Maylands Town Centre Streetscape Improvement Concept Plan

25 October 2023

Taylor Burrell Barnett

PJA

ASPECT Studios

Healthy Streets®

Prepared for

mainroads WESTERN AUSTRALIA

Document Information

Maylands Town Centre Streetscape
Revitalisation Concept Plan

Prepared for Main Roads WA

Prepared by:

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Revision	Status	Author	Approved by	Issue Date
1.0	Draft Issued to Client for Review	Eric Denholm	Ben De Marchi	09/09/2023
1.1	Final for Client Review	Eric Denholm	Ben De Marchi	17/10/2023
1.2	Issued for Public Exhibition	Eric Denholm	Ben De Marchi	25/10/2023

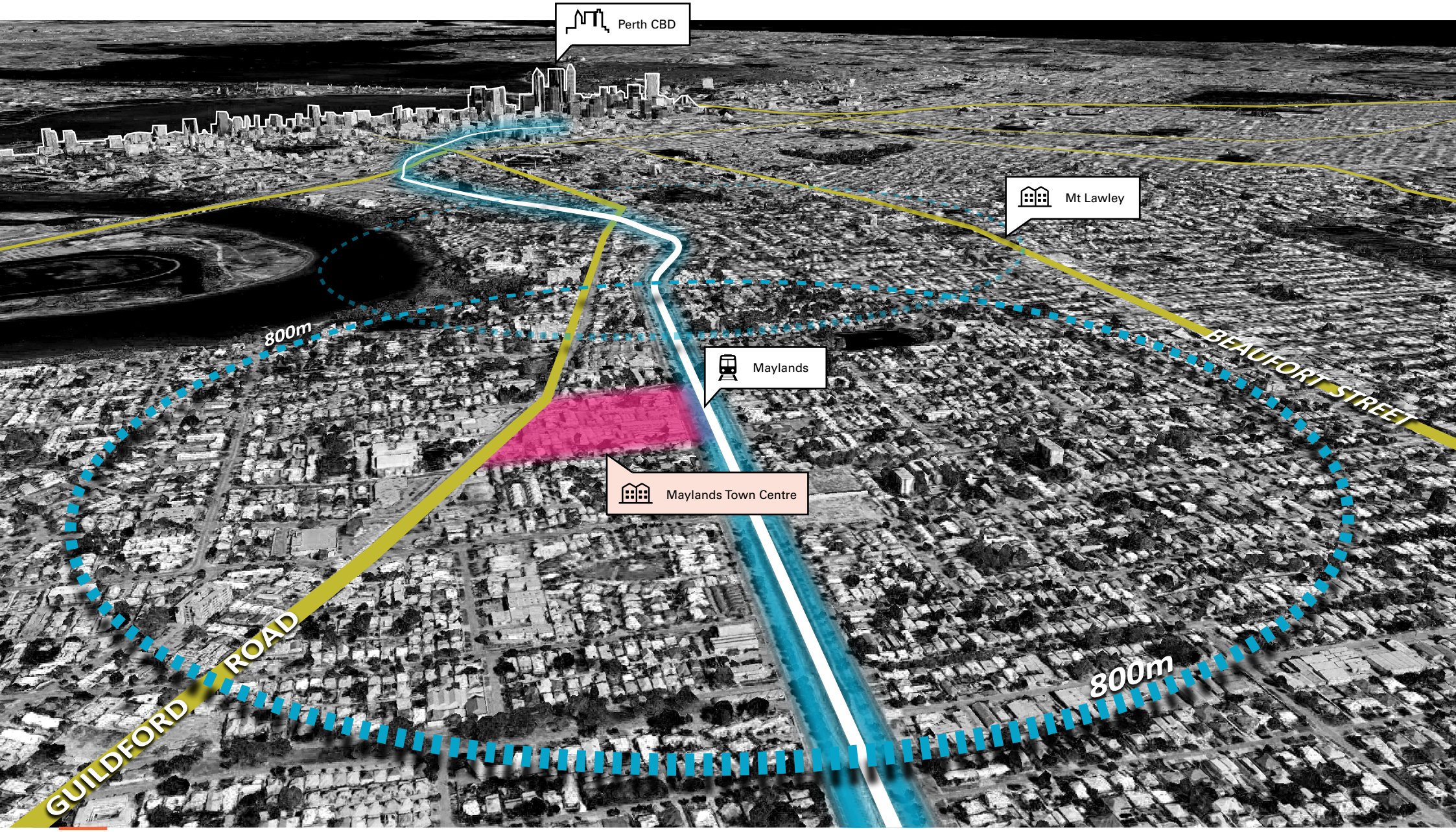
Contents

01 Background

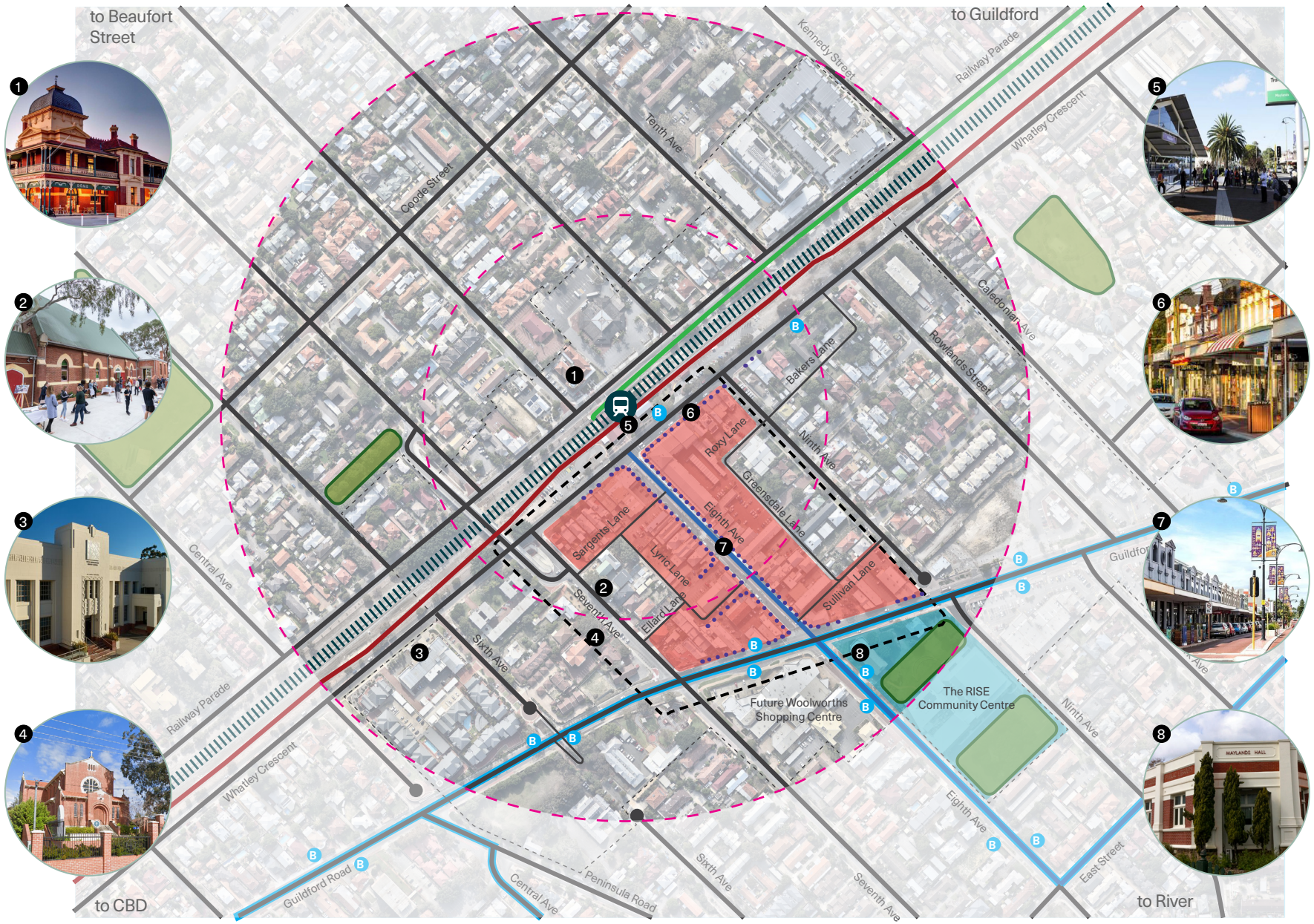
Context, Recent Studies, Consultation

Context

8 Minutes by Rail to Perth CBD



Local Context

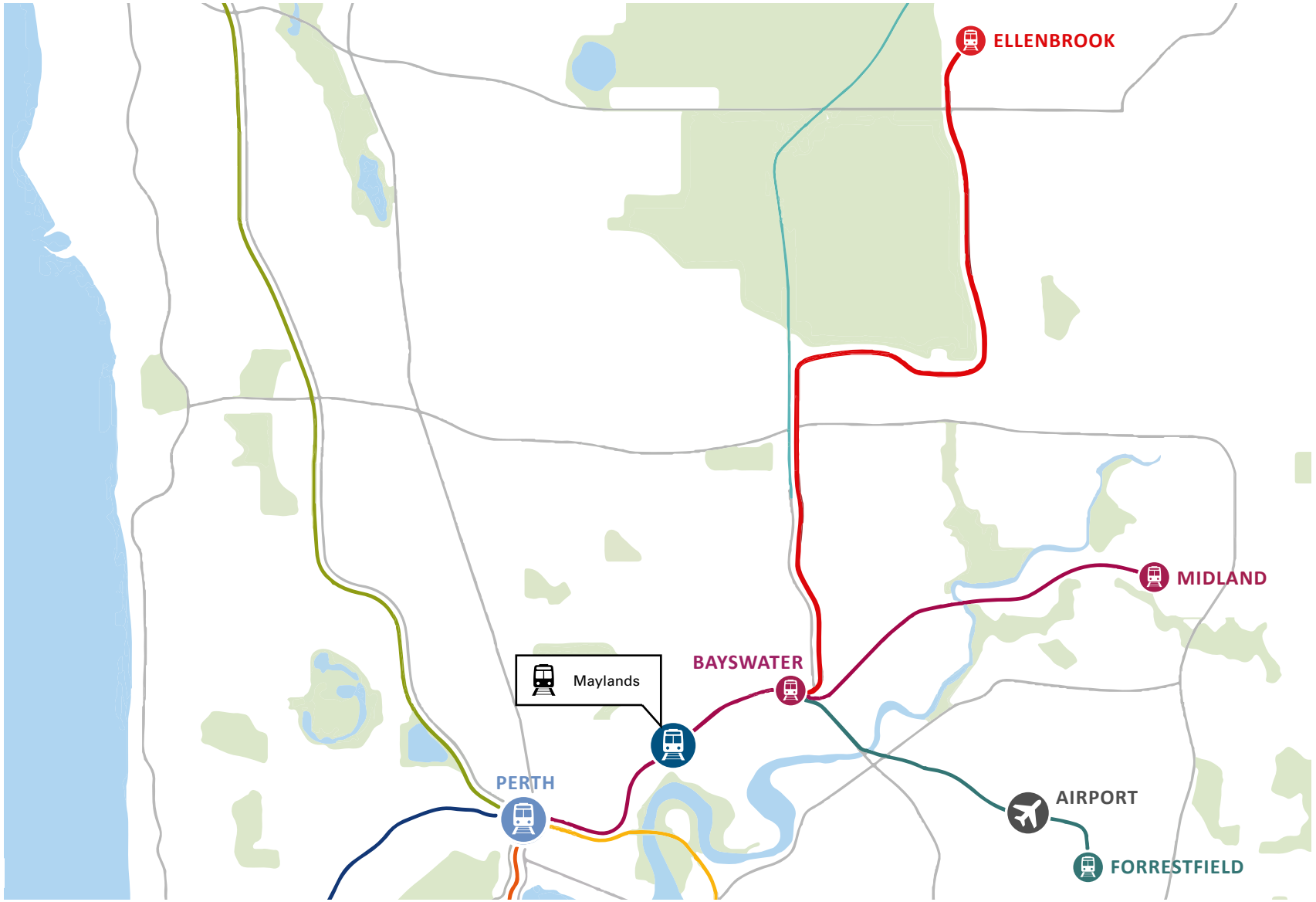


KEY

- Rail Network
- Road Network
- Local Bus Network
- Dedicated Cycle Path
- Principle Shared Path
- Secondary Cycling Route
- Maylands Activity Centre
- Main Street Precinct
- Civic Precinct
- The Site and Immediate Surrounds
- Green Space
- Active Streetscape
- 400m / 5min to 800m / 10min walk

METRONET

New Rail Lines Connecting Maylands



New Services

8 mins to Perth CBD

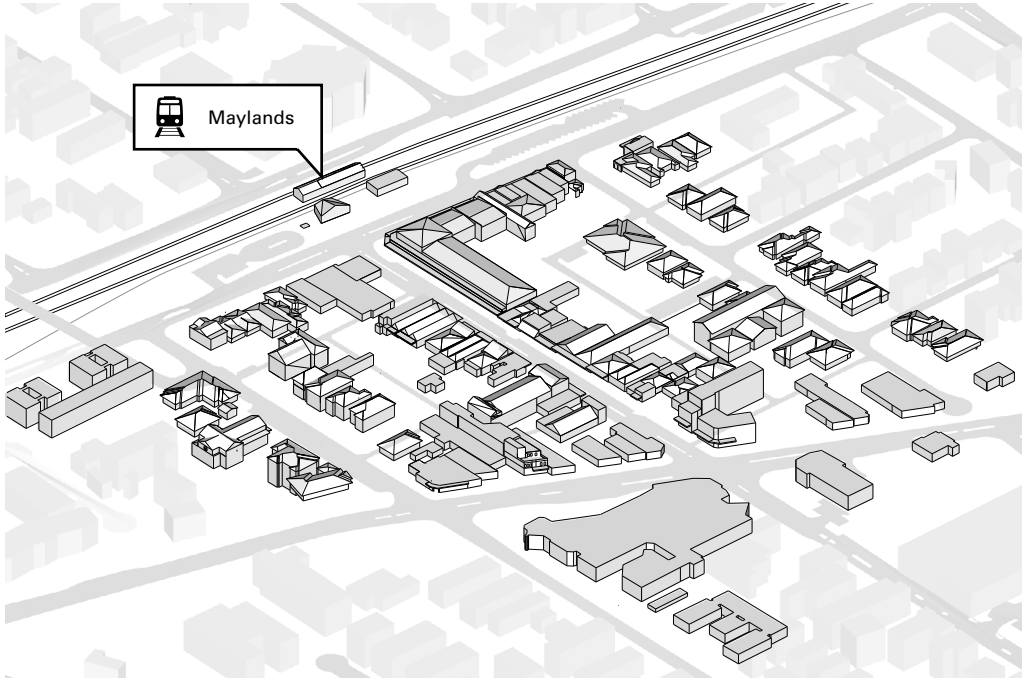
Airport Line Opened 9 October '22

Morley-Ellenbrook Line to open late 2024

Train Services every 3-4 mins in peak

Transit-Orientated Development

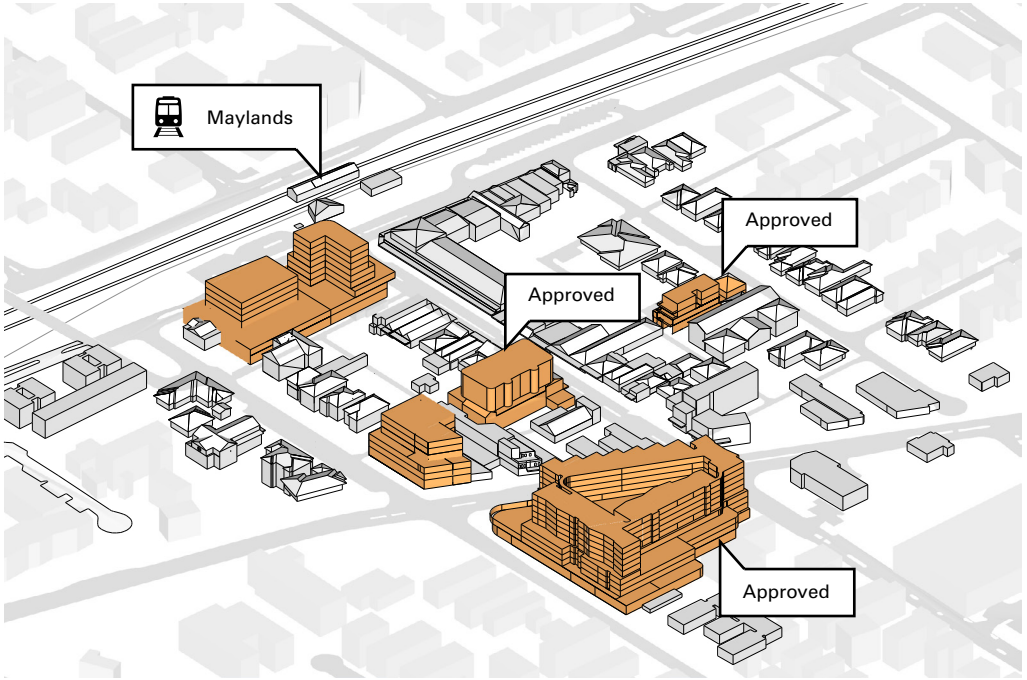
Maylands Today



1,500 Current Daily Boardings at Maylands Station

500 Existing Population within the Maylands Town Centre

Future Maylands TOD



Current Zoning allows up to 6 storeys (25m)

2,500 2031 Forecast Daily Boardings Maylands (with METRONET Airport and Ellenbrook Lines)

1,500+ Prime development sites ripe for redevelopment with capacity to accommodate 1,000 additional people close to public transport and within the Town Centre

Getting TOD Ready

Property Council Research Identifies Maylands in the Top 5 TOD Priority Precincts

"

Maylands shows promise in the future delivery of TOD, through a good balance of place and potential growth. The area is a strong performer in Amenity scoring, and from a planning framework perspective, is one of the sites most ready for TOD.

