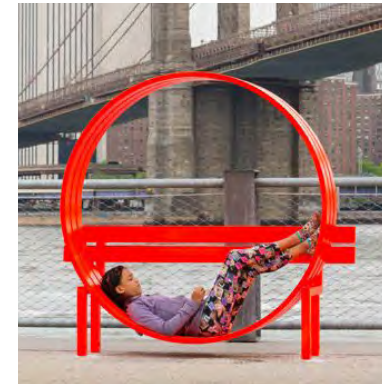
'Streets for Kids'

Multiple streetscape elements can be utilised to activate the streets based on a 'Streets for Kids' approach. The sheet shows a variety of infrastructure that are recommended for sections 3 and 4 - Sensory/Play Precincts.

The intention is to create an attractive 'journey' for kids and families from the Spotswood train station toward Scienceworks at the eastern end of the study area. 'By bringing colourful and playful elements, the 'Scienceworks' experience can be extended into the streetscape'.

Industrial blank walls can be used for the installation of 'climbing' elements and new bus stops can adopt creative shapes (consultation with private owners of subject land required).

Noise pollution is an important consideration, especially in the eastern section of the study area. Therefore, sound generating elements for kids' to play are highly recommended.



Noise attenuating / sound generation features

Hudsons Road includes different areas where noise contamination negatively affects people's experience of the public spaces.

This masterplan recommends including water features to attenuate the external noises, while also providing attractive visual streetscape elements.

Corten steel gutters combined with appropriate landscaping (refer to Section 10 of this report) will align with Hudsons Road's proposed streetscape aesthetic.

Sound interventions, similar to the William Barak Bridge in Melbourne, present another opportunity for Hudsons Road, especially in sections 3 and 4 - Sensory/Play Precincts. In these locations, public space initiatives could be achieved through a collaboration between Council and Scienceworks.

These interventions are also called for in the Industrial Design Guidelines (draft), where it is acknowledged that the design of industrial areas must include provisions to protect nearby residents and other land uses from excessive noise.



Sculptural / Shade Elements

Steel and glass shade-sculptural elements are recommended in specific locations along Hudsons Road. They act as landmarks for people to gather and obtain information through wayfinding signages and history panels. Steel and glass are materials that reference Spotswood's industrial identity.

The wisteria, located in the pocket park at Melbourne Road and Hudsons Road intersection, will be framed by a similar structure.

For information about the location of shade structures, please refer to Section 12 of this report.

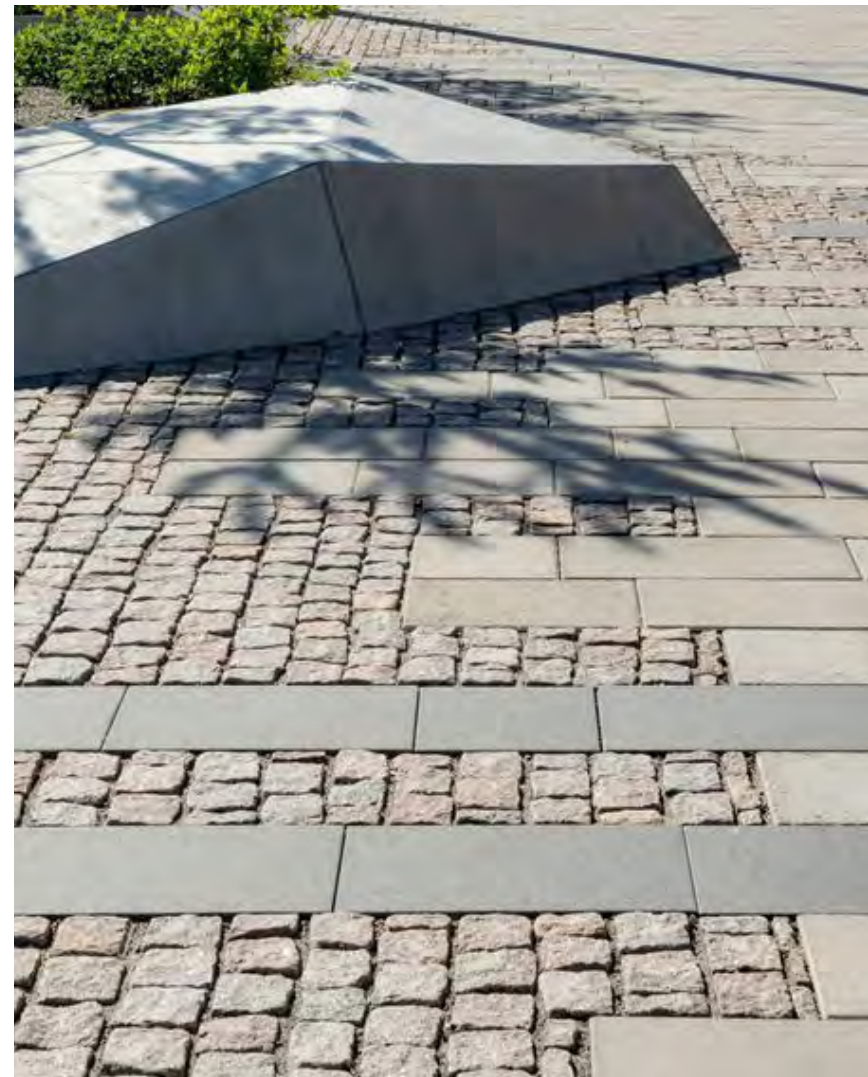
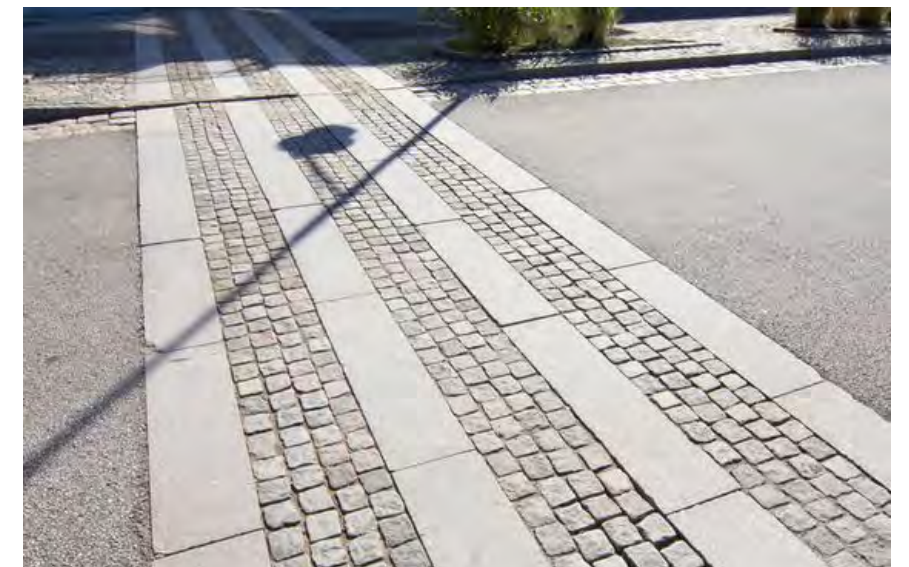


Footpath Pavement

Sawn bluestone, cobblestone and glass bricks will be installed in the 'High Quality Pavement Areas' specified in Section 12 of this report. Section 13 details how these different materials are to be located in the footpaths.

Both bluestone and glass have been historically produced in Spotswood. Therefore, their implementation through a contemporary footpath design is appropriate and talks to the areas' identity. While light and dark-coloured sawn bluestone are to be located in transit areas, cobblestone with glass inserts will mark the areas for rest and outdoor dining.

Overall, grey footpath materials will not compete against the planters' corten steel 'sculptoric' presence. Red bricks will be located in specific public spaces along Hudsons Road as shown in Section 12 of this report.



10. Landscape Design

The Hudson's Road streetscape presents an opportunity to instil a strong sense of place and distinct uniqueness to the local context by introducing planting choices based on colour, texture and interest, and unite a village from Melbourne Road to Booker Street with specific and characteristic landscape elements.

The planting palette is equally important in the village centre as it is in the industrial areas. As identified, the village centre presently lacks vegetation and natural elements. These plantings will provide vital shade, ecosystem services, and visual interest for local residents. A diversity of plantings will bring much needed colour to the street.

In the industrial areas, the more diverse planting palette and landscape design principles will help facilitate a high-quality streetscape design, through reducing the visual dominance of the large warehouse building typologies. Further, it is an objective of the Industrial Design Guidelines (draft) to "promote the creation of an urban forest in industrial areas".