Land use mix: Existing commercial activity centre surrounding station, medium density dwellings in surrounding catchment

Planning status: Activity Centre Plan covers the immediate vicinity of the Station precinct. Commercial uses and residential development up to R60 is able to be developed under the Activity Centre Plan.

Key Opportunities for Maylands

Property Council recommendations to Government

- Acknowledge that all METRONET stations will not be viable to achieve their ultimate potential in the short-term, excluding Bayswater.
- Government investment should be targeted at high-value, high-opportunity TODs which are destinations to create an enabling environment that will encourage private sector investment and increased use of public transport.
- Collaboration is key. There must be a whole-of-government approach and engagement with private sector to integrating land-use transport, servicing and enabling investment to create the foundation for TOD investment.
- Consider a multi-faceted approach to incentives to assist the private sector overcome current barriers to TODs.
- Consider governance frameworks such as improvement plans and PPPs.
- The state government should work with local government to fund improved amenity initiatives, and invest in pedestrian facilities and connections, in high priority TOD locations.
- Planning frameworks should set clear goals, objectives and parameters without fixating on one 'acceptable outcome' at the expense of ignoring or not permitting alternative or innovative solutions.
- The DPLH need to lead and should set the vision for rail corridors and station precincts across the network, and assist in facilitating and trouble shooting across agencies.
- Don't lose sight of long-term outcomes for future TODs on METRONET.

DE-RISK
CREATE AMENITY
COLLABORATE

The most important things governments can do

- Have a clear vision
- Create amenity
- Offer built form choice
- Financial incentives
- Flexible acquisitions
- Identify a few priorities
- Understand the economics
- Provide certainty
- Collaborate
- Align agency KPIs
- Identify lead agency
- Support the Infrastructure Development Fund
- Advocate benefits
- Fast approvals
- Focus on destinations
- Reduce costs
- De-risk development and ensure service capacity

IDENTIFY PRIORITIES
BUILT FORM CHOICE
DESTINATION FOCUS
ALIGN AGENCY KPIS

Key Takeouts

Create Amenity

Align Agencies

Integrate land-use and transit

fund walking and cycling

State to take Lead

MAYLANDS FUTURE DEVELOPMENT

BY ASPECT STUDIO

CONSULTATION

DESIGNING WITH COMMUNITY AND STAKEHOLDERS

Maylands Healthy Streets Workshop 17 November 2022

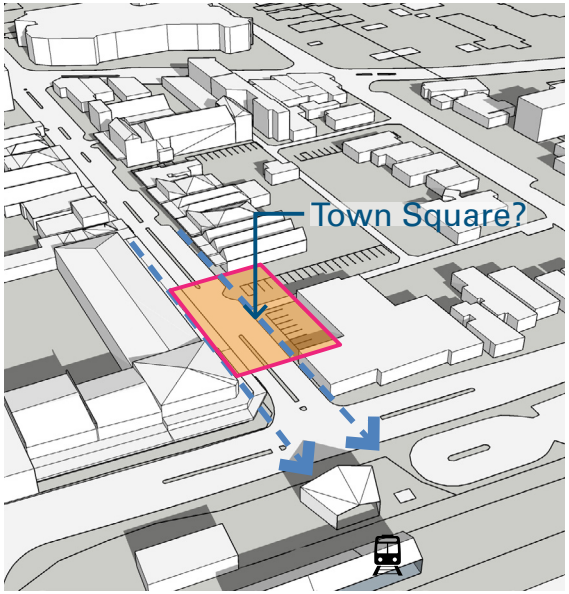
Draft Design Community Workshop 20 September 2023

PRELIMINARY OPTIONS

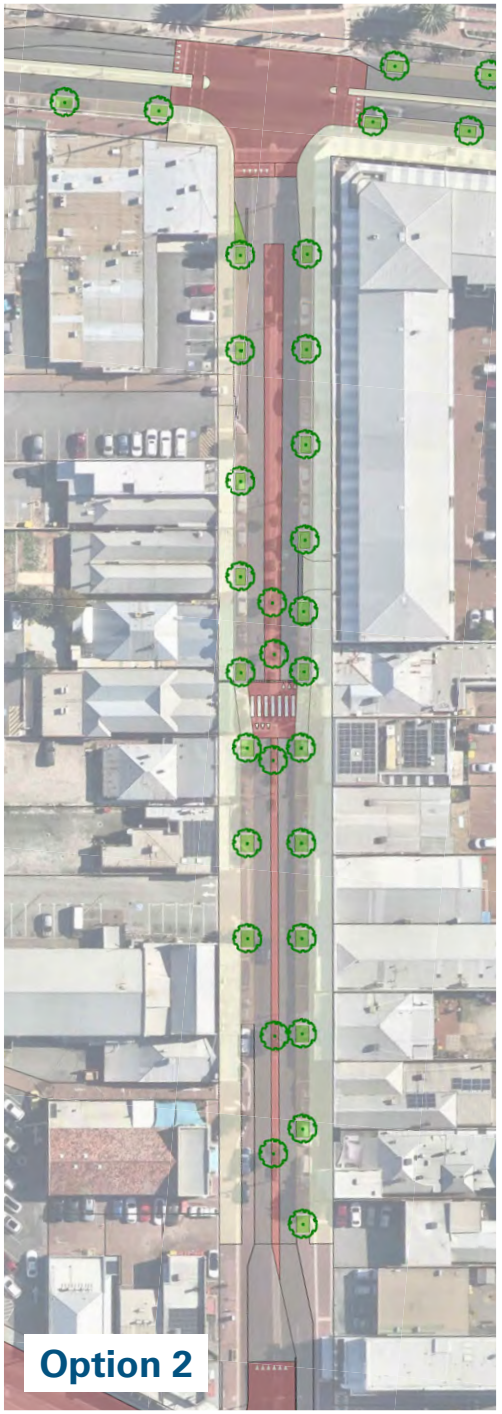
FOR EIGHTH AVENUE

Presented at 27 June 2023
Community Reference Group Meeting

Support to further progress Option 1 was strongly received from the community members.



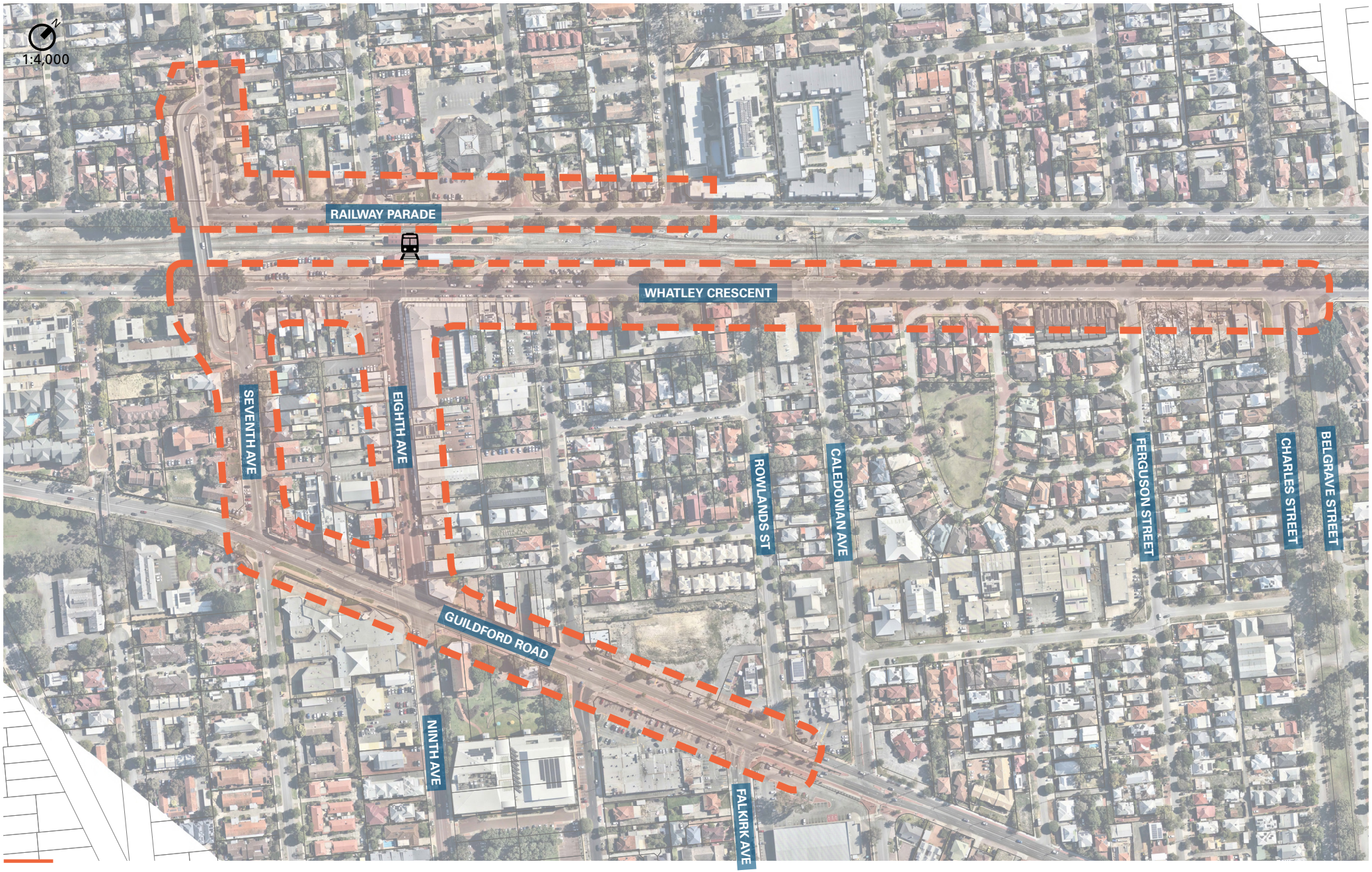
Emerging ideas from preliminary consultation



02 Concept Plan

Masterplan and Detailed Street Segment Plans, Cross-Sections and Healthy Streets Design Checks

Project Scope



Concept Masterplan

Eighth Avenue

Looking North-West toward Train Station

Whatley Crescent

Looking South-East Back Toward Train Station

Seventh Avenue

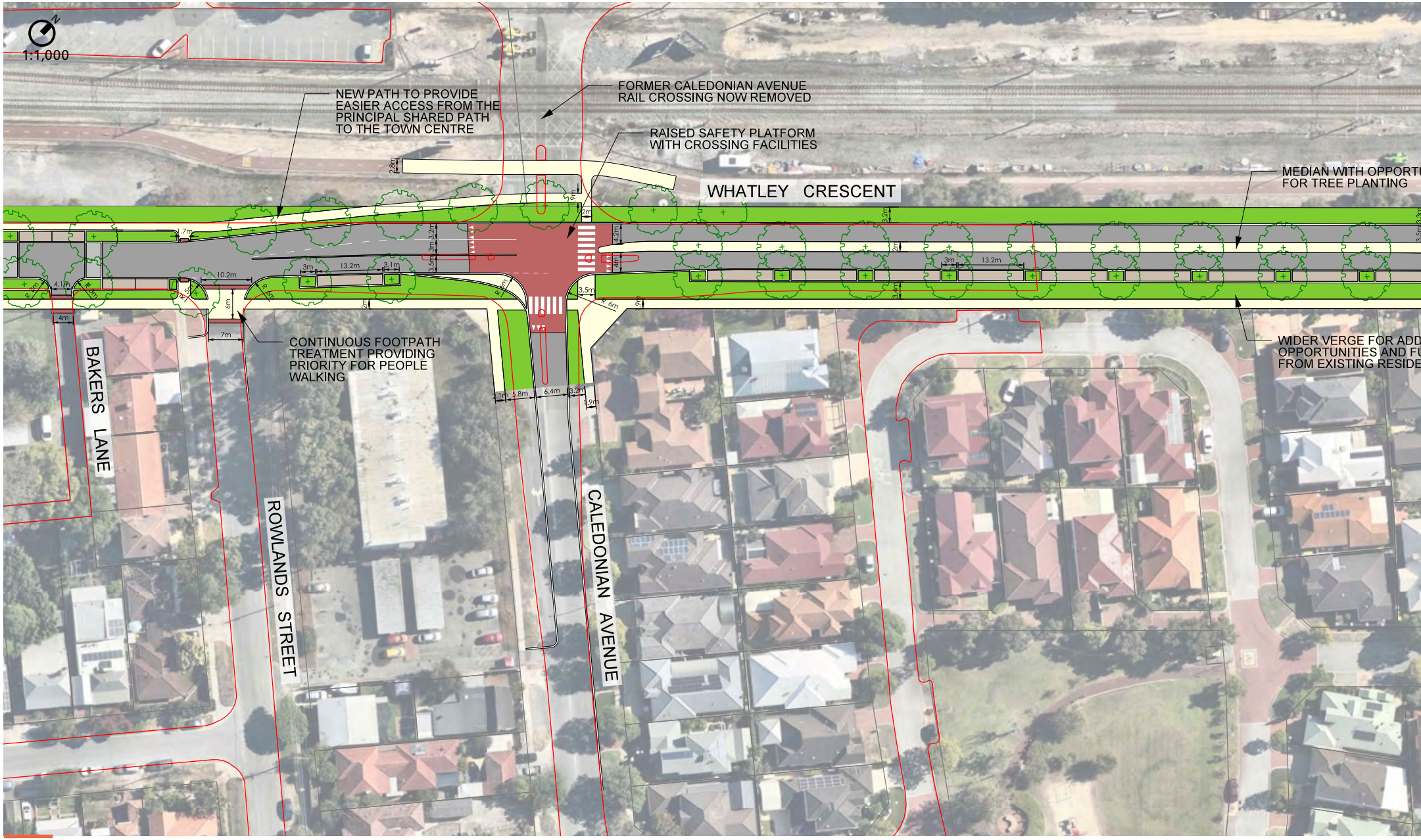
Looking South-East toward Guildford Road

Whatley Crescent

Birds Eye View over Eighth Ave Intersection

Whatley Crescent (North-East)