Our selection of recommended plant species is reflective of our approach to aligning with principles of best practice in design in trying to achieve such outcomes:

Tree Selection

- It's important we make the right choices for specie selection and location in this area for health sustainability, long-term suitability and longevity, and make wise contribution to the Hobsons Bay Urban Forest Strategy 2020
- Future tree planting choices should aim to reduce urban heat, increase botanical diversity and create a unique local character where able, and become an integral part of design considerations for placemaking
- In certain areas, the location of underground services are a strong concern, where we need to consider the installation of small trees with limited root span combined with strong root barriers and/or strict trenches featuring plastic sheeting, corrugated fibreglass, concrete, fabric. Refer City of Hobsons Bay - Urban Forest Strategy - Challenges facing the Urban Forest in Hobsons Bay, Page 8
- Small trees in combined above ground corten steel organic/geometric shaped planters that could integrate seating should be considered as a more practical alternative to the installation of larger trees that will most likely impose on existing underground services, involve future wine glass pruning to also avoid overhead powerlines, are high maintenance and aesthetically unattractive
- Too many additional trees can contribute to existing visual street clutter
- Some of existing & proposed tree locations will require clarification after review of accurate survey information.



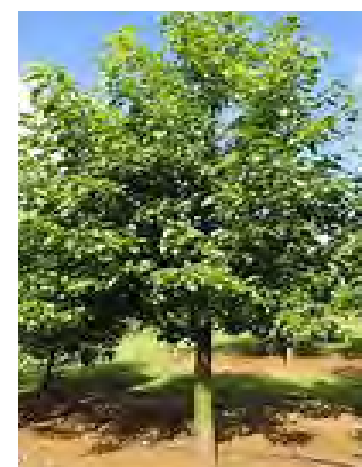
Brachychiton rupestris



Corymbia citriodora dwarf



Tristaniopsis laurina



Brachychiton 'Bella Pink'



Proposed Planting

To achieve the best design outcome, Ratio has engaged an integrated approach to street planting design that considers appropriate species selection, location, drainage, irrigation and WSUD principles to develop a comprehensive indicative planting palette.

Proposed street trees - include small-medium native species for the Hudsons Road streetscape that can work within the mentioned constraints. They typically feature non-invasive roots, shade for pedestrians & vehicles, interesting foliage/flowers, are hardy, are generally low maintenance, and can be used near overhead powerlines.

Understorey species - align with the DELWP EVC Volcanic Plain Bioregion information, 'The Woody Meadow Project' as well as the City of Melbourne's Urban Nature Planting Guide, and include indigenous plant species to provide for local birds, insects and other small wildlife. Understorey species are complementary to proposed trees and specially chosen to feature a mixture of interesting foliage, contrasting colours, texture and flowers suited to the specific application as detailed.

Hudsons Road Streetscape - inc. planters		
Botanical Name	Common Name	HxW
Trees		
Brachychiton populneus x acerifolius 'Bella Pink'	Pink Kurrajong	8 x 4m
Brachychiton rupestris	Queensland Bottletree	15 x 5m
Corymbia citriodora 'Scentuous Dwarf Pink'	Dwarf Lemon Scented Gum	7 x 5m
Eucalyptus pulverulenta 'Baby Blue' coppiced	Silver-leaved Mountain Gum	3 x 2m
Tristaniopsis laurina	Kanooka Water Gum	8 x 5m
Understorey		
① Alternanthera dentata 'Little Ruby'	Ruby Leaf alternanthera	0.4 x 0.7m
Banksia petiolaris	Prostrate Banksia	0.3-0.5 x 2-4m
Correa alba	White Correa	1.2 x 1.2m
Dichondra repens	Kidney Grass	prostrate x 0.6-1m
② Doryanthes excelsa	Gynea Lily	1 x 1.5m
Hardenbergia violacea 'Meema'	Purple Coral Pea	0.3-0.6 x 1-2m
Hebe diosmifolia x speciosa	Inspiration' Hebe	0.75 x 0.75m
Liriope muscari	Lily Turf	0.5 x 0.5m
③ Leucodendron 'Bella's Buttons'	Dwarf Leucodendron	0.45 x 0.45m
Pimelea humilis	Dwarf Rice Flower	0.5 x 0.5-1m
④ Santolina chamaecyparissus	Lavender Cotton	0.4 x 0.4m
⑤ Sedum spectabile 'Stonecrop'	Showy Stonecrop	0.5 x 0.6m
⑥ Stachys byzantina	Lambs Ears	prostrate x 0.4m
Westringia fruticosa 'Grey Box'	Dwarf Coastal Rosemary	0.5 x 0.5m



③



②



⑥



⑤



④

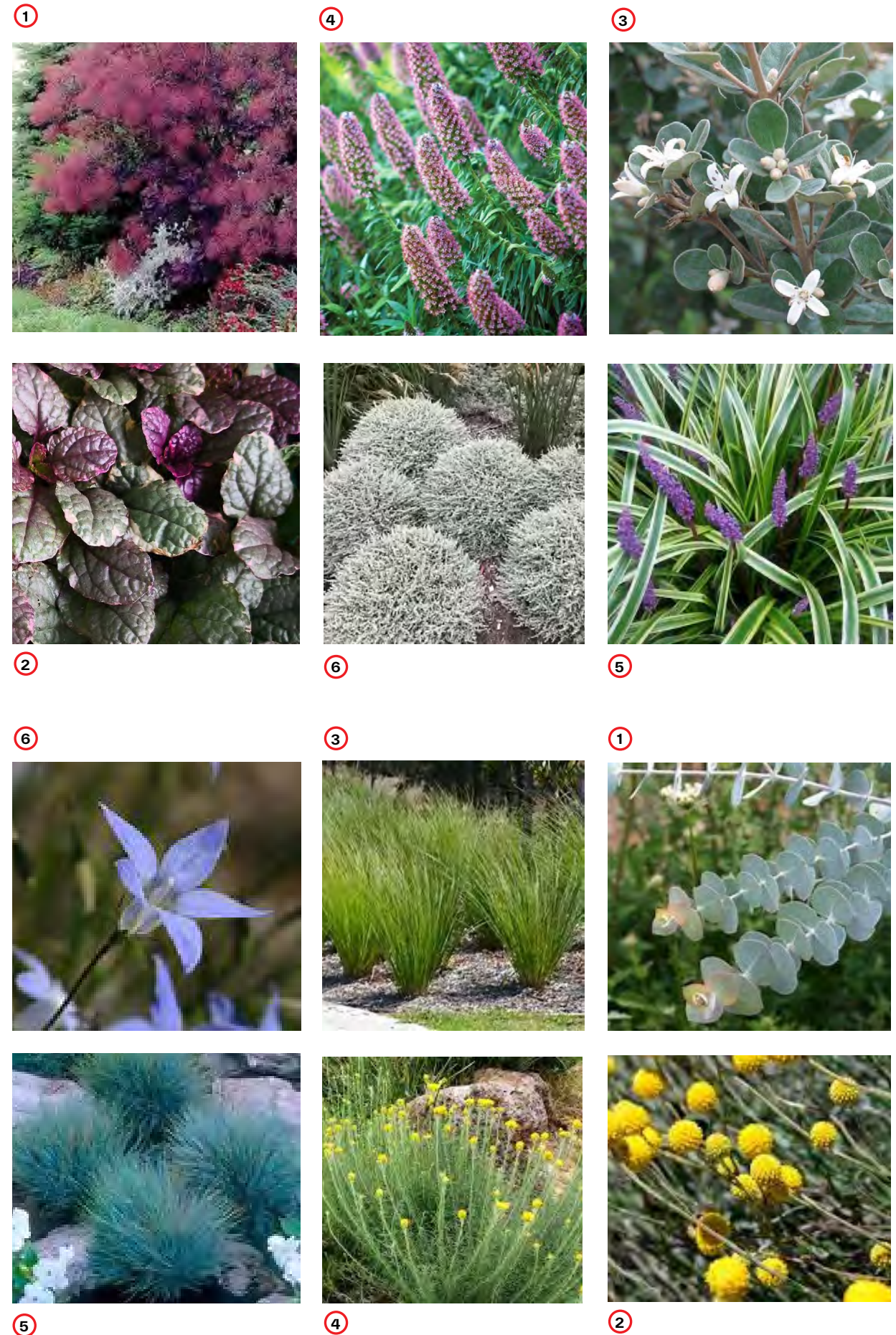


①

Edward Smith Reserve

Provide a lush backdrop to complement and highlight the existing *Wisteria* and provide a soft respite within a hard urban area.

Edward Smith Reserve		
Botanical Name	Common Name	HxW
Trees		
Backhousia citriodora	Native Lemon Myrtle	8 x 4m
1 Cotinus coggygia 'Grace'	Smoke Bush	2-4 x 2-4m
Hymenoporum flavum	Native Frangipani	3-8 x 3-5m
Tristanopsis laurina	Kanooka Water Gum	8 x 5m
Understorey		
2 Ajuga australis	Australian Bugle	0.4 x 1m
3 Alternanthera dentata 'Little Ruby'	Ruby Leaf alternanthera	0.4 x 0.7m
4 Correa alba	White Correa	1.2 x 1.2m
5 Hebe diosmifolia x speciosa	Inspiration' Hebe	0.75 x 0.75m
6 Liriope muscari	Lily Turf	0.5 x 0.5m
Leucodendron 'Bella's Buttons'	Dwarf Leucodendron	0.45 x 0.45m
Santolina chamaecyparissus	Lavender Cotton	0.4 x 0.4m
Sedum spectabile 'Stonecrop'	Showy Stonecrop	0.5 x 0.6m
Stachys byzantina	Lambs Ears	prostrate x 0.4m
Viola hederacea	Native Violet	prostrate x 1.5m
Westringia fruticosa 'Grey Box'	Dwarf Coastal Rosemary	0.5 x 0.5m



Raingardens

Species have been chosen to visually enhance the context and adhere to design principles of WSUD within a streetscape environment whilst ensuring clear sight lines for vehicles and pedestrians. Low, colourful and distinct planting blocks to provide contrast to corten steel/kerb & channel confines.

Raingardens		
Botanical Name	Common Name	HxW
Trees		
Brachychiton populneus x acerifolius 'Bella Pink'	Pink Kurrajong	8 x 4m
Brachychiton rupestris	Queensland Bottletree	15 x 5m
1 Corymbia citriodora 'Scentuous Dwarf Pink'	Dwarf Lemon Scented Gum	7 x 5m
Eucalyptus pulverulenta 'Baby Blue' coppiced	Silver-leaved Mountain Gum	3 x 2m
Tristanopsis laurina 'Luscious'	Kanooka Water Gum	8 x 5m
Understorey		
2 Baloskian tetraphyllis	Tassel Cord Rush	0.6 x 0.8m
3 Calocephalus lacteus	Milky Beauty-heads	0.25 x 0.2m
Carex appressa	Tall Sedge	1 x 1m
4 Carpobrotus modestus	Pigface	0.2 x 0.5m
Chrysocephalum apiculatum	Common Everlasting	0.3 x 0.8m
Dianella caerulea	'Little Jess'	0.4 x 0.4m
5 Festuca glauca	Blue Fescue	0.2 x 0.3m
Liriope muscari 'Silver Lawn'	Varigated Muscari	0.4 x 0.4m
Lomandra fluviatilis	Shara Lomandra	0.4 x 0.5m
6 Wahlenbergia communis	Tufted Bluebell	0.4 x 0.6m
Westringia fruticosa 'Grey Box'	Dwarf Coastal Rosemary	0.5 x 0.5m

Sensory/Play Precinct (see page 25 for specific project Sections)

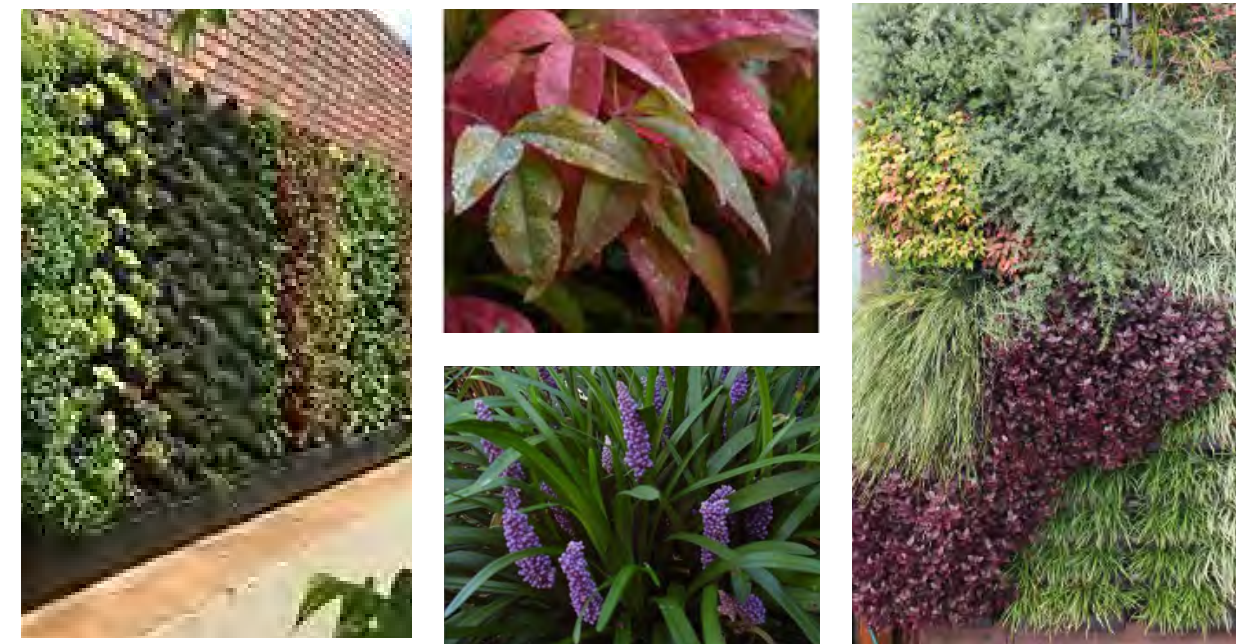
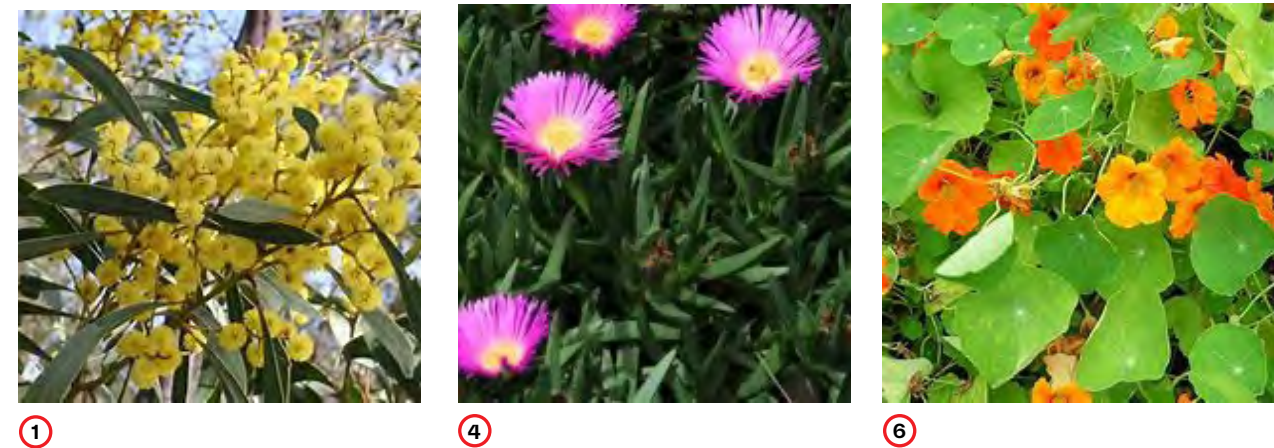
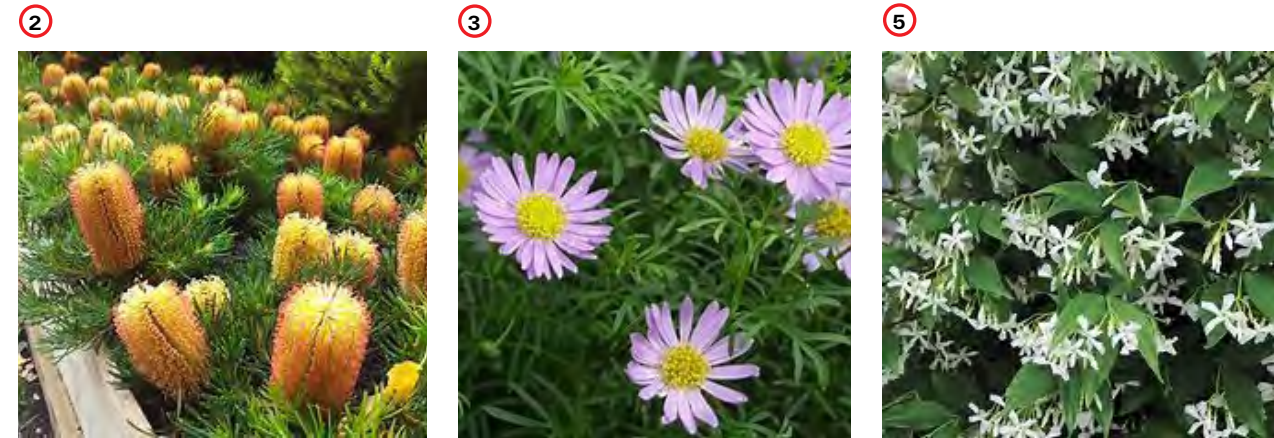
Inspire the senses of wonder and curiosity with planting variations in form, smell, touch, sound, texture and colour; wildlife attraction, and non-toxicity, to provide interest and entice movement within a linear space.