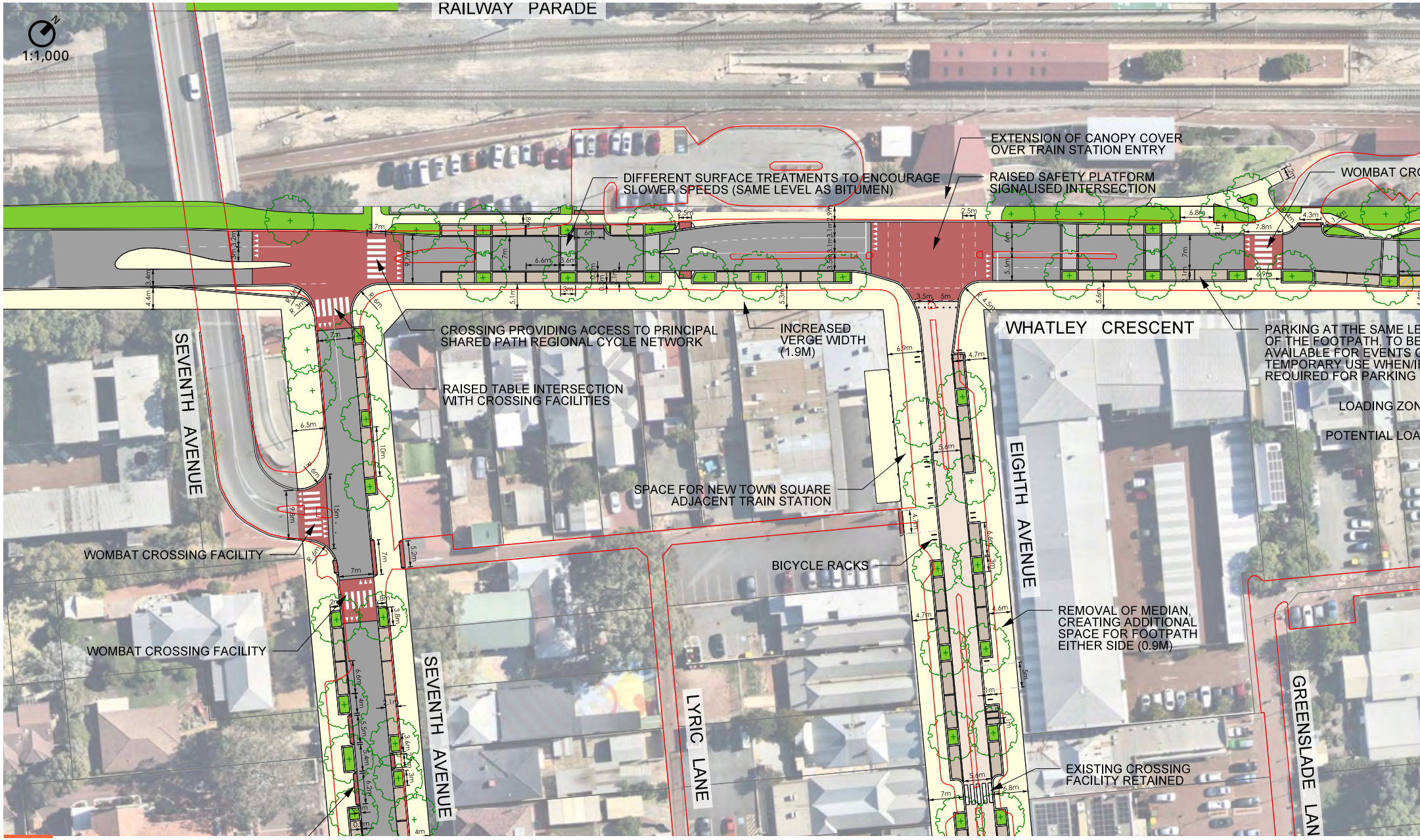
Proposed Concept



Existing Kerb Lines Shown in red

Whatley Crescent (South-West)

Proposed Concept

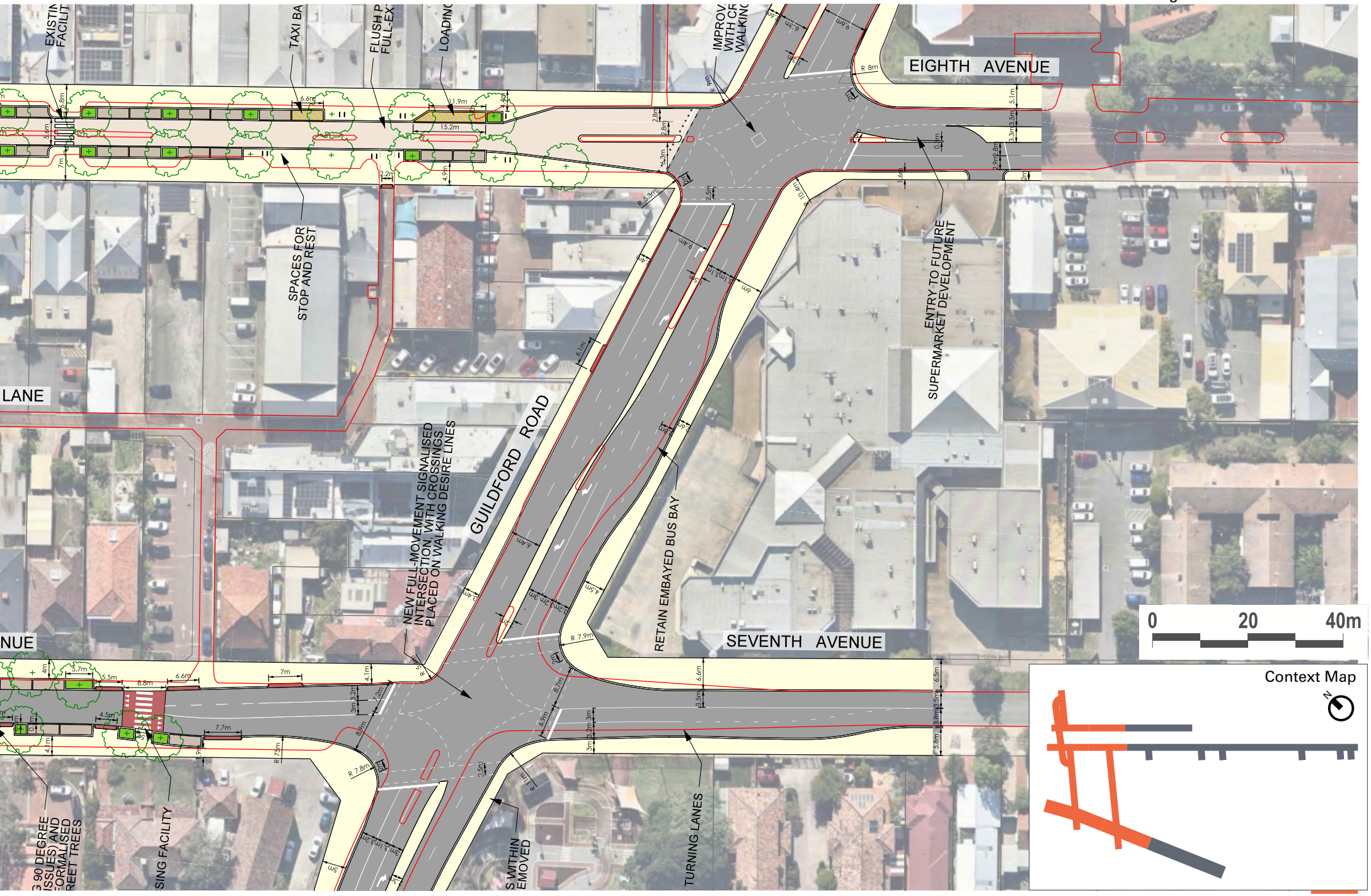


Existing Kerb Lines Shown in red

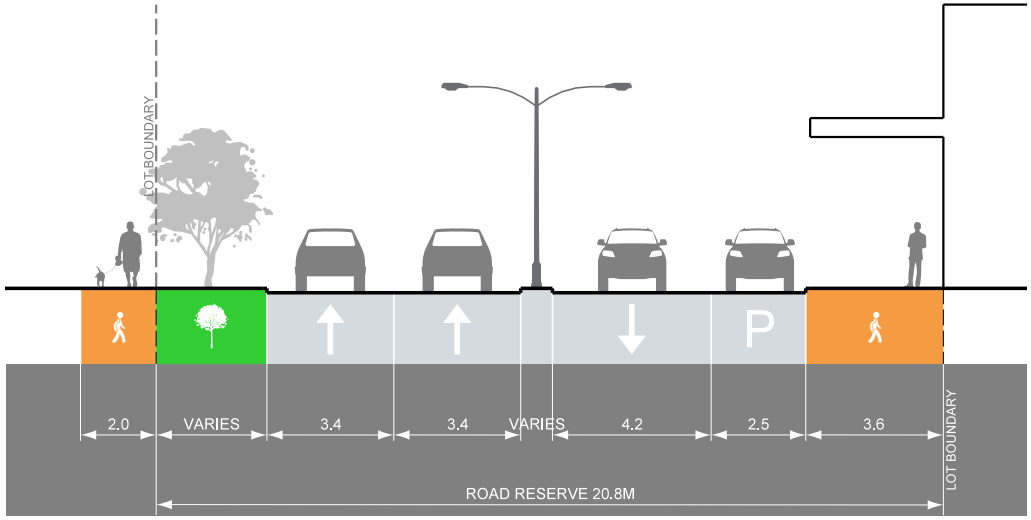
Town Centre

Proposed Concept

Existing Kerb Lines Shown in red



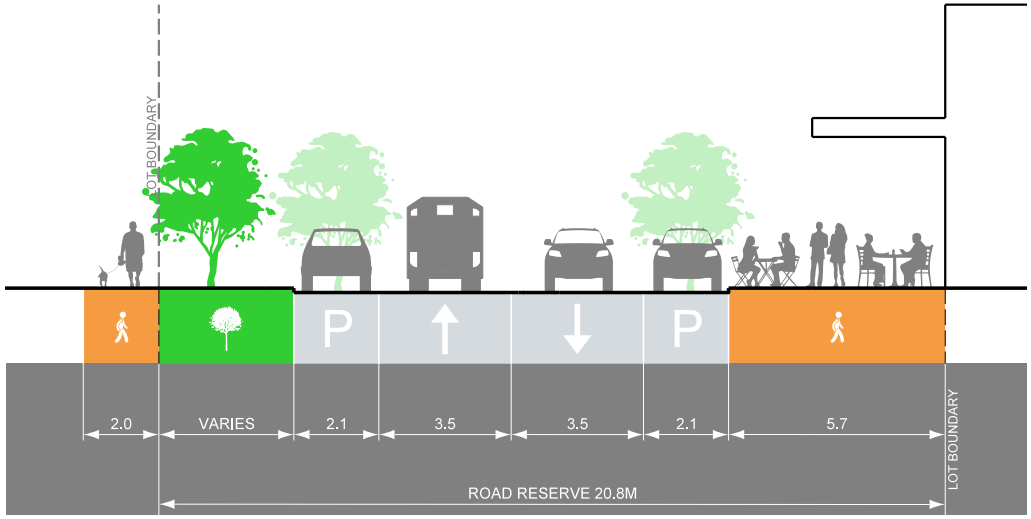
WHATLEY CRESCENT



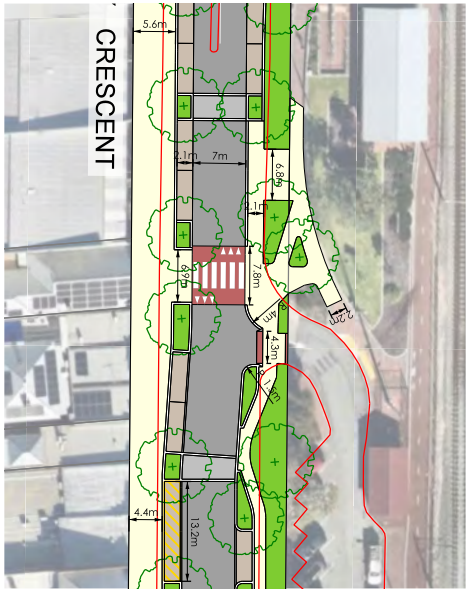
Existing Condition

Healthy Streets Design Check Score

Existing Condition



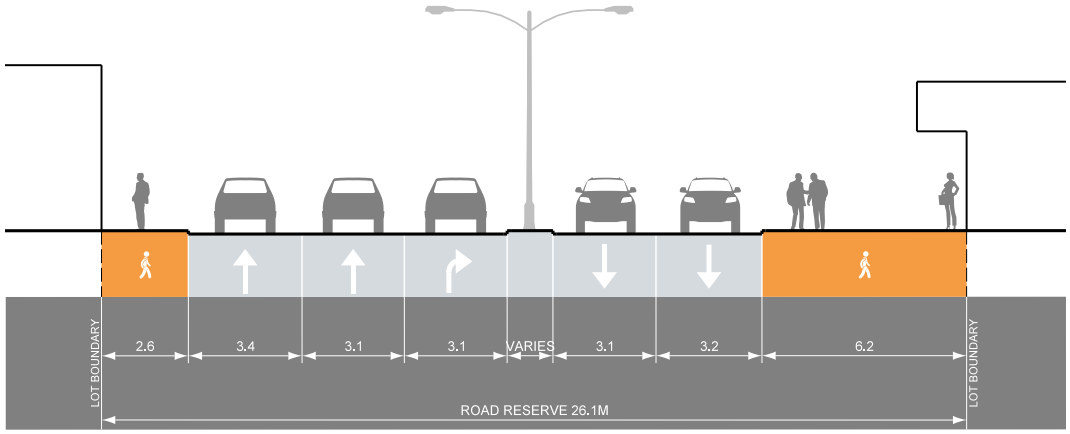
Proposed Cross-Section



Healthy Streets Design Check Score

Proposed Concept

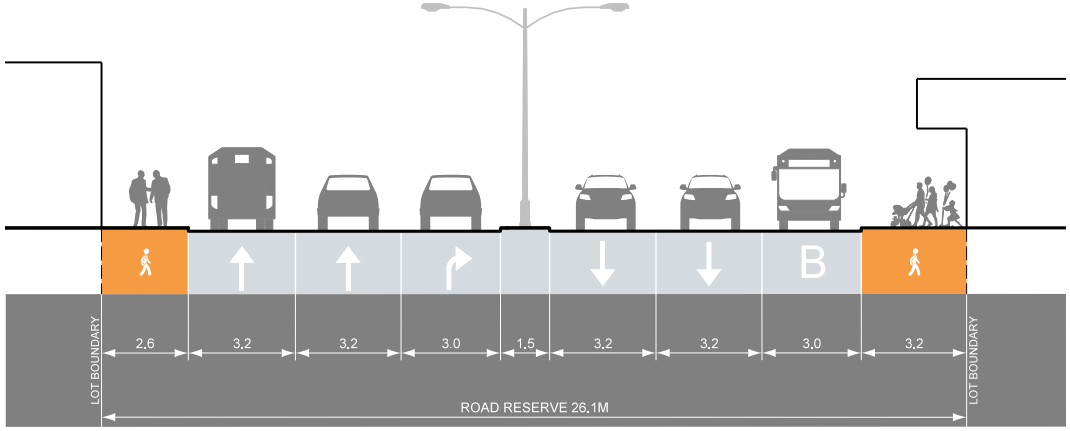
GUILDFORD ROAD



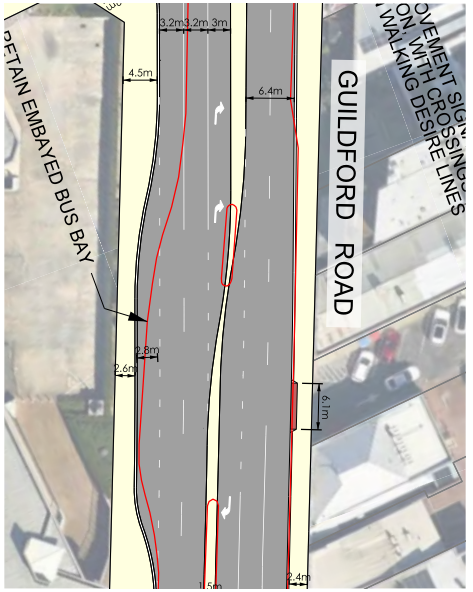
Existing Condition

Healthy Streets
Design Check Score

Existing Condition



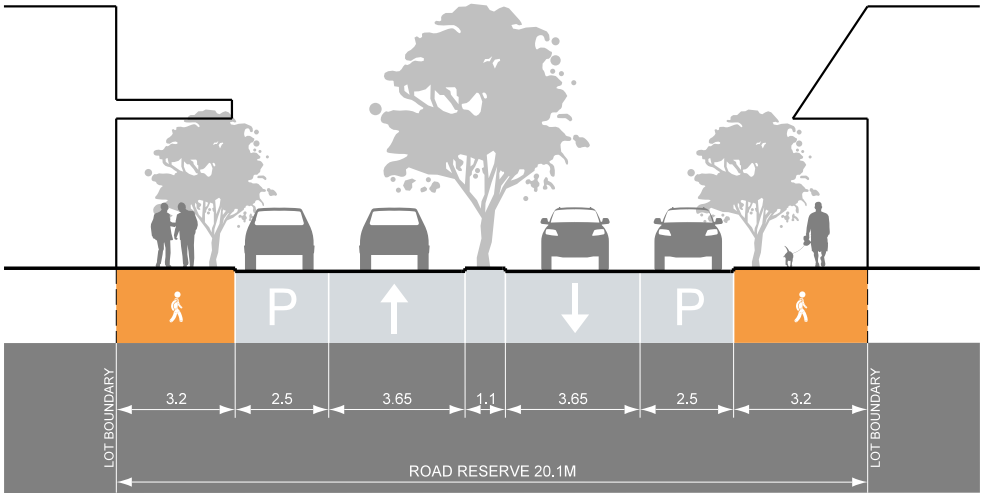
Proposed Cross-Section



Healthy Streets
Design Check Score

Proposed Concept

EIGHTH AVENUE



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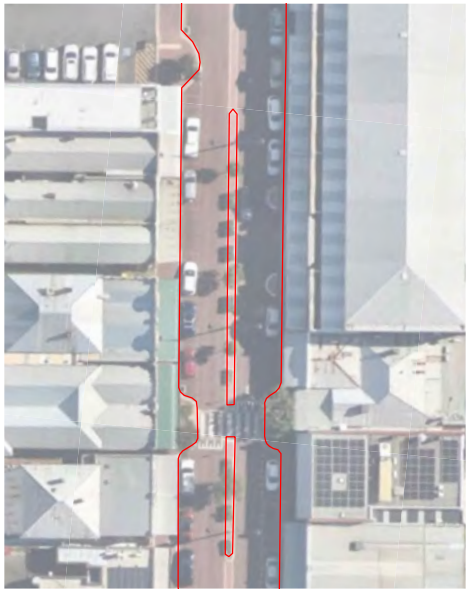
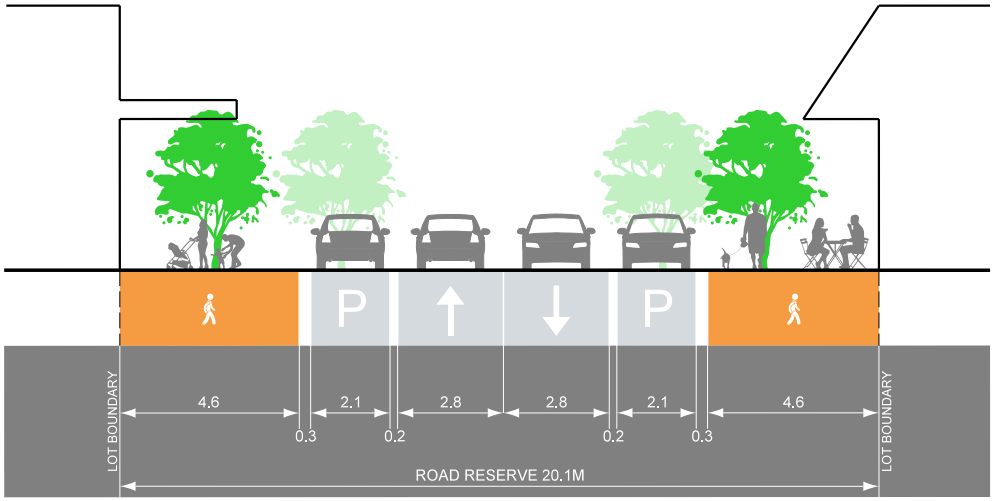