Sensory/Play Precinct		
Botanical Name	Common Name	HxW
Trees		
① Acacia pycnantha	Golden Wattle	2-10x 2-6m
Backhousia citriodora	Native Lemon Myrtle	8 x 4m
Corymbia citriodora 'Scentuous Dwarf Pink'	Dwarf Lemon Scented Gum	7 x 5m
Casuarina torulosa	Rose She-oak	8 x 5m
Brachychiton populneus	Kurrajong	
Understorey		
Austrostipa elegantissima	Feather Grass	0.3-0.6 x 0.3-0.6m
② Banksia spinulosa 'Birthday Candles'	Birthday Banksia	0.5 x 0.8m
Boronia heterophylla	Red Boronia	0.6 x 1m
③ Brachyscombe multifida	Cut-leaf Daisy	0.3 x 0.4-0.5m
④ Carpobrotus modestus	Pigface	20 x 50cm
Chrysanthemum frutescens	Marguerite Daisy	0.6-1 x 2-4m
Hardenbergia violacea 'Meema'	Purple Coral Pea	0.3-0.6 x 1-2m
Hebe diosmifolia x speciosa	Inspiration' Hebe	0.75 x 0.75m
Indigofera australis	Austral Indigo	1-2 x 1-2m
Lavandula angustifolia 'Munstead'	Dwarf Lavender	0.5 x 0.5m
Mentha australis	Native Mint	0.5 x 0.5m
Stachys byzantina	Lambs Ears	prostrate x 0.4m
⑤ Trachelospermum jasminoides	Star Jasmine	2-5 x 4m
⑥ Tropaeolum Majus	Dwarf Nasturium	0.2 x 0.3cm

Green Walls

Similar to Raingardens, provide colourful and distinct planting blocks to create vertical drama and interest, and enliven on an otherwise blank linear space. Species have been specifically chosen from Ozbreed Greenlife© selection of appropriate shaded wall species / or similar species. Green walls are subject to working with private property owners.

Green Walls		
Botanical Name	Common Name	HxW
① Liriope muscari 'VS001' PBR	Liriope 'Pink Pearl'	20 x 20cm
Liriope muscari 'LIRSS' PBR	Liriope 'Silverlawn'	15 x 40cm
Liriope muscari 'LIRTP' PBR	Liriope 'Amethyst'	40 x 40cm
Liriope muscari 'LIRF' PBR	Liriope 'Isabella'	40 x 50cm
Lomandra hystrix 'LHWP' PBR	Lomandra 'Tropic Cascade'	60 x 60cm
② Nandina domestica 'AKA' PBR	Lomandra 'Blush'	60 x 60cm



11. Response to Climate Change

11.1 In 2019 Hobsons Bay Council declared a climate emergency. They have since released a suite of documents that provide direction as to how the municipality will adapt to, and mitigate the worst of, climate change.

As a main street within Hobsons Bay, and with the re-design being a large piece of capital works, it is crucial that the Hudsons Road redesign seizes the opportunity to respond to climate change considerations. The Streetscape Master Plan has done so in a number of ways. The four strategies of Cooling, Greening, Permeability, and Integrated Water Management will be discussed below. However, it is important to conceptualise each of these strategies not as a distinctive, stand-alone aspect, but each part of a holistic system. Each component works together to create a streetscape that is respectful of, and contributes to, the valued environmental and lifestyle aspects of Spotswood.

Hobsons Bay's Climate Change Action Plan identifies the four major climate risks for Hobsons Bay as: higher average temperatures, less rainfall, rising sea levels, and more intense heavy downpours. The Streetscape Master Plan directly responds to three of these major climate risks, with adapting to rising sea levels being beyond the scope of the project.

11.2 Cooling & Street Trees

A major climate risk for Hobsons Bay is higher average temperatures. It is anticipated that the number of days per year over 35 degrees Celsius will increase from 8.3 to 21 days by the 2050s (Hobsons Bay Climate Action Plan). A major contributing factor to how this heat is experienced in our urban centres is the presence of concrete and hard surfaces. Localised hot spots emerge where heat is trapped in concrete, asphalt, and other similar materials.

Conversely, trees and the presence of vegetation can drastically cool their immediate surroundings. Trees in cities have been found to reduce temperatures by up to 10 degrees (Hobsons Bay Climate Action Plan). They are a natural, cost-effective solution to cooling our beloved streets. They also provide for an interesting, inviting environment with many other benefits too.

Identifying the important role that street trees will play in adapting to the higher average temperatures anticipated due to climate change, Hobsons Bay's Urban Forest Strategy (2020) set the ambitious target of increasing the tree canopy in public spaces from 7.5% to 30% by 2040.

The Streetscape Master Plan goes a long way in contributing to the achievement of this target. The Village Centre is presently void

of substantial greenery, and the whole of Hudsons Road does not include much understorey vegetation.

Investigations revealed that due to existing underground services, the planting of in-ground street trees was almost impossible within the Village Centre. However, the team worked around this issue and has found the solution of using planter beds to bring street trees and their vital cooling properties to most notably the village centre, but also the whole of Hudsons Road.

Strategies implemented: The Master Plan includes a total of 46 new trees for Hudsons Road, an increase of 35% on top of the existing street trees.

11.3 Greening

The inclusion of more street trees will drastically increase the vegetation evident within the Hudsons Road streetscape. Yet, the Master Plan takes greening a step further, also recommending vegetated rain gardens, understorey planting, green walls, and flowering plants (see Section 10). The importance of urban ecology in promoting habitat and local conservation areas was identified in the Hobsons Bay Biodiversity Strategy 2017-2022.

The combination of recommended plantings will transform the streetscape, and bring nature and urban biodiversity back to Spotswood. During community consultation we heard how important it was for local residents to have native plantings that can support wildlife, especially birdlife, to return to the area and thrive. Additionally, community members were keen to see increased greening for its ability to filter air pollutants. Given the location of Hudsons Road, in proximity to numerous major road networks and being a truck route, certain residents called for planting at a variety of levels to help protect them from traffic pollutants.

Ratio has proposed planting species that will thrive in the Volcanic Plain Bioregion that Spotswood is located within. Many of the recommendations are native species, with some exotic species recommended for their ability to grow in an urban setting.

Strategies implemented: The Master Plan will allow for approximate 1,190 m² of additional vegetation area through the provision of planter beds on kerb extensions.

11.4 Permeability

Permeability refers to ground coverage that allows for the passage of liquid, namely rain. Concrete is not permeable, whereas a grassed area is. Permeability is a big concern for urban areas, where a high percentage of concrete and impermeable ground surfaces leads to large volumes of water runoff (stormwater) or flash flooding.

In a natural environment, when it rains water is able to seep into the ground through grassed, vegetated, or other naturally permeable surfaces. This not only helps to water these plants, it also reduces the amount of runoff that goes into the water system at speed. If an area is too heavily concreted, too much stormwater is created, and local flooding and a surge of water into nearby river systems can occur.

An action within the Climate Change Action Plan is to ensure permeability is embedded into masterplans, structure plans, and urban design frameworks. Within the Hudsons Road Streetscape, current levels of permeability is low. One exception is the Edward Smith Reserve. Community members requested that minimal impermeable surface covers be added into this area, which the final plan has respected.

Furthermore, the introduction of rain gardens and vegetated kerb extensions will bring permeable garden areas along Hudsons Road. Rain will be able to soak into this ground, watering the plants and minimising stormwater runoff.