Healthy Streets
Design Check Score

Existing Condition



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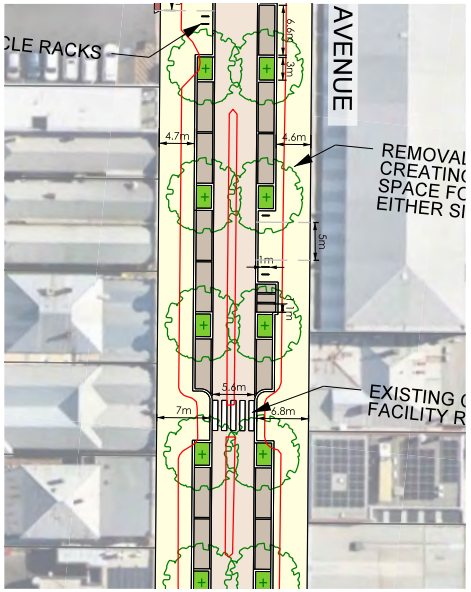
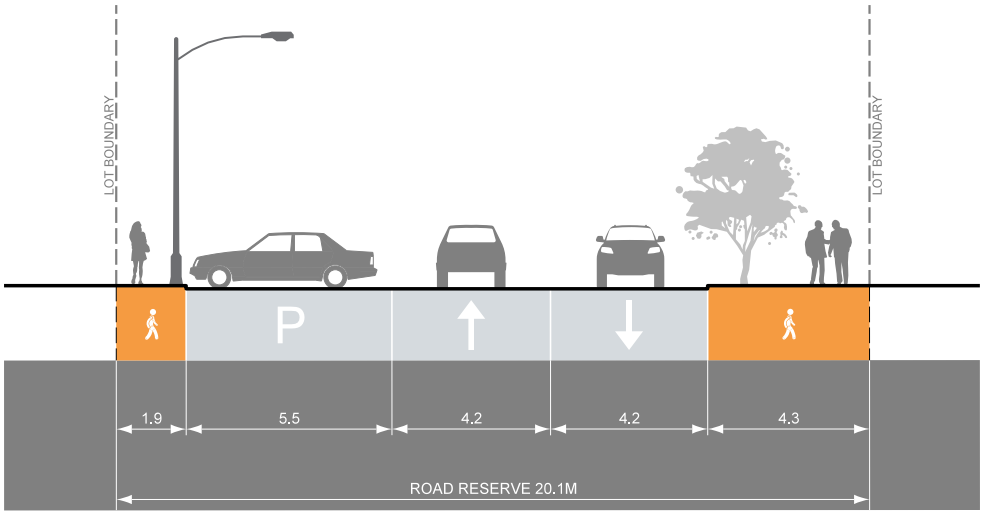


Healthy Streets
Design Check Score

Proposed Concept

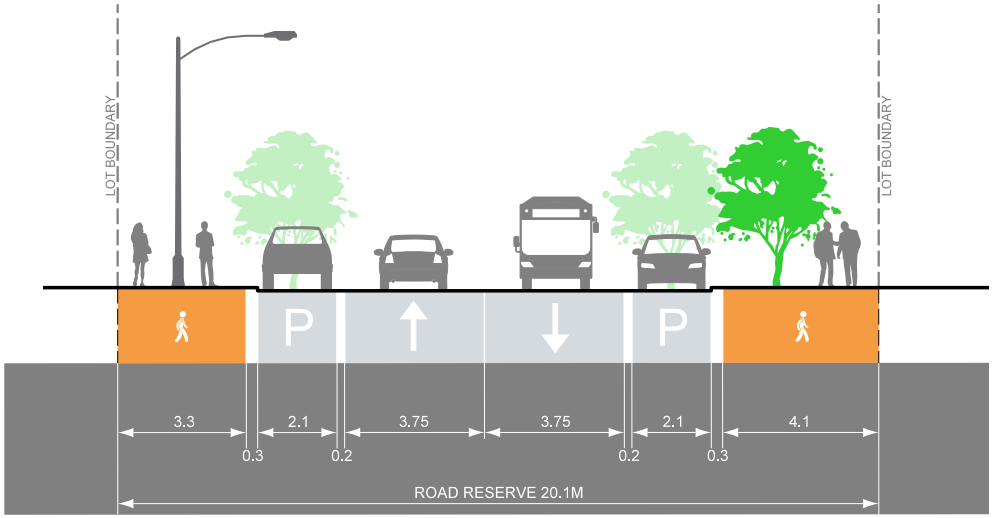
SEVENTH AVENUE



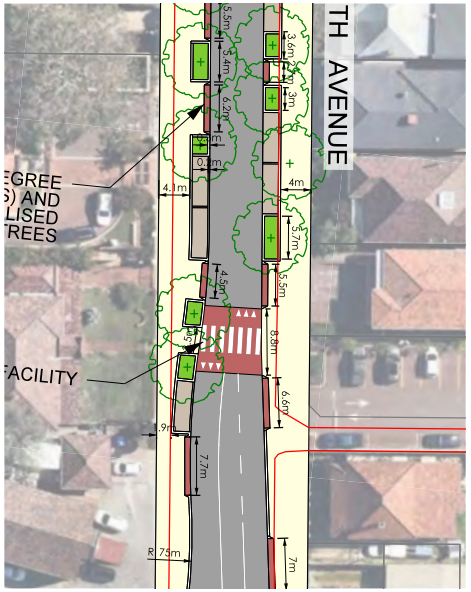
Existing Condition

Healthy Streets Design Check Score

Existing Condition



Proposed Cross-Section

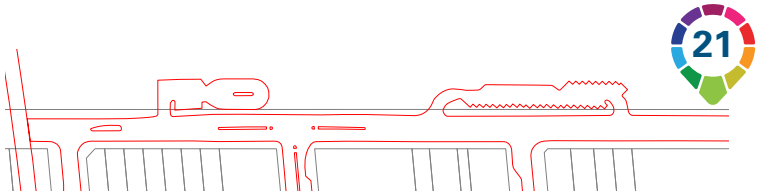


Healthy Streets Design Check Score

Proposed Concept

HEALTHY STREETS DESIGN CHECKS

WHATLEY CRESCENT



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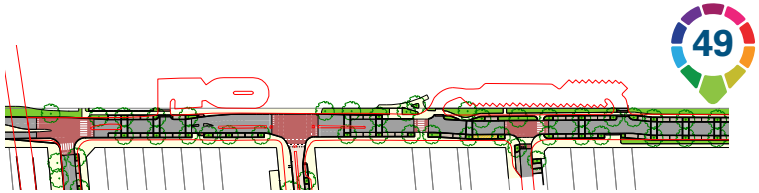

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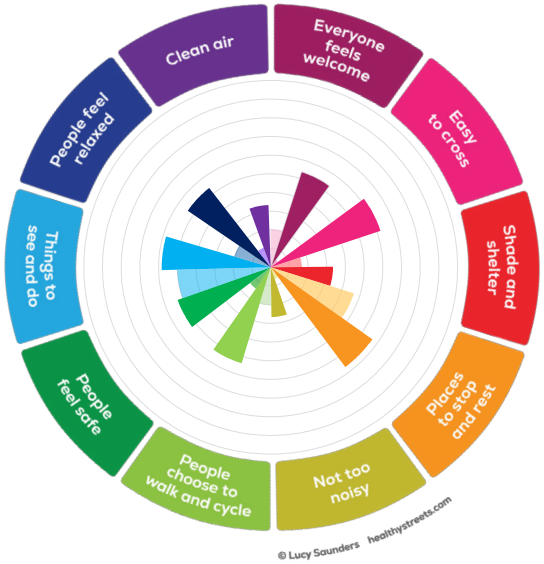
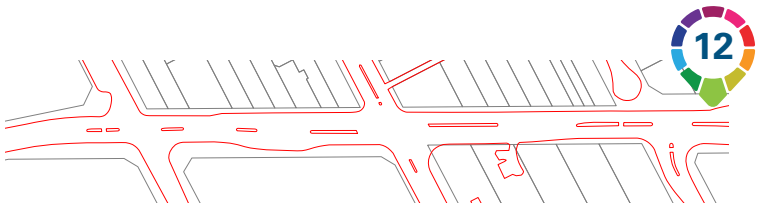


	Existing Layout Score	Proposed Layout Score
Healthy Streets Score	21	49
Everyone feels welcome	20	54
Easy to cross	5	62
Shade and shelter	17	33
Places to stop and rest	47	67
Not too noisy	7	27
People choose to walk and cycle	20	54
People feel safe	14	53
Things to see and do	50	58
People feel relaxed	20	54
Clean air	11	33

GUILDFORD ROAD



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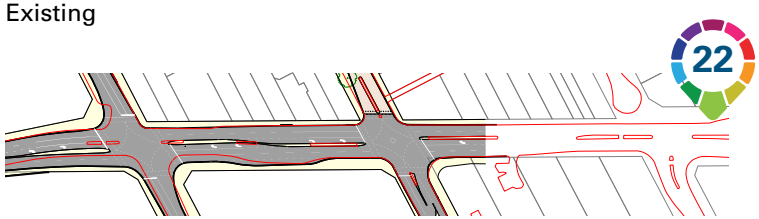

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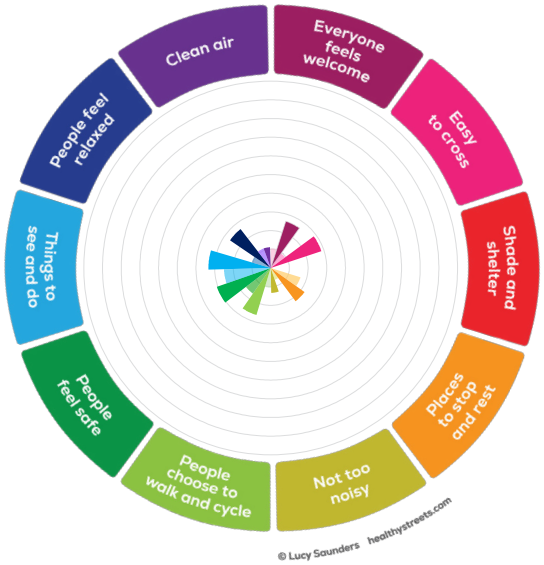
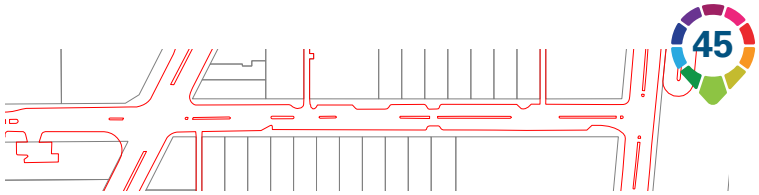


	Existing Layout Score	Proposed Layout Score
Healthy Streets Score	12	22
Everyone feels welcome	11	26
Easy to cross	10	29
Shade and shelter	0	0
Places to stop and rest	17	22
Not too noisy	7	13
People choose to walk and cycle	11	26
People feel safe	17	31
Things to see and do	25	33
People feel relaxed	11	26
Clean air	11	11

EIGHTH AVENUE



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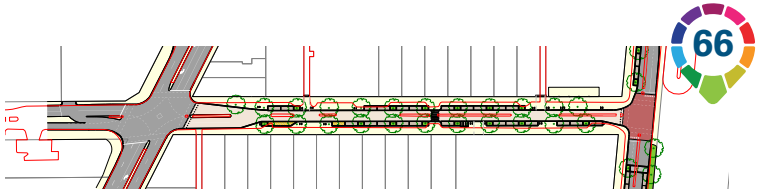
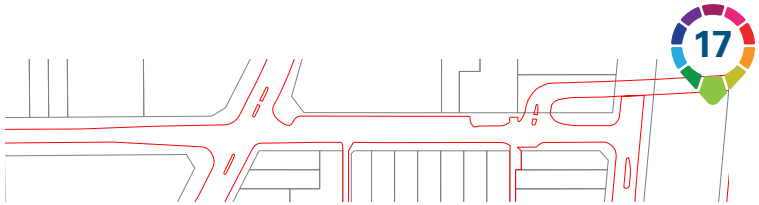


Proposed

	Existing Layout Score	Proposed Layout Score
Healthy Streets Score	45	66
Everyone feels welcome	43	69
Easy to cross	52	67
Shade and shelter	17	33
Places to stop and rest	47	87
Not too noisy	53	67
People choose to walk and cycle	43	69
People feel safe	50	69
Things to see and do	50	67
People feel relaxed	43	69
Clean air	56	67

SEVENTH AVENUE



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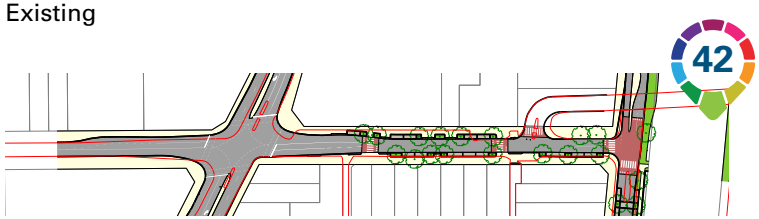

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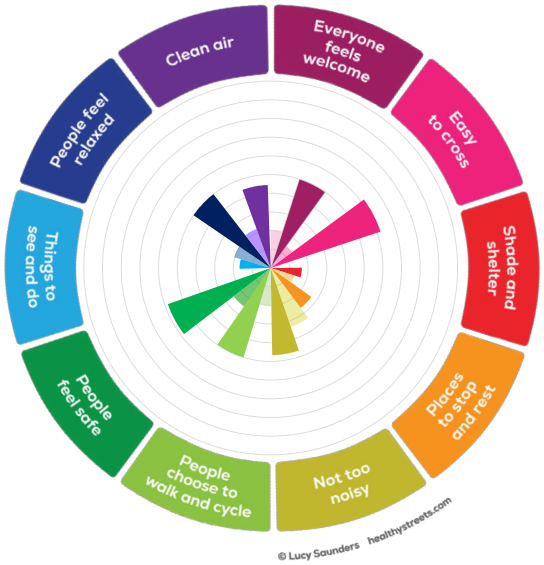


	Existing Layout Score	Proposed Layout Score
Healthy Streets Score	17	42
Everyone feels welcome	20	50
Easy to cross	14	62
Shade and shelter	0	17
Places to stop and rest	13	27
Not too noisy	33	47
People choose to walk and cycle	20	50
People feel safe	25	58
Things to see and do	0	17
People feel relaxed	20	50
Clean air	22	44

03 Technical Considerations

Car Parking, Speed Zoning, Swept Paths and Servicing


STAR SWISS

CAR PARKING
IMPACT ON SUPPLY

40-50%
Typical car parking occupancy rate

During daylight hours for Maylands Town Centre.
No major difference between weekends and weekdays.