We have also recommended that permeable pavement be installed in appropriate areas along the street (see Section 14 of this report for recommended pervious concrete locations). Permeable pavement finishes allow rain to filter through areas that are used by pedestrians. However, they are not as sturdy as standard concrete, so need to be installed in low-traffic areas, such as the sides of the footpaths and certain kerb extensions. The location of permeable pavements will need to be determined at the detailed design stage.

Strategies implemented: Permeability embedded throughout the streetscape, with rain gardens, kerb extensions, and pervious concrete.

11.5 Integrated Water Management (IWM)

Hobson Bay's Climate Action Plan defines IWM as "a collaborative approach to water planning and management that brings together all aspects of the water cycle, including waterways and bays, wastewater management, alternative and potable water supply, stormwater management and water treatment".

Rather than traditional town planning approaches to water that involve a linear pathway to remove it from an area as quickly as possible, the Streetscape Master Plan in an IWM approach has considered a circular loop that keeps water in the landscape in responsible and practical ways. There are many examples of this.

Raingardens enable the on-site treatment of stormwater, keeping it in the landscape and using this valuable resource to water the vegetation. Raingardens treat pollutants in stormwater through natural processes, and minimise the volume of water rushing from an area in heavy rain events.

The proposed water features, to be used as sound attenuation, will operate on a closed-loop system. The sculptures and facilities will need to be designed so that the water can be treated and continually operate within the one water feature element.

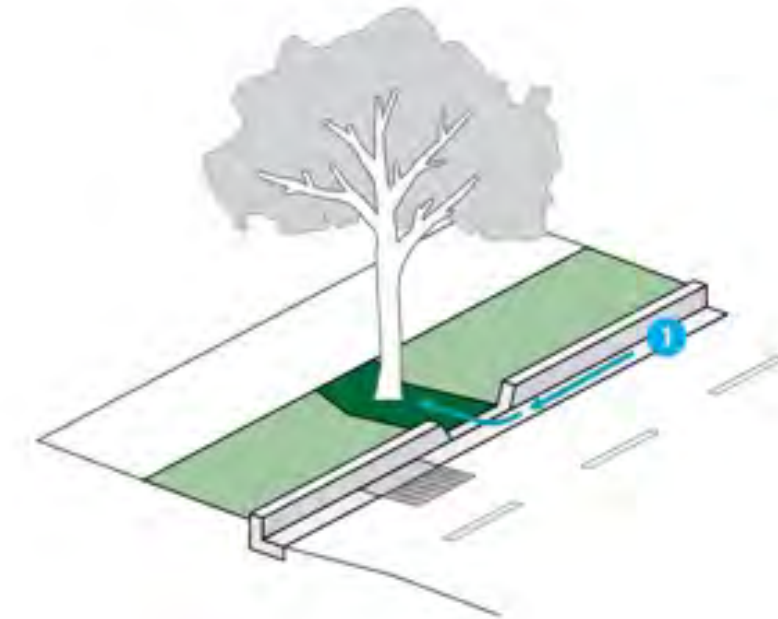
Even though it is important to keep water within the landscape and minimise stormwater runoff, it is impractical to assume that all rainfall can be collected and held within a streetscape area. It is thus an important aspect of IWM to have adequate drainage systems in place. Without these, localised flash flooding becomes a risk. It was identified that the Village Centre of Hudsons Road did not have adequate stormwater drainage, and so this report has been supplemented by the work of Spiire who have created a detailed drainage plan for the area.

Finally, with less rainfall and periods of draught a major climate risk identified for Hobsons Bay, it is crucial to plan for alternative water sources to be used to water the proposed and existing trees. We recommend passive watering of street trees and garden beds to be managed through kerb outcuts and/or inlet with infiltration well (as per diagrams on the right). Specific solutions to be determined during construction documentation stage.

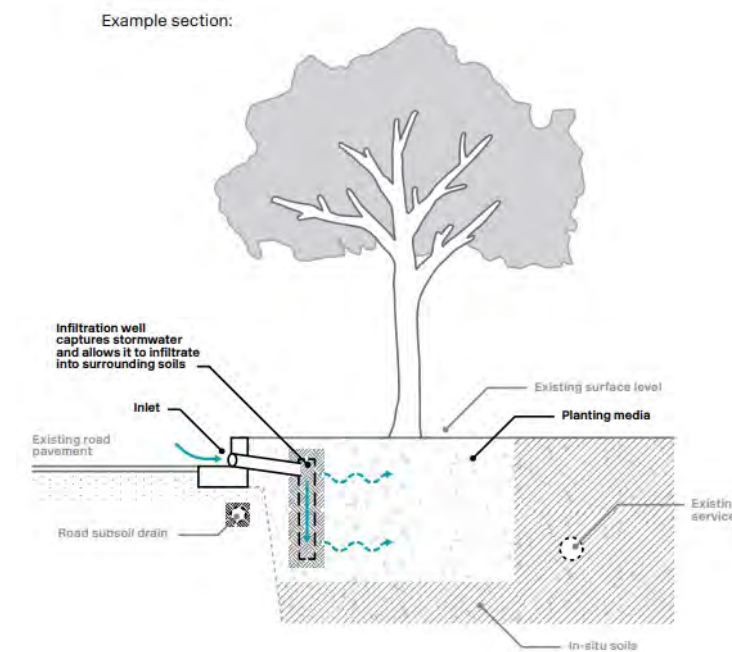
Strategies implemented:

- Raingardens on kerb extensions,
- Sufficient stormwater drainage for the Village Centre,
- Closed-loop water features as streetscape elements,
- Passive watering of street trees and garden beds.

Passive watering options:



Kerb outcuts



Inlet with infiltration well

12. Transport/Traffic

Summary of Transport and Traffic Considerations

12.1 Design Speed:

Speed limits across the State of Victoria are controlled by the Department of Transport and Planning, in accordance with Speed Zoning Guidelines.

It is understood that the 40km/h speed limit will be extended from its existing extent through the village to be between Melbourne Road and the Railway Line with the remainder of Hudsons Road to the east remaining as 50km/h.

Treatments suggested as part of the streetscape masterplan such as raised crossings and kerb outstands aim to reduce speeds to within Safe System thresholds for pedestrians and cyclists (i.e. within 30km/h - 40km/h).

12.2 Raised Treatments:

Further to the above, raised pavement treatments nominated in the masterplan including at intersections and wombat crossings are a desirable tool to reduce speeds and improve pedestrian priority, particularly through the village.

Any raised treatments must be bus capable for passenger comfort in accordance with relevant local standards of individual operator requirements, with ramps with a grade of approximately 1:20.

Pedestrian Crossings:

Where feasible, pedestrian crossings should be raised to be a consistent level with verge / footpath areas, which also improve pedestrian priority and reduces traffic speeds at key conflict points.

Key considerations for future functional layout and detailed design of pedestrian crossings include:

- Sight distance to pedestrians for vehicles travelling along Hudsons Road as well entering and leaving side streets;
- Provision of DDA compliant ramp grades and tactile ground surface indicators; and
- Reducing speeds at key pedestrian conflict points by raising crossings to be at grade with adjacent verge / footpath areas.

12.3 Planter boxes

Planter boxes and other permanent obstructions in verge areas should be carefully designed and located to minimise the impacts on sight

distance to other vehicles and pedestrians.

Any obstruction must be designed and reviewed in accordance with Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections.

Typically permanent obstructions should be avoided within 10 metres of an intersecting road, which is the area usually nominated as 'No Stopping' to support sight distance for vehicles exiting side streets.

Where located in areas potentially impacting sight distance, planter boxes (or similar treatments) should be a maximum of 900 mm high (overall including planting, except trees with a maximum diameter of 200 mm), and offset from the kerb by 300 mm.

12.4 Bus Stops:

Indicative bus stop locations have been provided in line with the Department of Transport and Planning's Public Transport Guidelines for Land Use and Development 'on-road bus stop siting' recommendations, being the following:

- 300 metres apart
- Stops should be located near demand generating land uses (such as shops, schools, high density residential developments or other community facilities).
- Near intersections to maximise walking accessibility into surrounding areas.
- Safe pedestrian crossings should be co-located with stops.
- At least 12.5 metres long for the bus stop, with 15 metres on approach and 10 metres on departure to allow for efficient access to the stop by buses.

It is important to note that these are indicative bus stop locations based on DTP and Council planning requirements. Currently, Hudsons Road is not a DPT Bus route. The definitive location for bus stops along Hudsons Road will be resolved through further investigation if / when a bus route is planned.

12.5 Design Vehicle:

The streetscape masterplan kerb outstands have been checked through swept path analysis to accommodate 8.8 metre long Medium Rigid Vehicle representing a typical Council operated waste collection vehicle.

Further swept path analysis should be undertaken during concept layout and detailed design stages.

12.6 Robert Street:

The rationale for Robert Street being converted to a one-way entry road stem from the previous Spotswood Streets for People Study, where Robert Street was identified as a 'key pedestrian link'. The one-way entry has been included to reduce non-local through vehicle movements, and enhance pedestrian / cyclist movements.

It is preferred for one-way traffic to travel in a northbound direction due to the road alignment with Robert Street south of Hudsons Road.

12.7 Melbourne Road Intersection:

It is understood that larger vehicles traverse the north-western corner of the intersection with Melbourne Road and Hudsons Road which is managed by the Department of Transport and Planning, damaging traffic signal posts and creating a hazard for pedestrians.

Potential solutions for the Melbourne Road intersection, which Department of Transport and Planning will be responsible for include:

- Providing physical barriers behind the kerb, such as bollards which allow for pedestrians to filter between.
- Signage along Melbourne Road to educate drivers to allow trucks to utilise the centre through lane heading south.
- Alter signal phasing to prevent left turns while pedestrians are crossing in a north - south direction.

Based on the current intersection arrangement and geometrical constraints, a redesign or remodel of the intersection will be unlikely due to the largest expected vehicle, which is currently a 19.0 metre long semi articulated vehicle.

12.8 DDA Spaces:

Two DDA car parking spaces should be provided in close proximity to the Hudsons Road village centre to ensure people with disabilities are able to conveniently access the village centre.

In accordance with AS2890.1: On-Street Parking, where provided parallel to the kerb, DDA car parking spaces shall be 3.2 metres wide and 7.8 metres long.














DDA spaces should be positioned on local side streets of Hudsons Road to ensure there is adequate space to meet the required DDA parking envelope. The recommended location being Forrest Street on the northern side and Hope Street on the southern side, which can also be utilised by people with disabilities using Spotswood Railway Station.

13. Plans



Study Area - Different Plan Sections

LEGEND

-  Existing Trees
-  Proposed Trees
-  Proposed Trees on Planters
-  Planters (with/without seating)
-  Rain Gardens
-  High Quality Paving (see Section 13)
-  Glass/Steel Structure
-  (A) Raised pedestrian crossing / Threshold treatment
-  (B) Historical References / panels
-  (C) Intersection under DTP control. Fixed physical barrier to respond to trucks turning into Hudsons Road from Melbourne Road / Potential for pedestrian crossing realignment and signal phasing
-  (W) Wayfinding Signage (indicative only)
-  Potential future Public Bus Route Stop
-  Bike Rack

Notes:

- 1- This is a design concept only and is subject to change
- 2- Heritage panels and other digital technologies will be included in the design and their specific locations will depend on the stories being told

SECTION 1 / The 'Rain Gardens Section'
Melbourne Road - Bolton Street



Enhanced Edward Smith Reserve. Treatment to include:









- Existing grass retained
- Water feature with industrial aesthetic to mitigate noise pollution
- Additional textured & flowering low shrub & groundcover planting to front of existing beds
- All planting beds to be bordered and defined by corten steel edging (eliminate need to use herbicide)
- 2 x new feature trees on Hudsons Road side for northern aspect shade
- 1 x new feature tree within existing planting bed
- New custom sculptural support frame with combined seating for existing Wisteria
- Granitic sand surface around base of Wisteria bordered by existing reclaimed bluestone pitchers and small planting bed at corner
- 2 x feature seating areas
- New Reserve signage









Kerb extension fronting current commercial use for seating area. New small tree and flowering textured plants separating footpath and carriageway. High quality pavement, one bench and water fountain



Rain garden and new trees on kerb extension. First road narrowing to 'mark the entry' to the precinct

LEGEND

-  Existing Trees
-  Proposed Trees
-  Proposed Trees on Planters
-  Planters (with/without seating)
-  Rain Gardens
-  High Quality Paving (see Section 13)
-  Brick Pavement
-  Cobblestone

-  (A) Raised pedestrian crossing / Threshold treatment
-  (B) Historical References / panels
-  (C) Raised intersection treatment with priority pedestrian crossings (see Section 13)
-  (W) Wayfinding Signage (indicative only)
-  Potential future Public Bus Route Stop
-  Bike Rack
-  Glass/Steel Structure
-  DDA car park spaces - Indicative locations

Notes:

1- This is a design concept only and is subject to change

2- Heritage panels and other digital technologies will be included in the design and their specific locations will depend on the stories being told

SECTION 2 / The Village
Robert Street - Hall Street



Public plaza / gathering space with benches, play elements, new trees on kerb extension, and Shade structure.

One way entry only on Rober Street as per 'Streets for People' project (see Section 11)



(D) Kerb extension with planters including trees, benches, and outdoor dining areas. Up to 80cm high planters (refer to Section 13)



(E) 50cm high planters with timber benches. Vegetation and planters to be less than 90cm high within 10 metres from corners. (see Section 13)

(E*) Planter with variation in height (from 30cm to 50cm) to allow visibility on specific corners (see Section 13). Vegetation and planters to be less than 90cm















North side: Kerb extension for outdoor dining (Hotel), with vegetation buffer.

South: Tables for people working on the mixed use area



LEGEND

-  Existing Trees
-  Proposed Trees
-  Proposed Trees on Planters
-  Planters (with/without seating)
-  Rain Gardens
-  High Quality Paving (see Section 13)
-  Brick Pavement
-  (A) Raised pedestrian crossing / Threshold treatment
-  (B) Historical References / panels
-  (W) Wayfinding Signage (indicative only)
-  Potential future Public Bus Route Stop
-  Bike Rack



Existing seating area / historical information.

Kerb extension proposal for improving the space with more seats and tables (for workers) with vegetation buffer and crates for existing trees



Existing seating area / historical information

Kerb extension proposal for improving the space with more seats and tables (for workers) with vegetation buffer and new trees

New pedestrian crossing



Notes:

1- This is a design concept only and is subject to change

2- Heritage panels and other digital technologies will be included in the design and their specific locations will depend on the stories being told

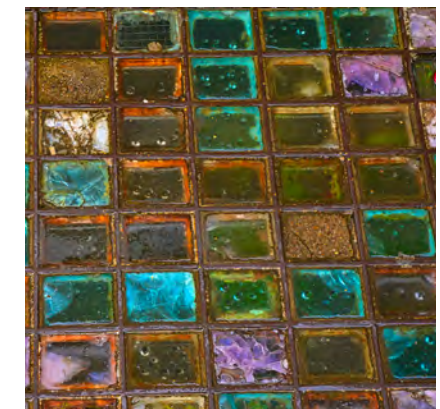
**SECTION 3 / Sensory/Play Precinct
Raleigh Street - Robb Street**



Kids play feature on existing (non heritage) light industrial blank wall. Opportunity for tree crates and kerb extension to extend the kids play area

















Kerb extension with new tree, elevated planter, benches, and kids musical features




Coloured glass pavement. Kerb extension on Hudsons Road only, with new formal pedestrian crossing

LEGEND

-  Existing Trees
-  Proposed Trees
-  Proposed Trees on Planters
-  Planters (with/without seating)
-  Rain Gardens
-  High Quality Paving (see Section 13)
-  Brick Pavement
-  Cobblestone
-  Raised pedestrian crossing / Threshold treatment
-  Historical References / panels
-  Raised intersection treatment with priority pedestrian crossings
-  Vertical landscape treatment (consultation with private owners of subject properties required)
-  Wayfinding Signage (indicative only)
-  Potential future Public Bus Route Stop



 Vertical landscape treatment along industrial building facades ~1.5-2m height. Tree crates to expand footpath in front of green walls