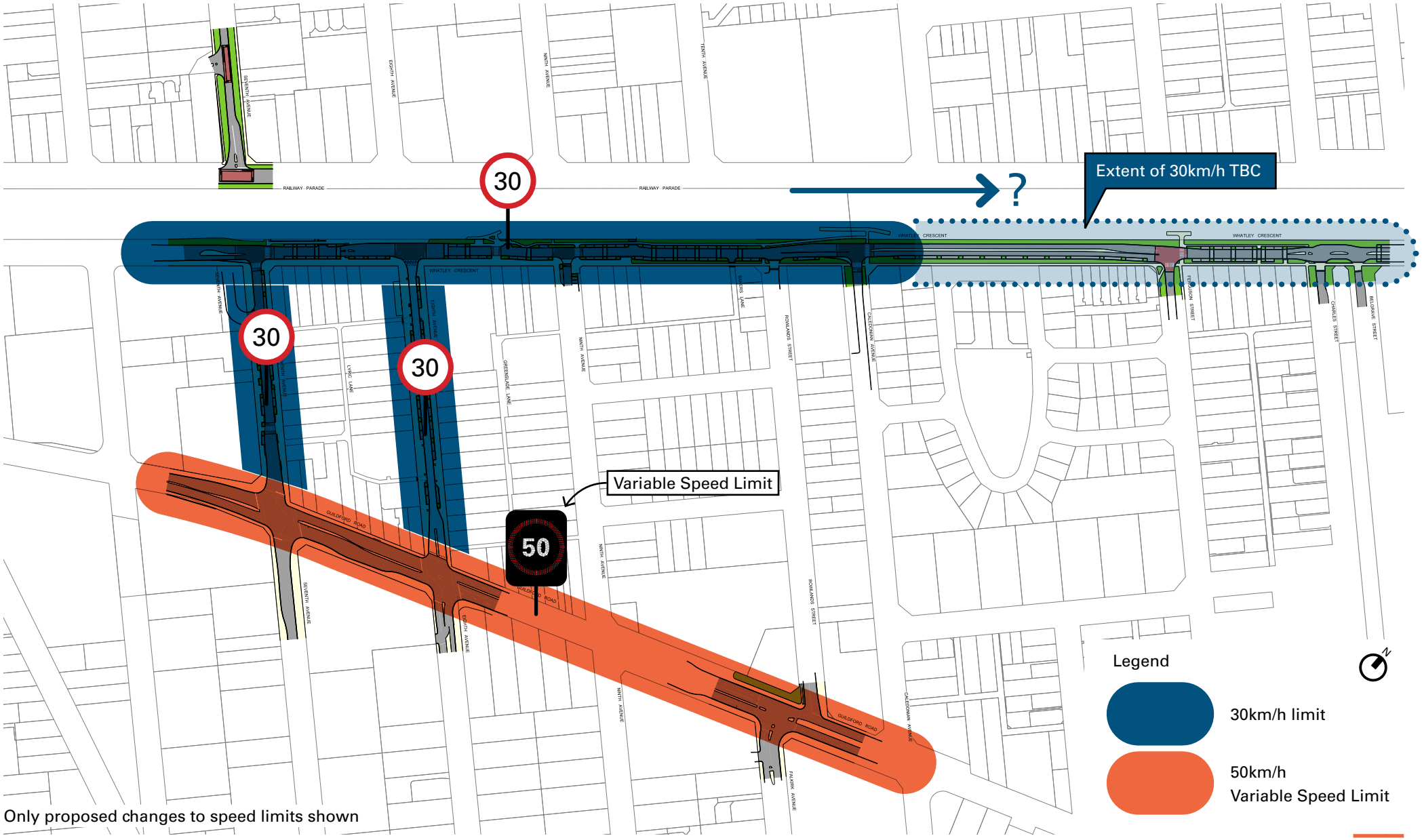
Source: City of Bayswater, Maylands Car Parking Strategy (2018)

Ref	Road Section	Parking Bay Quantity			Notes
		Before	After	Difference	
1	Seventh Ave, between Guildford Rd and Whaltley Cr	30	13	-17	Before includes 2 disabled bays.
2	Eighth Ave, between Guildford Rd and Whaltley Cr	33	23	-10	After includes x3 m/c bays
3	Whatley Cr, between Seventh and Eigth Ave	9	12	3	
4	Maylands Train Station Car Park	59	96	37	"Before & After includes 2 disabled bays. Before bays estimated due to unmarked car park."
5	Whatley Cr, between Eigth Ave and Caledonian Ave	34	39	5	Before bays estimated due to unmarked bays on northern side. Clearway and popular parking areas accounted for.
6	Whatley Cr, between Caledonian Ave and Belgrave St	Assumed no parking in this section	38	38	
	Totals	**165**	**221**	**56**	**x56 Bay Increase Overall**

Recommended timed parking locations
from Maylands Car Parking Strategy (2018)

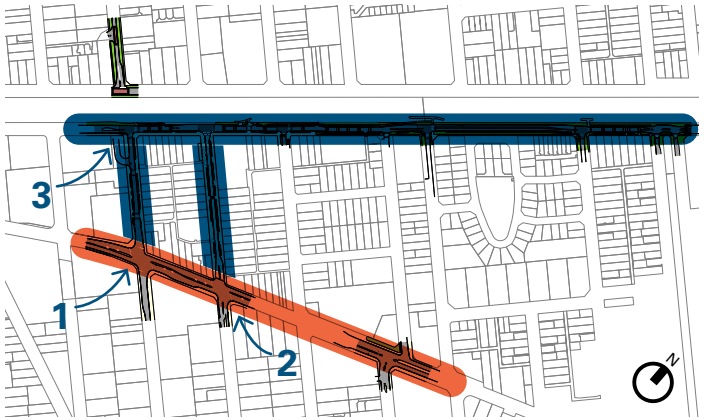
SPEED ZONING

PROPOSED SPEED LIMITS

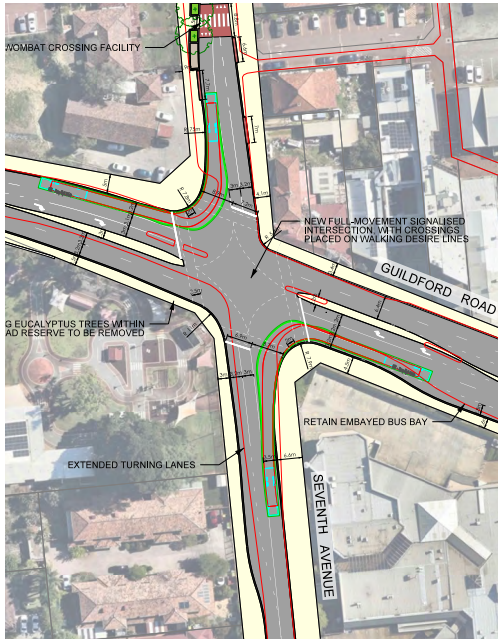


Only proposed changes to speed limits shown

SWEPT PATHS
TESTING DESIGN VEHICLE



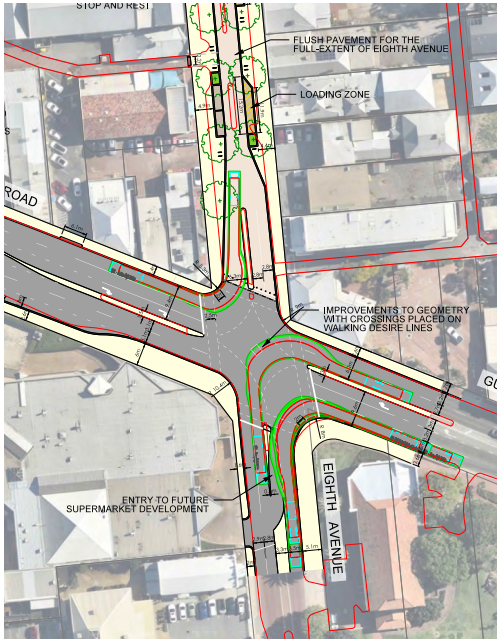
1



Left-in movements
Guildford Road and Seventh Avenue

12.5m Heavy Rigid Vehicle

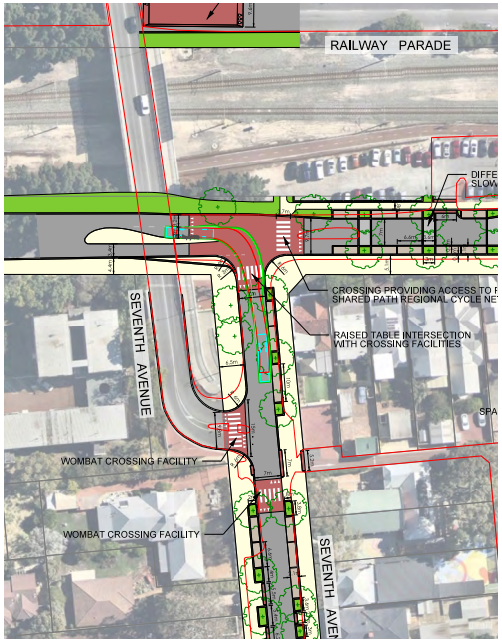
2



Left-in movements
Guildford Road and Eighth Avenue

12.5m Heavy Rigid Vehicle
(8.8m Medium Rigid Vehicle for left-in turn only Guildford to Eighth)

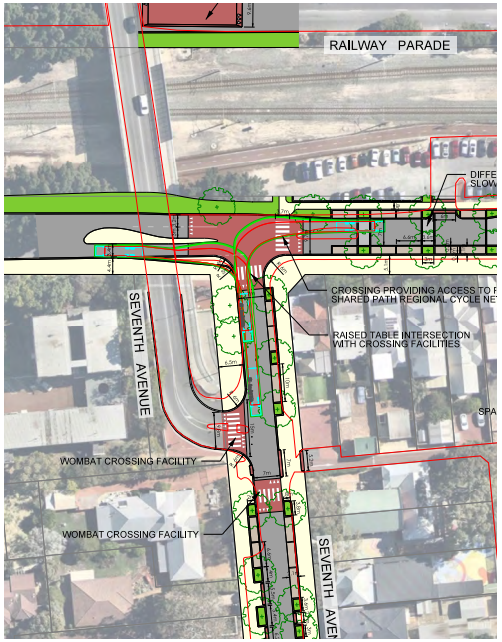
3a



Right-in movements
Whatley Crescent and Seventh Avenue

12.5m Heavy Rigid Vehicle

3b

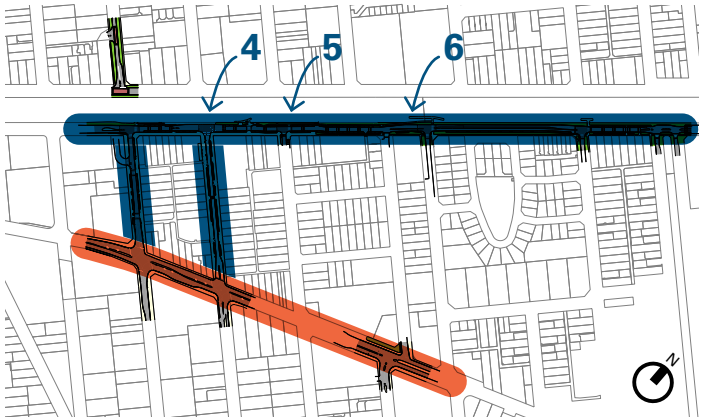


Left-out / Right-out movements
Whatley Crescent and Seventh Avenue

12.5m Heavy Rigid Vehicle

0 20 40m

SWEPT PATHS
TESTING DESIGN VEHICLE



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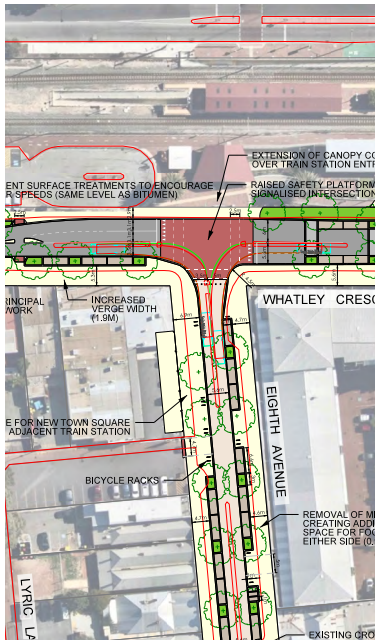
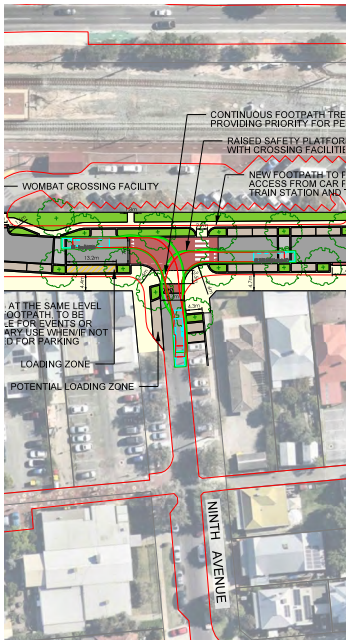