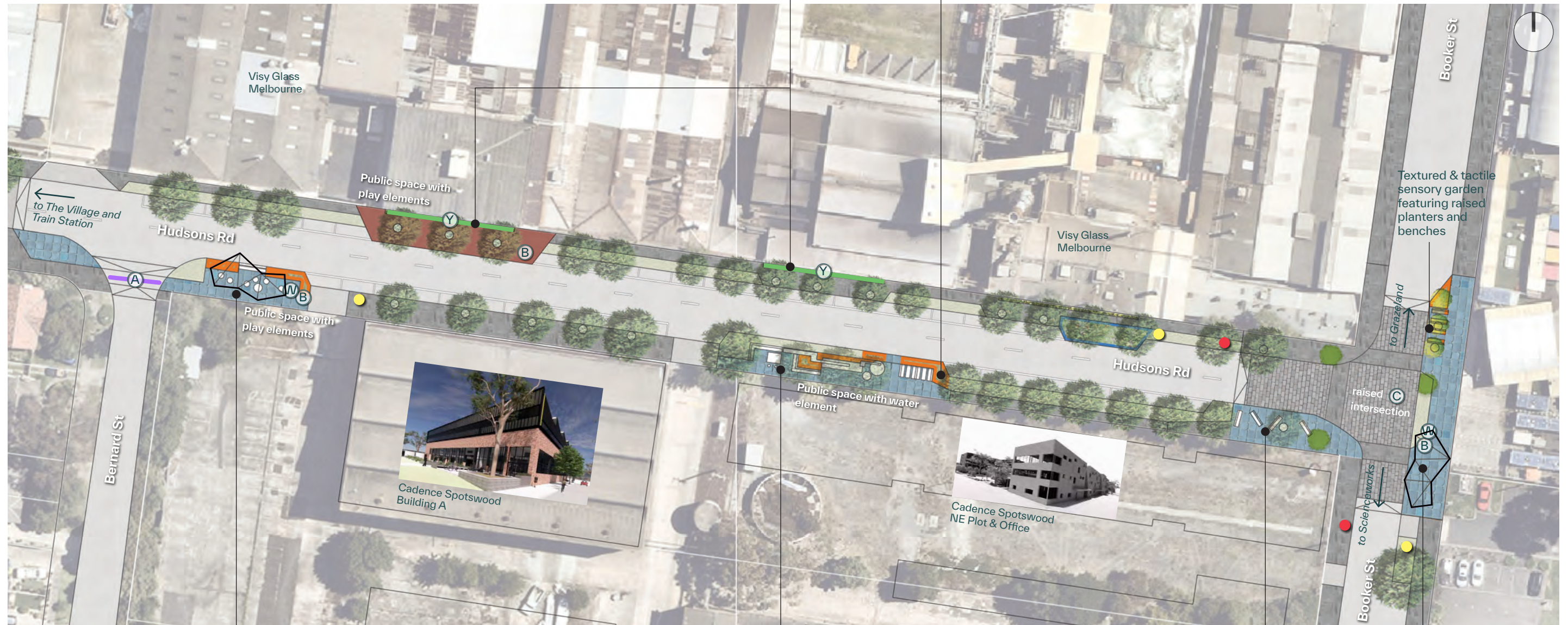


Seating area fronting future building access. Tables (or other flexible elements) for workers of the future and current industries and offices

Notes:

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- 2- Heritage panels and other digital technologies will be included in the design and their specific locations will depend on the stories being told

SECTION 4 / Sensory/Play Precinct
Bernard Street - Booker Street



Kids play elements with high planters as buffer to the street, benches and steel/glass structure marking the beginning of the industrial precinct

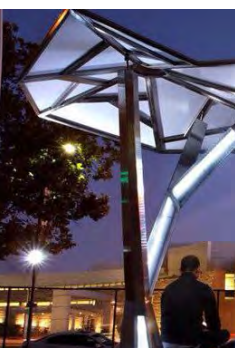


Water feature with industrial elements (beams, corten steel, rails), generating sound to distract from industrial and highway noises



Innovative benches (colours, shapes) in plaza area. Concrete/glass pavement

Steel/glass structure marking the beginning/end of Hudsons Road. High quality pavement, water fountain and benches

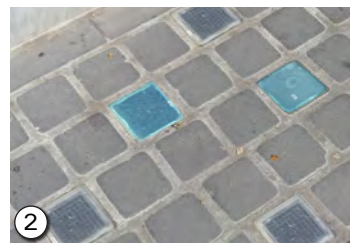


14. Footpath Design

Notes:
 1- This is a design concept only and is subject to change
 2- Heritage panels and other digital technologies will be included in the design and their specific locations will depend on the stories being told



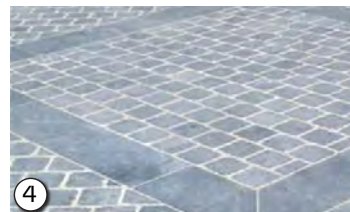
Dark and Light sawn bluestone with ballast stone/cobblestone with glass brick inserts



Red brick pavement



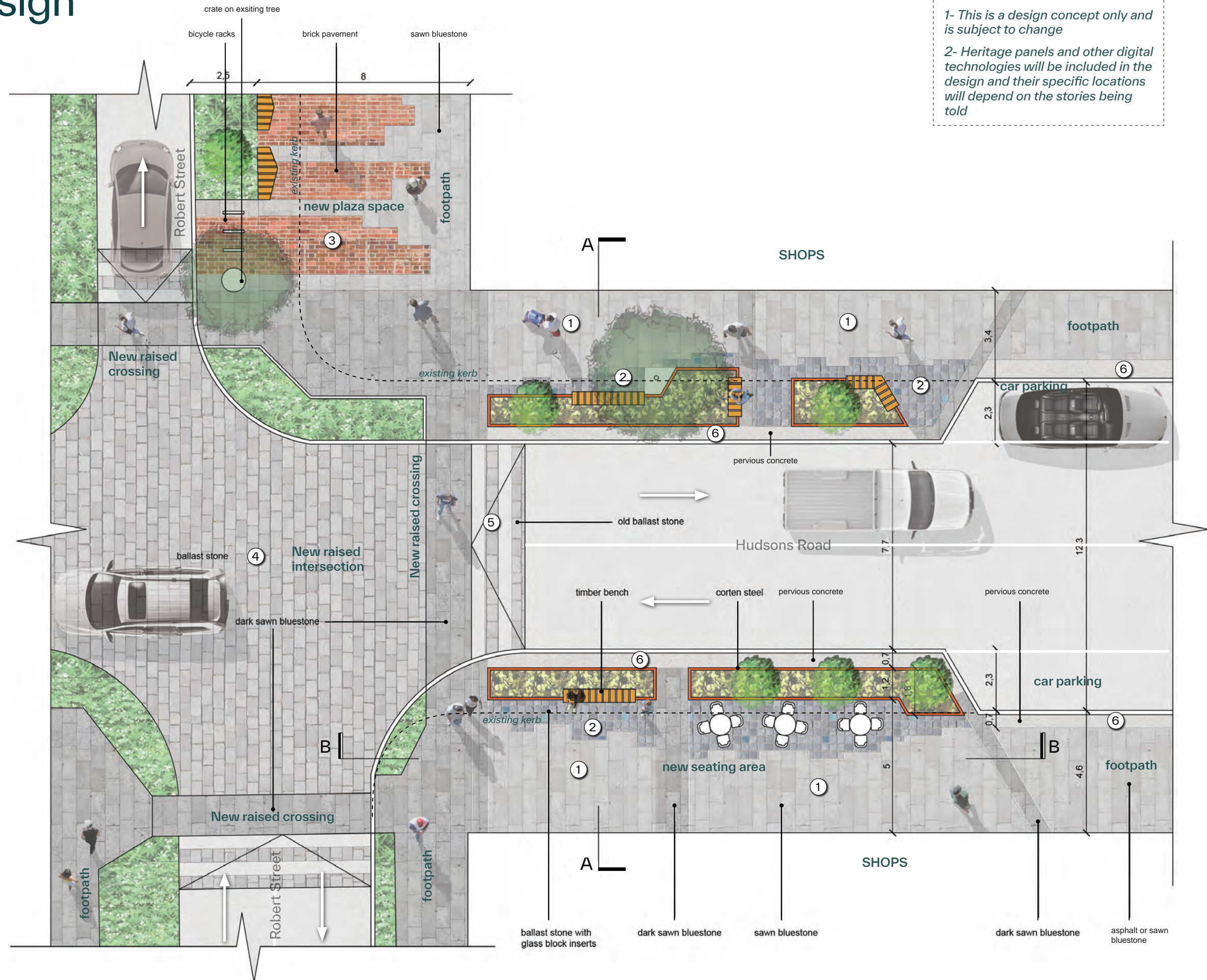
Ballast stone on raised intersections

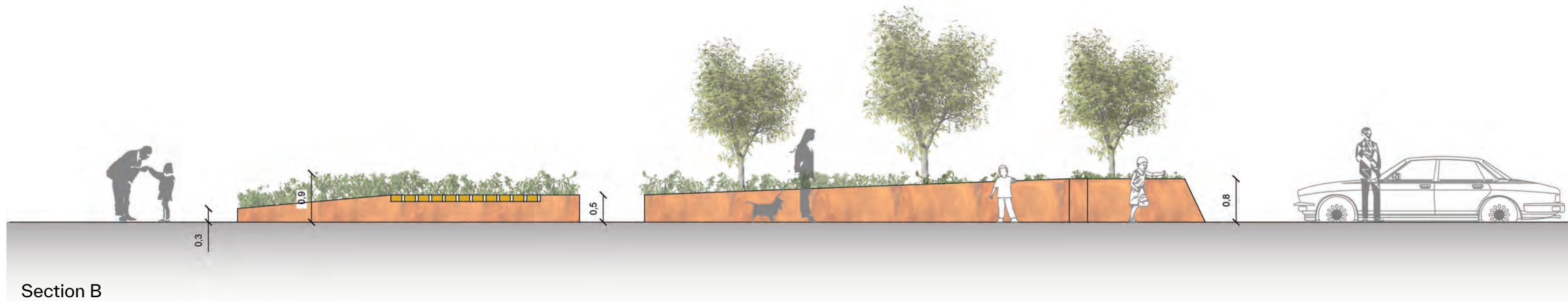
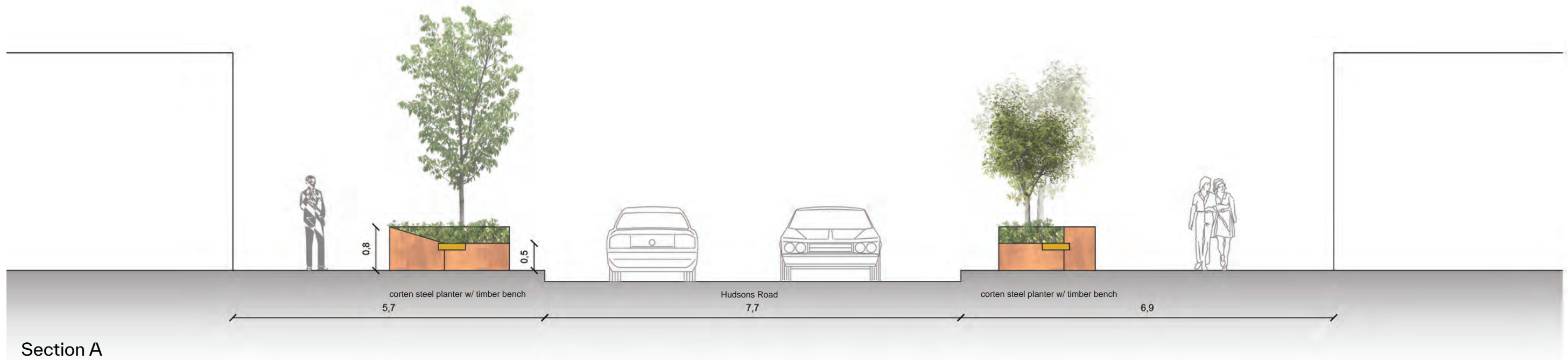


Ballast stone and dark sawn bluestone in carriageway ramps and pedestrian crossing



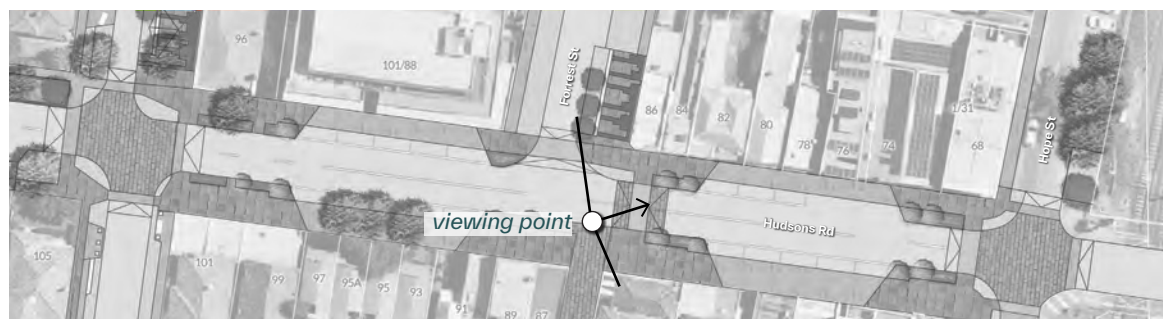
Pervious concrete as permeable pavement - recommended for areas next to kerbs (low traffic)





15. Visual Impressions

Hudsons Road Village



Artistic Visual impressions are subject to further detailed design and documentation



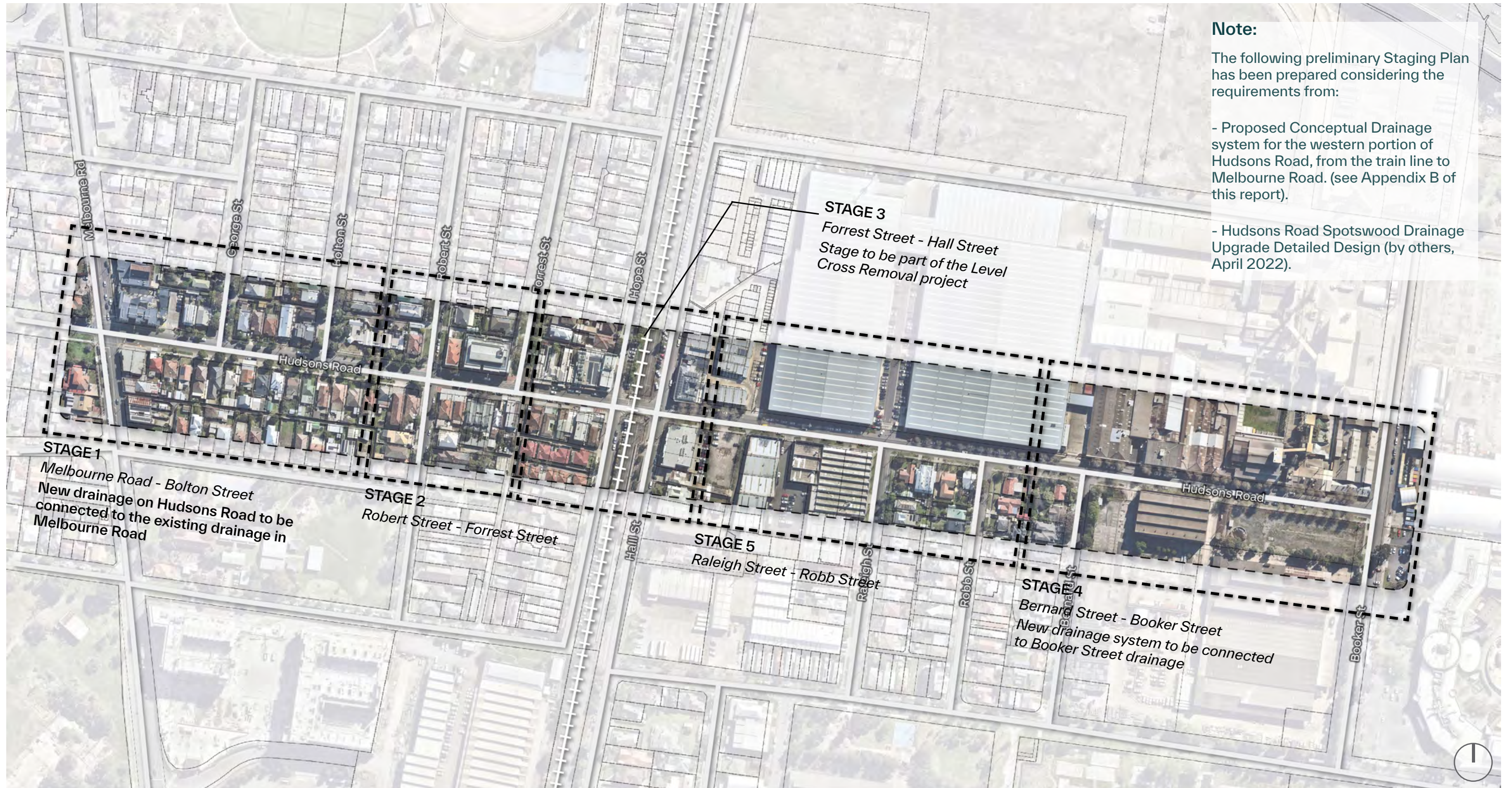
Artistic Visual impressions are subject to further detailed design and documentation

Hudsons Road and Raleigh Street - Sensory /Play Precinct



Artistic Visual impressions are subject to further detailed design and documentation

16. Preliminary Staging Plan



Staging Plan