All movements

Whatley Crescent and Eighth Avenue

8.8m Medium Rigid Vehicle

5

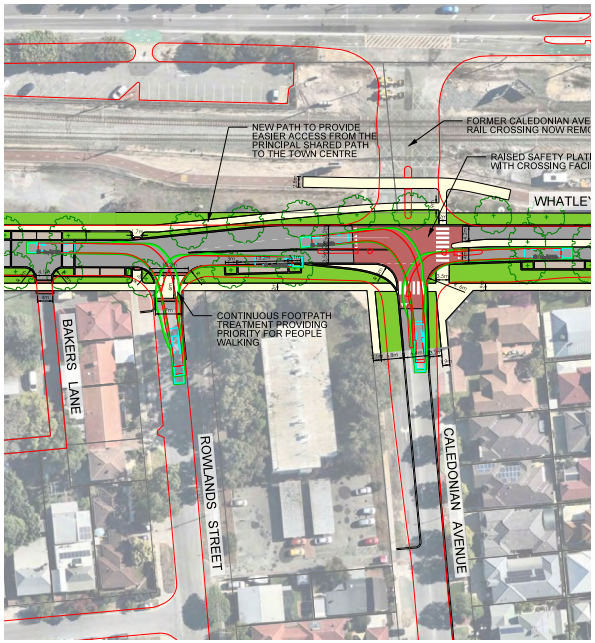


Left-in / right-in movements

Whatley Crescent and Ninth Ave

12.5m Heavy Rigid Vehicle

6a

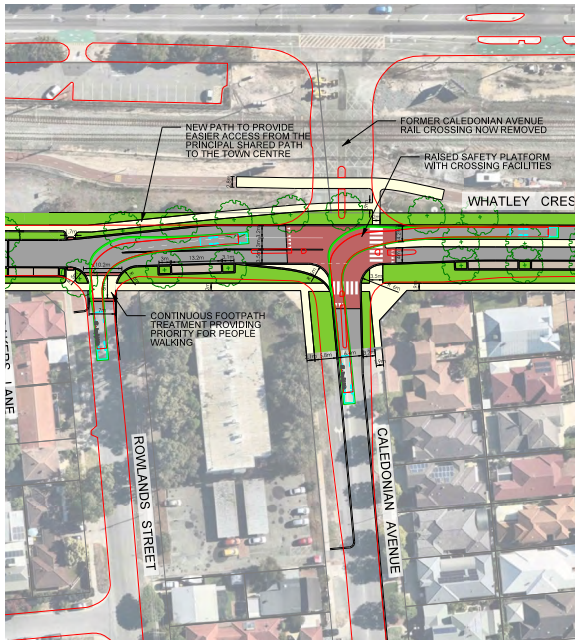


Right-in / left-in movements

Whatley Crescent and Rowlands Street + Caledonian Ave

12.5m Heavy Rigid Vehicle

6b



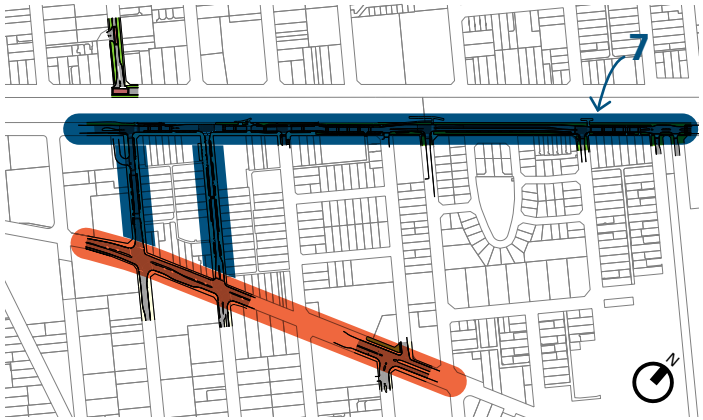
Right-out movements

Whatley Crescent and Rowlands Street + Caledonian Ave

12.5m Heavy Rigid Vehicle

0 20 40m

SWEPT PATHS
TESTING DESIGN VEHICLE



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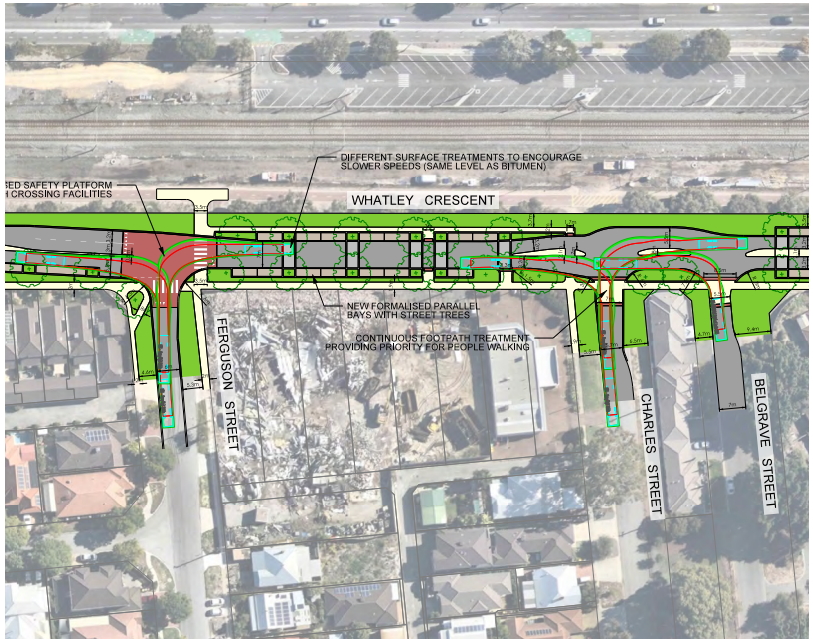
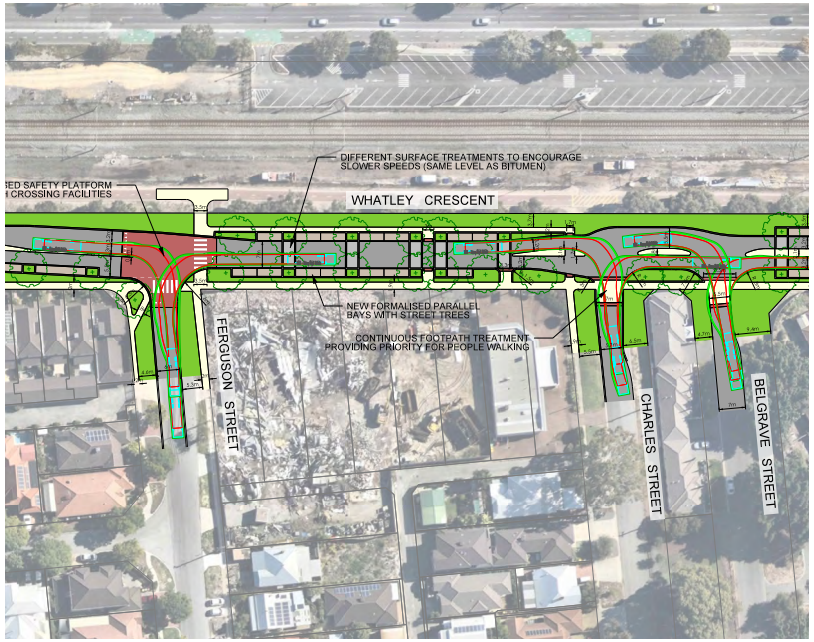


Right-out / left-out movements

Whatley Crescent and Ferguson St + Charles St + Belgrave St

12.5m Heavy Rigid Vehicle

7b



Right-in / Left-in movements

Whatley Crescent and Ferguson St + Charles St + Belgrave St

12.5m Heavy Rigid Vehicle

0 20 40m

SUN STUDY

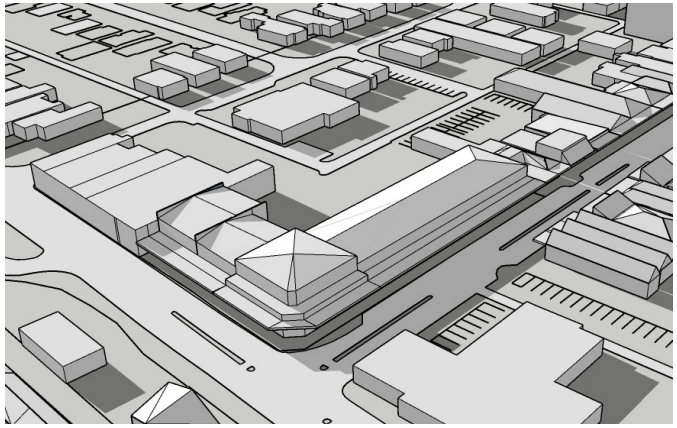
UNDERSTANDING SOLAR ACCESS

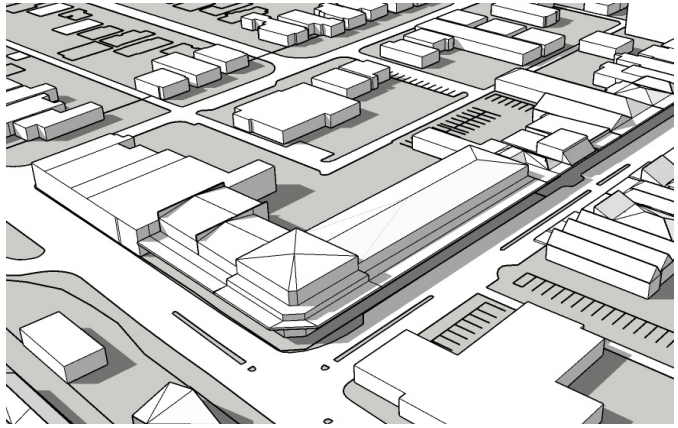
9am

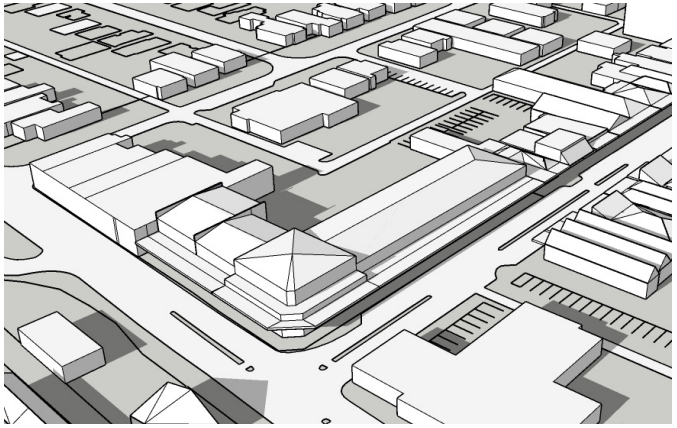
12noon

3pm

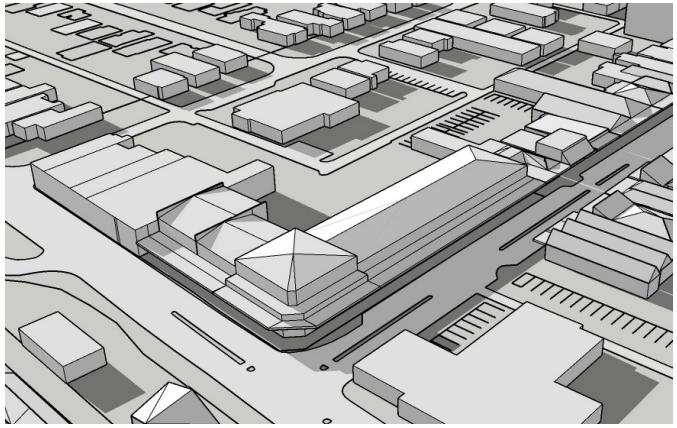
Winter - 21 June

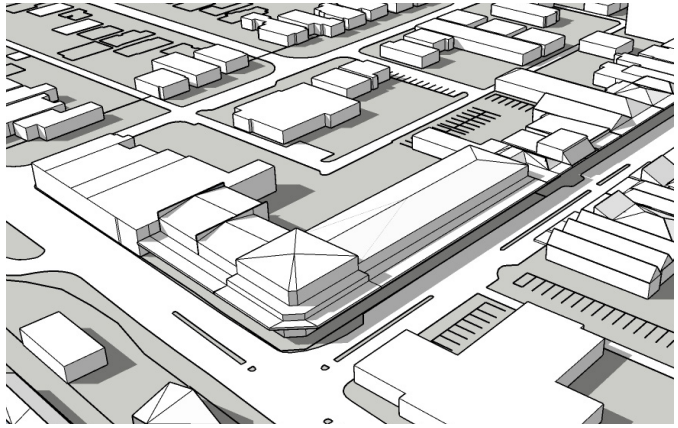


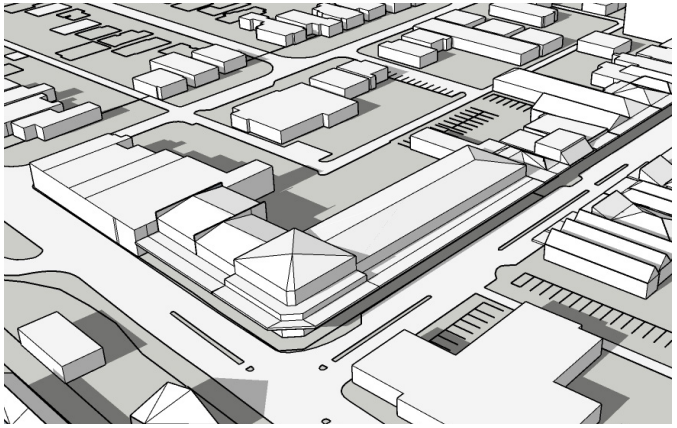




Summer - 22 December





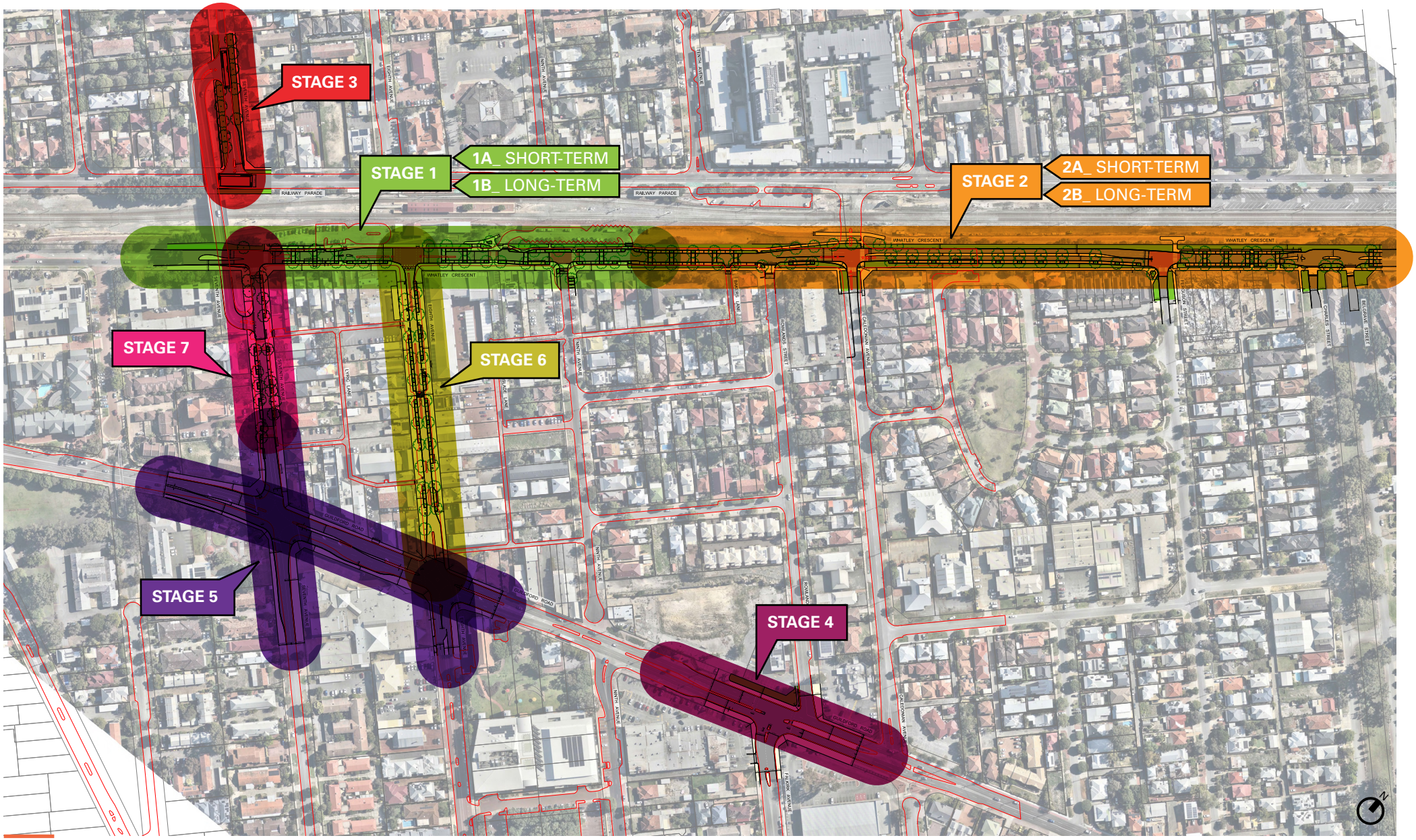


04 Implementation

Partnerships and Staging

STAGING

DELIVERING THE VISION



STAGE*	STREET SEGMENT	DESCRIPTION OF MAJOR WORKS	RESPONSIBILITY	EST. TIMING	FUNDING
1A	Whatley Crescent; between Seventh Ave and Ninth Ave	Low cost road safety interventions including wombat crossings, and potentially raised safety platforms and/or relocation of south eastern kerb lines where drainage is not substantially impacted	Main Roads WA, with City of Bayswater	mid-2024	Through Main Roads WA, funding secured as part of the closure of Caledonian crossing project
2A	Whatley Crescent; between Ninth Ave and Belgrave Street	As above	Main Roads WA, with City of Bayswater	mid-2024	As above
3	Seventh Avenue; between bridge entry and Railway Parade	Low cost raised safety platforms; turn pocket on approach to Railway Parade	City of Bayswater	mid-2024	Main Roads WA Low Cost Urban Road Safety Programme
4	Guildford Road; Falkirk Avenue intersection	New crossing facility for navigation from Rowlands Street	Main Roads WA	2025	State Road funding works for Guildford Road
5	Guildford Road; Seventh Avenue approaches either side + Eighth Avenue approaches either side	New signalised full-movement intersection to Seventh Avenue incl. turn pockets + improvements to geometry and crossing locations to Eighth Avenue intersection	Main Roads WA	2025	As above
6	Eighth Avenue; between Whatley Crescent and Guildford Road	Removal (or relocation) of existing trees, removal of median, modification to drainage, change to paving and street camber to accomodate flush kerbing and tree pits	City of Bayswater, with support from Main Roads WA	2026 or beyond	Investigate METRONET or other State Government funding
7	Seventh Avenue; between Whatley Crescent and Guildford Road	Removal of 90 degree parking (may occur in Stage 5), formalised parallel parking bays, tree pits and wider footpaths	City of Bayswater, with support from Main Roads WA	2026 or beyond	as above
1B	Whatley Crescent; between Seventh Ave and Ninth Ave	formalised parking bays, tree pits, new footpaths on north-western side, surface treatments to bitumen (explore trees on eastern side in stg 1A)	City of Bayswater, with support from Main Roads WA	2026 or beyond	as above
2B	Whatley Crescent; between Ninth Ave and Belgrave Street	As above (explore timing and feasibility for undergrounding power distribution lines)	City of Bayswater, with support from Main Roads WA	2026 or beyond	as above

*Sequencing to be confirmed in further collaboration with the City of Bayswater and key Stakeholders

Timing and works for stages beyond Stage 5 are unfunded and require further investigation to confirm project viability and funding sources and commitments

FUTURE STUDIES
ITEMS FOR FURTHER CONSIDERATION

	KEY ITEM	DESCRIPTION	PROJECT IMPLICATIONS	RESPONSIBILITY	PRIORITY
	Underground Power	Conduct feasibility study for undergrounding of distribution power lines along Whatley Crescent.	If sequencing of works is not aligned with project upgrades, eventual undergrounding works may leave a visual scar in pavement of footpath and road surface in the future.	Western Power	High
	Station Canopy	Extend shelter structure outward toward Whatley and Eighth intersection to provide better shade and shelter.	Within Rail Corridor and subject to PTA Approval.	Public Transport Authority	High
	Trees on Guildford Road	Confirm setback and sightline requirements once a final design speed is agreed for Guildford Road through the Town Centre.	Opportunities for tree planting in bulb out verges closer to Seventh and Eighth intersections, canopies can grow above sightline height measured at driver eye height (1.1m).	Main Roads WA	High
	Shared ride share / taxi zone	Investigate opportunities to formalise ride sharing and taxi parking along Guildford Road and elsewhere.	Servicing night-time uses along Guildford Road outside of busy traffic times occurs in an informal manner currently. Investigate safety implications.	Main Roads WA	High
	Speed Zoning	Confirm extent of speed zoning proposed, particuarly along Whatley Crescent.	The proposed target speed needs to be confirmed prior to detailed design, to ensure the design responds to the speed desired.	Main Roads WA	Medium
	Train Timetable Display	Visual Timetable to display train schedules for people outside of the Station.	Display board to be visual from a distance on Eighth Avenue, so people can make better decisions about spending time in the Town Centre.	Public Transport Authority	Medium
	Station Car Parking	The plan shows potential capacity for PTA to expand and formalise the existing car parking arrangement to the north-west and south-east of the Station.	Minor realignment of the Principal Shared Path required to accommodate an extension of parking to the south-east, if required. Parking may straddle Road Reserve boundary and Rail Reserve boundary in order not to impact rail and PSP.	Public Transport Authority	Medium
	Parcel Office (Station) and surrounds	Investigate options for public activation of the heritage building (eg. arts and culture, leasing opportunities for entertainment, food and beverage etc.) and use of surrounding land (eg. community gardens, parks).	Better integration of transport infrastructure and town centre. These uses are within the Rail Corridor and subject to PTA Approval.	City of Bayswater and Public Transport Authority	Medium

	Healthy Streets	Healthy Streets Assessments to ensure detailed design performs well for people walking and cycling	Recommended to be part of any detailed design brief	City of Bayswater / Main Roads WA	Medium
	Public Life Data Collection	Conduct surveys of people using the street and/or collect movement data to understand where people spend time	Critical for understanding the impact of any intervention and its success, particularly important when large public funds are expended.	City of Bayswater / Main Roads WA	Medium
	Bus Planning	PTA to conduct long-term bus planning for the broader catchment, which would confirm the timing for a potential Bus Interchange in proximity to Maylands Rail Station	All roads impacted by works (with the exception of Eighth Avenue) are designed using lane widths that can accmmodate buses.	Public Transport Authority	Low

APPENDIX A

Healthy Streets Design Checks

Healthy Streets Score

Name of street

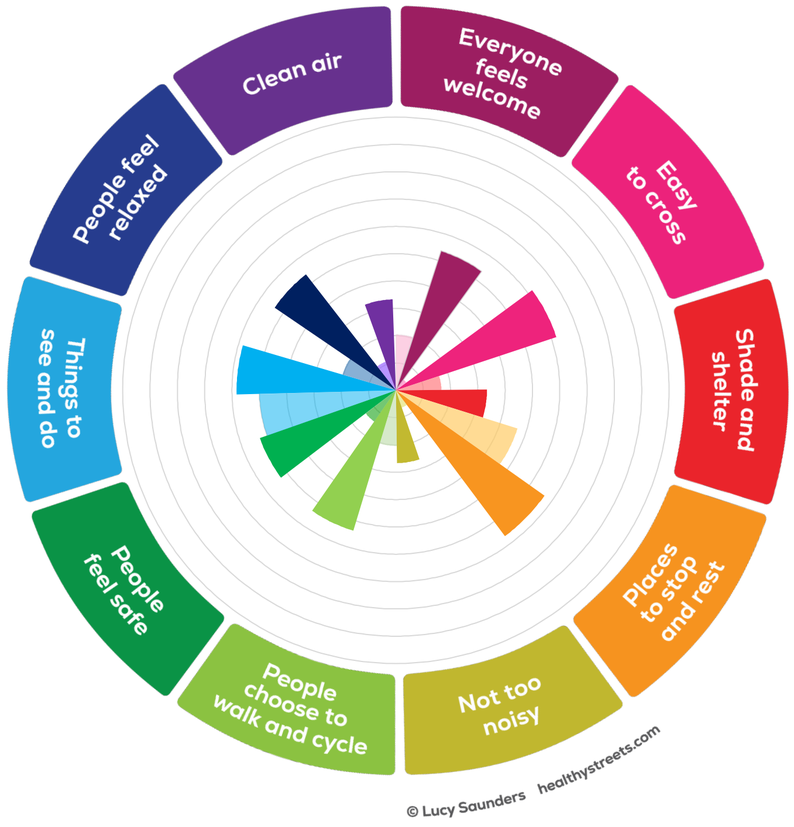
Whately Crescent

Name of street at start intersection

Seventh Avenue (not included)

Name of street at end intersection

approx 50m east of Ninth Avenue (Land use changes)



	Existing Layout Score	Proposed Layout Score
Healthy Streets Score	21	49
Everyone feels welcome	20	54
Easy to cross	5	62
Shade and shelter	17	33
Places to stop and rest	47	67
Not too noisy	7	27
People choose to walk and cycle	20	54
People feel safe	14	53
Things to see and do	50	58
People feel relaxed	20	54
Clean air	11	33

Scoring

	Metrics	Score				How do I measure this?	Existing layout	Notes on existing layout scores	Proposed layout	Notes on proposed layout scores
		3	2	1	0					
1	**Traffic speed**	For the hour when vehicle speeds are highest the 85th percentile is below 30kph	For the hour when vehicle speeds are highest the 85th percentile is 30-39 kph	For the hour when vehicle speeds are highest the 85th percentile is 40-49 kph	For the hour when vehicle speeds are highest the 85th percentile is 50kph or more	info	0	**posted speed limit is 60km/h**	**2**	**narrower traffic lanes, more activation on footpath and additional crossing points should reduce speeds through this area to below 40km/h. Sign posted speed to change to 30km/h. Raised intersections likely to help in maintaining speeds below 40, but below 30 cannot be achieved given straight geometry**
2	**Volume of motorised traffic**	For the hour when traffic volume is at its peak there are 199 or fewer vehicles (both directions)	For the hour when traffic volume is at its peak there are 200-499 vehicles (both directions)	For the hour when traffic volume is at its peak there are 500-999 vehicles (both directions)	For the hour when traffic volume is at its peak there are 1000 or more vehicles (both directions)	info	0	**PM peak traffic volumes just over 1000vph (MRWA 2021 data)**	**0**	**no change in volumes expected.**
3	**Mix of vehicles**	The only large vehicles using the street are public service vehicles, public transport and vehicles servicing properties on the street	The proportion of large vehicles (excluding public transport) is less than 1% in the peak hour	The proportion of large vehicles (excluding public transport) is 1-3% of motorised traffic in the peak hour	The proportion of large vehicles (excluding public transport) is greater than 3% of motorised traffic in the peak hour	info	1	**proportion of heavy vehicles 3% north of Eighth and 2% to south (MRWA 2021 data)**	**1**	**no change in vehicle mix. Maybe an increase in buses, but they are excluded from this metric**
4	**Conflict between cycles and turning vehicles**	At the weakest intersection: Measures are in place to reduce the number and speed of turning movements by motor vehicles at intersections and driveway cross-overs AND At signal controlled intersections all conflicting movements between cycles and turning motor vehicles have separated phases during the traffic signal cycle	At the weakest intersection: Measures are in place to reduce the number or speed of turning movements by motor vehicles at intersections and driveway cross-overs AND At signal controlled intersections cycle movements do not have separate phases during the traffic signal cycle but mitigation measures are in place	At the weakest intersection: There are no restrictions on speed or number of turning movements by motor vehicles at intersections and other uncontrolled accesses but there is a space allocated to cycles	At the weakest intersection does not meet criteria in 1-3 i.e. At signal controlled intersections cycle movements do not have separate phases during the traffic signal cycle and there are no mitigation measures in place At uncontrolled intersections there are no restrictions on speed or number if turning movements by motor vehicles and there is no space allocated to cycles	info	0	**no restrictions on turning speed or number of movements and no space allocated to cycles**	**0**	**Continuous footpaths and dedicated crossing created for all side streets. No dedicated cycling facilities at signalised crossing at Eighth Ave or waiting areas.**
5	**Turning speeds at side-street intersections**	The weakest side-street intersection has a narrow, tight geometry such that a turning motorised vehicle must slow down to less than 5 km/hr and the carriageway is raised to the level of the footpath e.g. footway continuation or raised pedestrian crossing e.g. wombat crossing	The weakest side-street intersection has a narrow, tight geometry such that a turning motorised vehicle must slow down to less than 5 km/hr and instead of a raised carriageway at the intersection there are pram ramps on the desire line	The weakest side-street intersection has only pram ramps at the intersection and these are on the desire line	The weakest side-street intersection does not meet criteria in 1-3 i.e. has no pram ramps or pram ramps are not on the desire line	info	0	**weakest intersection is Ninth Ave, no narrowing, pram ramps poorly aligned taking person off desire line. On the north side of the street, the dual use path is setback far enough to not be impacted by car park entries**	**3**	**All side streets addressed with continious footpaths and a dedicated crossing to Seventh Avenue**
6	**Ease of crossing mid block**	See table	See table	See table	See table	info	0	**This would score a 3 by default if Ninth and Seventh Ave provided crossings, but they do not**	**3**	**additional crossings across Whately between ninth and Eighth scores well. Distance between Eighth signals and new crossing at Seventh is 95m, which does not require an additional mid-block crossing (although an informal one with pram ramps is provided primarily for people who park on the western side)**
7	**Priority of crossing at intersections**	Score using tables for intersections crossing side streets and main roads and use the lower of the 2 scores if they differ	Score using tables for intersections crossing side streets and main roads and use the lower of the 2 scores if they differ	Score using tables for intersections crossing side streets and main roads and use the lower of the 2 scores if they differ	Score using tables for intersections crossing side streets and main roads and use the lower of the 2 scores if they differ	info	0	**Weakest intersection provided with a crossing is ninth no crossing priority and poor pram ramp. However, Seventh and Ninths are missing crossings over Whatley altogether**	**3**	**dedicated crossings provided at all intersections. Ninth and Seventh do not have a crossing on one side, but there is no land use on the other side that would warrant this.**
8	**Quality of the footpath**	At the weakest point there is an even, level, non-slip surface	At the weakest point there is a non-slip surface without defects but it is not level	At the weakest point there are minor defects but none more than 14mm level difference	At the weakest point there is at least one major defect (a level difference of 15mm or more)	info	1	**slight defects in surface between Eighth and Seventh but not greater than 14mm**	**3**	**footpath to be upgraded as part of project to extend footpath and narrow traffic lanes**
9	**Space for walking**	At the weakest point the minimum clear walking space achieves A	At the weakest point the minimum clear walking space achieves B	At the weakest point the minimum clear walking space achieves C	At the weakest point the minimum clear walking space achieves D	info	0	**less than 1.5m between alfresco dining, power pole and bike parking outside of no. 204. (MRWA 2021 data notes 213 people walking for peak hour 8am-9am)**	**2**	**5.1m total verge space created, leaving 3.4m for dedicated walking space (It is expected that 400+ people in the peak needs to be planned for)**

10	**Appropriate separation of people walking from traffic**	At the weakest point the buffer achieves A	At the weakest point the buffer achieves B	At the weakest point the buffer achieves C	At the weakest point the buffer achieves D	info	0	**over 50km/h with no buffer**	0	**Parking creates a buffer and trees guarentee this buffer when no cars are parked. Buffer is greater than 2.1m. Dedicated turn lanes removed from signalised intersection, maintaining seperation for people walking. However, there is a new footpath on the west side south of Eighth which has no buffer. This could be improved by removing the right-turn lane from Whatley into Eighth**
11	**Space for cycling**	At the weakest point: If the speed limit is greater than 30kph, cycles are physically separated from other traffic and the effective width of the track is more than 2.5m (1-way) at the narrowest point If the speed limit is 30kph or lower, cycles mix with general traffic if peak hour flow is 200 vehicles or fewer	At the weakest point: If the speed limit is greater than 30 kph, cycles are physically separated from other traffic and the effective width of the track is 2m - 2.5m (1-way) or 3.5m+ (2-way) at the narrowest point If the speed limit is 30kph or lower, cycles mix with general traffic if peak hour flow is 200-500 vehicles	At the weakest point: Cycles are separated from other traffic and the effective width of the lane/track is 1.8-2m (1-way) or 2.5 - 3.4m (2-way) effective width at its narrowest point. If the speed limit is 30kph cycles mix with general traffic if peak hour flow is more than 500 vehicles	At the weakest point does not meet criteria in 1-3 i.e. If cycles are separated from other traffic the track is less than 1.8m effective width at its narrowest point If the speed limit is above 30kph and cycles are mixing with general traffic or in an unseparated cycle lane on the carriageway	info	0	**no cycle infrastructure in this street**	1	**no cycle infrastructre to be provided on street but speed limit is 30km/h**
12	**Lighting**	At the weakest point lighting has been specifically designed to prioritise comfort and safety of people walking and cycling, the light quality has been specifically selected for colour and glare	At the weakest point there is purpose designed lighting provided to ensure safety of people walking and cycling	At the weakest point lighting has been designed for motor vehicle safety. Walking areas meet Australian Standards as a consequence of the carriageway being illuminated	At the weakest point does not meet criteria in 1-3 i.e. lighting of walking and/or cycling areas is absent or inconsistent (e.g. light is obstructed by planting) and does not meet Australian Standards	info	1	**lighting has been designed for motor vehicle with walking areas meeting AS as a consequence. Some lights coming from shops at night, but it is not consistent across all sides so cannot be counted**	1	**Opportunity to provide best practice lighting as part of broader expense of undergrounding power; however no commitments to underground work at this stage**
13	**Availability of drinking water**	There is less than 400m to the nearest bubbler in every direction along the street from the centre point of this street	There is 400m to 799m to the nearest bubbler in every direction along the street from the centre point of this street	There is more than 800m but less than 1.2 km to the nearest bubbler in every direction along the street from the centre point of this street	There is more than 1.2 km to the nearest bubbler in every direction along the street from the centre point of this street	info	3	**Water fountain located in the middle no more than 120m from either end, corner of Whatley and Eighth**	3	**no change**
14	**Public seating**	Assessing the full length of the street the longest distance between public seats on this street is less than 50m	Assessing the full length of the street the longest distance between public seats on this street is between 50m and 199m	Assessing the full length of the street the longest distance between public seats on this street is between 200m and 399m	Assessing the full length of the street the longest distance between public seats on this street is 400m or more	info	2	**seating availbale on corner of Eighth and Whatley no more than 120m either side**	2	**Seating will be added at 50m spacing, but cannot assume highest score without details**
15	**Cycle parking**	Assessing the full length of the street the longest distance between available public cycle parking on this street is less than 50m and there is step free access	Assessing the full length of the street the longest distance between available public cycle parking on this street is between 50m and 199m and there is step free access	Assessing the full length of the street the longest distance between available public cycle parking on this street is between 200m and 399m and/or there is not step free access	Assessing the full length of the street the longest distance between available public cycle parking on this street is 400m or more	info	2	**cycle parking generally every 50m, except from Seventh to neatest bike parking toward Eighth (about 80m). with pram ramps at intersection with Eighth and ninth avenue (within 15m approx) providing step free access for 3 bike racks. Bike parking in between Eighth and Ninth cannot be counted as no step free access**	2	**cycle parking at 50m spacing will be provided (not yet shown on the plan, so cannot assume highest score). Consider further at detailed design**
16	**Shade for walking**	Assessing the full length of the street there is 90% or more linear coverage of walking space	Assessing the full length of the street there is 75-89% linear coverage of walking space	Assessing the full length of the street there is 50-74% linear coverage of walking space	Assessing the full length of the street there is less than 50% linear coverage of walking space	info	1	**between 50% and 74% shaded by shop awnings (170 / 285m = 60%)**	1	**new trees provided but their canopy coverage is dependant on factors such as the City's requirements, ability to thrive / soil conditions / root zones etc. to be confirmed at detailed design**
17	**Shade for cycling**	Assessing the full length of the street there is 75% or more linear coverage of cycling space	Assessing the full length of the street there is 50-74% linear coverage of cycling space	Assessing the full length of the street there is 25-49% linear coverage of cycling space	Assessing the full length of the street there is less than 25% linear coverage of cycling space	info	0	**no coverage of traffic lane for cycling**	1	**new trees provided, need to confirm species to measure properly, but expected to achieve just over 25%**
18	**Reducing through traffic**	Assessing the whole street there is no through-movement for private motorised traffic	Assessing the whole street through movement for private motorised vehicles is permitted but use of the side streets is indirect (i.e one way or requires at least 2 turns) AND speed limit is 30km/hr or below	Assessing the whole street through movement for private motorised vehicles is permitted but speed limit is 30km/hr or below	Street does not meet criteria in 1-3 i.e. through movement for private motorised vehicles is permitted and speed limit is 40km/hr or above	info	0	**no restrictions for through movements and speeds above 40km/h**	1	**no restrictions for through movements but speed limits are below 30km/h**
					Are there any bus services running on this street? Yes/No		**No**		**No**	

19	**Bus stops**	At the weakest performing bus stop: There is sufficient waiting space based on peak patronage that is clear of the walking space; the bus stop has seating; rain and sun protection for 25% of peak customers (or at least 4 people); step free access and safe crossing of any cycleways to access the stop	At the weakest performing bus stop: There is sufficient waiting space based on average patronage that is clear of the walking space; the bus stop has seating; rain and sun protection for at least 4 people; step free access and safe crossing of any cycleways to access the stop	At the weakest performing bus stop: The bus stop has seating and rain and sun protection for at least 4 people	The weakest performing bus stop does not achieve criteria to score 1-3	info				

Healthy Streets Score

Name of street

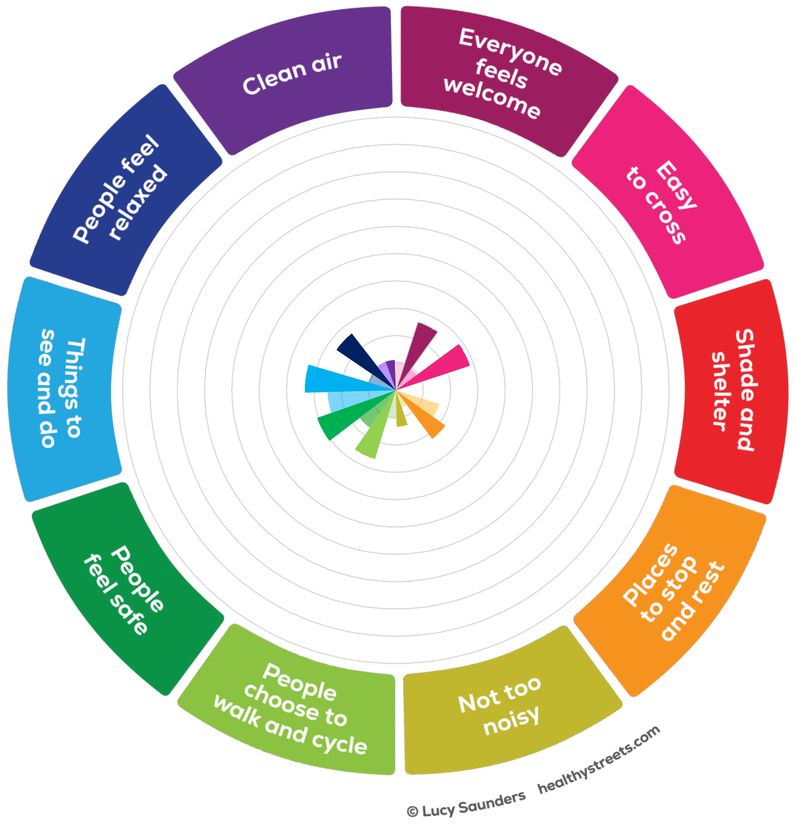
Guildford Road

Name of street at start intersection

Eighth Avenue (south west of and not including intersection)

Name of street at end intersection

Seventh Avenue (includes intersection)



	Existing Layout Score	Proposed Layout Score
Healthy Streets Score	12	22
Everyone feels welcome	11	26
Easy to cross	10	29
Shade and shelter	0	0
Places to stop and rest	17	22
Not too noisy	7	13
People choose to walk and cycle	11	26
People feel safe	17	31
Things to see and do	25	33
People feel relaxed	11	26
Clean air	11	11

Scoring

	Metrics	Score				How do I measure this?	Existing layout	Notes on existing layout scores	Proposed layout	Notes on proposed layout scores
		3	2	1	0					
1	**Traffic speed**	For the hour when vehicle speeds are highest the 85th percentile is below 30kph	For the hour when vehicle speeds are highest the 85th percentile is 30-39 kph	For the hour when vehicle speeds are highest the 85th percentile is 40-49 kph	For the hour when vehicle speeds are highest the 85th percentile is 50kph or more	info	0	**speed limit is 60km/h**	0	**no raised table or other intervention to physically slow vehicles. Speed limit to change from 60 to 50km/h**
2	**Volume of motorised traffic**	For the hour when traffic volume is at its peak there are 199 or fewer vehicles (both directions)	For the hour when traffic volume is at its peak there are 200-499 vehicles (both directions)	For the hour when traffic volume is at its peak there are 500-999 vehicles (both directions)	For the hour when traffic volume is at its peak there are 1000 or more vehicles (both directions)	info	0	**peak hour traffic volume 1009 (MRWA 2021 data)**	0	**No change**
3	**Mix of vehicles**	The only large vehicles using the street are public service vehicles, public transport and vehicles servicing properties on the street	The proportion of large vehicles (excluding public transport) is less than 1% in the peak hour	The proportion of large vehicles (excluding public transport) is 1-3% of motorised traffic in the peak hour	The proportion of large vehicles (excluding public transport) is greater than 3% of motorised traffic in the peak hour	info	1	**3% HV (MRWA 2021 data)**	1	**No change**
4	**Conflict between cycles and turning vehicles**	At the weakest intersection: Measures are in place to reduce the number and speed of turning movements by motor vehicles at intersections and driveway cross-overs AND At signal controlled intersections all conflicting movements between cycles and turning motor vehicles have separated phases during the traffic signal cycle	At the weakest intersection: Measures are in place to reduce the number or speed of turning movements by motor vehicles at intersections and driveway cross-overs AND At signal controlled intersections cycle movements do not have separate phases during the traffic signal cycle but mitigation measures are in place	At the weakest intersection: There are no restrictions on speed or number of turning movements by motor vehicles at intersections and other uncontrolled accesses but there is a space allocated to cycles	At the weakest intersection does not meet criteria in 1-3 i.e. At signal controlled intersections cycle movements do not have separate phases during the traffic signal cycle and there are no mitigation measures in place At uncontrolled intersections there are no restrictions on speed or number if turning movements by motor vehicles and there is no space allocated to cycles	info	0	**no restrictions on speed or volume and no space allocated for cycles; does not meet criteria for 1**	0	**Signals at Seventh Ave provide opportunity for people cycling to cross at walking facility, but no dedicated cycling lanes provided and no measures to phyiscally slow turning vehicles**
5	**Turning speeds at side-street intersections**	The weakest side-street intersection has a narrow, tight geometry such that a turning motorised vehicle must slow down to less than 5 km/hr and the carriageway is raised to the level of the footpath e.g. footway continuation or raised pedestrian crossing e.g. wombat crossing	The weakest side-street intersection has a narrow, tight geometry such that a turning motorised vehicle must slow down to less than 5 km/hr and instead of a raised carriageway at the intersection there are pram ramps on the desire line	The weakest side-street intersection has only pram ramps at the intersection and these are on the desire line	The weakest side-street intersection does not meet criteria in 1-3 i.e. has no pram ramps or pram ramps are not on the desire line	info	1	**small car park entry at no. 183 Guildford. Vehicles can only turn in and not out. Footpath goes straight across for priority of people walking. Geometry is tight, but entry is wide enough to turn at speed (7.5m)**	1	**footpath goes straight across with 7m wide ramp. Vehicles likely to navigate at more than 5km/h to avoid a rear end collision coming off Guildford Road; but this still represents an improvement on the current speeds vehicles enter the crossover**
6	**Ease of crossing mid block**	See table	See table	See table	See table	info	0	**Distance between intersections is 100m and would score a 3 by default if a priority crossing was provided on north side of Seventh Ave. As one does not exist, it must be measured as 0. Vehicle speeds and volumes too dangerous to navigate**	3	**Now that signals are provided at Seventh Ave, the distance between the new crossing and Eighth is exactly 100m, meaning the need for mid-block crossing falls away.**
7	**Priority of crossing at intersections**	Score using tables for intersections crossing side streets and main roads and use the lower of the 2 scores if they differ	Score using tables for intersections crossing side streets and main roads and use the lower of the 2 scores if they differ	Score using tables for intersections crossing side streets and main roads and use the lower of the 2 scores if they differ	Score using tables for intersections crossing side streets and main roads and use the lower of the 2 scores if they differ	info	0	**intersection of Seventh Ave has no priority or refuge and fast turning speeds**	1	**the proposed change to signals at Seventh Ave should improve overall wait time and create safer priorty crossing, but cannot be certain at this stage that a maximum of 45 second wait time to cross will be achieved across Guildford (signal phasing to be confirmed at detailed design). Concept design places crossings on walking desire lines**
8	**Quality of the footpath**	At the weakest point there is an even, level, non-slip surface	At the weakest point there is a non-slip surface without defects but it is not level	At the weakest point there are minor defects but none more than 14mm level difference	At the weakest point there is at least one major defect (a level difference of 15mm or more)	info	0	**damaged footpath near to car park entrance greater than 15mm, particularly around services**	3	**It is recommended that the project budget incudes necessary upgrades to damaged footpaths or brand new material to tie into Eighth design**

9	**Space for walking**	At the weakest point the minimum clear walking space achieves A	At the weakest point the minimum clear walking space achieves B	At the weakest point the minimum clear walking space achieves C	At the weakest point the minimum clear walking space achieves D	info	**0**	**a power pole reduces footpath width to 1.2m, where slip lane squeezes path width approaching Eighth on northern side. MRWA 2021 data notes 103 people in busiest hour from 230pm to 330pm (school activity?)**	**0**	**Some Improvement to footpath widths, but still a 2.4m footpath at smallest point. Assume Power poles to remain so effective width at pinch points remains an issue (TBC at detailed design). Road Reserve is very tight and does not leave any room for wider footpaths unless level of service for vehicles decreases (ie traffic lanes removed).**

10	**Appropriate separation of people walking from traffic**	At the weakest point the buffer achieves A	At the weakest point the buffer achieves B	At the weakest point the buffer achieves C	At the weakest point the buffer achieves D	info	0	**no buffer or seperation between people walking and traffic lane on the north side**	1	**Assume the 3.2m verge is a 2.3m clear walking space and a 0.9m buffer**
11	**Space for cycling**	At the weakest point: If the speed limit is greater than 30kph, cycles are physically separated from other traffic and the effective width of the track is more than 2.5m (1-way) at the narrowest point If the speed limit is 30kph or lower, cycles mix with general traffic if peak hour flow is 200 vehicles or fewer	At the weakest point: If the speed limit is greater than 30 kph, cycles are physically separated from other traffic and the effective width of the track is 2m - 2.5m (1-way) or 3.5m+ (2-way) at the narrowest point If the speed limit is 30kph or lower, cycles mix with general traffic if peak hour flow is 200-500 vehicles	At the weakest point: Cycles are separated from other traffic and the effective width of the lane/track is 1.8-2m (1-way) or 2.5 - 3.4m (2-way) effective width at its narrowest point. If the speed limit is 30kph cycles mix with general traffic if peak hour flow is more than 500 vehicles	At the weakest point does not meet criteria in 1-3 i.e. If cycles are separated from other traffic the track is less than 1.8m effective width at its narrowest point If the speed limit is above 30kph and cycles are mixing with general traffic or in an unseparated cycle lane on the carriageway	info	0	**no cycle space provided, as such, cyclists would have to mix with traffic or pedestrians**	0	**No change.**
12	**Lighting**	At the weakest point lighting has been specifically designed to prioritise comfort and safety of people walking and cycling, the light quality has been specifically selected for colour and glare	At the weakest point there is purpose designed lighting provided to ensure safety of people walking and cycling	At the weakest point lighting has been designed for motor vehicle safety. Walking areas meet Australian Standards as a consequence of the carriageway being illuminated	At the weakest point does not meet criteria in 1-3 i.e. lighting of walking and/or cycling areas is absent or inconsistent (e.g. light is obstructed by planting) and does not meet Australian Standards	info	1	**lighting has been designed for traffic on the road and the walking areas meet AS as a consequence**	1	**Out of necessity, the Seventh signal improvements is likely to force undergrounding of power, which comes with opportunity to improve lighting. Our concept will recommend lighting purpose built for people walking and cycling, but State Road not as likely to assume special purpose lighting for people**
13	**Availability of drinking water**	There is less than 400m to the nearest bubbler in every direction along the street from the centre point of this street	There is 400m to 799m to the nearest bubbler in every direction along the street from the centre point of this street	There is more than 800m but less than 1.2 km to the nearest bubbler in every direction along the street from the centre point of this street	There is more than 1.2 km to the nearest bubbler in every direction along the street from the centre point of this street	info	3	**Two Water bubblers available in War Memorial Gardens outside RISE Building, one with a dog bowl (entire street segment less than 250m)**	3	**No change**
14	**Public seating**	Assessing the full length of the street the longest distance between public seats on this street is less than 50m	Assessing the full length of the street the longest distance between public seats on this street is between 50m and 199m	Assessing the full length of the street the longest distance between public seats on this street is between 200m and 399m	Assessing the full length of the street the longest distance between public seats on this street is 400m or more	info	0	**seat at the bus stop on the south side and next availbale seat in on Eighth Ave approx 160m away. No seating on northern side**	1	**While improved seating will be provided, it is not yet shown on the plan. Landscaping details required to achieve higher score**
15	**Cycle parking**	Assessing the full length of the street the longest distance between available public cycle parking on this street is less than 50m and there is step free access	Assessing the full length of the street the longest distance between available public cycle parking on this street is between 50m and 199m and there is step free access	Assessing the full length of the street the longest distance between available public cycle parking on this street is between 200m and 399m and/or there is not step free access	Assessing the full length of the street the longest distance between available public cycle parking on this street is 400m or more	info	0	**no cycle parking on this street**	0	**bike racks are being added near bus stop as part of the Woolworths development. Need detail on plans to show improvement for western side, but given small verge between Seventh and Eighth, bike racks are unlikely to be provided without impacting walking space (consider further at detailed design)**
16	**Shade for walking**	Assessing the full length of the street there is 90% or more linear coverage of walking space	Assessing the full length of the street there is 75-89% linear coverage of walking space	Assessing the full length of the street there is 50-74% linear coverage of walking space	Assessing the full length of the street there is less than 50% linear coverage of walking space	info	0	**less than 10% shade**	0	**MRWA has setback requirements for trees for this speed of road which make it difficult to put new ones in skinny corridor. To be investigated further**
17	**Shade for cycling**	Assessing the full length of the street there is 75% or more linear coverage of cycling space	Assessing the full length of the street there is 50-74% linear coverage of cycling space	Assessing the full length of the street there is 25-49% linear coverage of cycling space	Assessing the full length of the street there is less than 25% linear coverage of cycling space	info	0	**less than 10% shade**	0	**As above**
18	**Reducing through traffic**	Assessing the whole street there is no through-movement for private motorised traffic	Assessing the whole street through movement for private motorised vehicles is permitted but use of the side streets is indirect (i.e one way or requires at least 2 turns) AND speed limit is 30km/hr or below	Assessing the whole street through movement for private motorised vehicles is permitted but speed limit is 30km/hr or below	Street does not meet criteria in 1-3 i.e. through movement for private motorised vehicles is permitted and speed limit is 40km/hr or above	info	0	**through movement for private vehicles is permitted at 60km/h**	0	**No change**
					Are there any bus services running on this street? Yes/No		**Yes**		**Yes**	

19	**Bus stops**	At the weakest performing bus stop: There is sufficient waiting space based on peak patronage that is clear of the walking space; the bus stop has seating; rain and sun protection for 25% of peak customers (or at least 4 people); step free access and safe crossing of any cycleways to access the stop	At the weakest performing bus stop: There is sufficient waiting space based on average patronage that is clear of the walking space; the bus stop has seating; rain and sun protection for at least 4 people; step free access and safe crossing of any cycleways to access the stop	At the weakest performing bus stop: The bus stop has seating and rain and sun protection for at least 4 people	The weakest performing bus stop does not achieve criteria to score 1-3	info	**0**	**weakest bus stop in on north side with no seating or shelter**	**0**	**Not much space to improve bus stop, but changes to kerb lines could create opportunity for improved bus stop and shelter, to be investigated**

Healthy Streets Score

Name of street

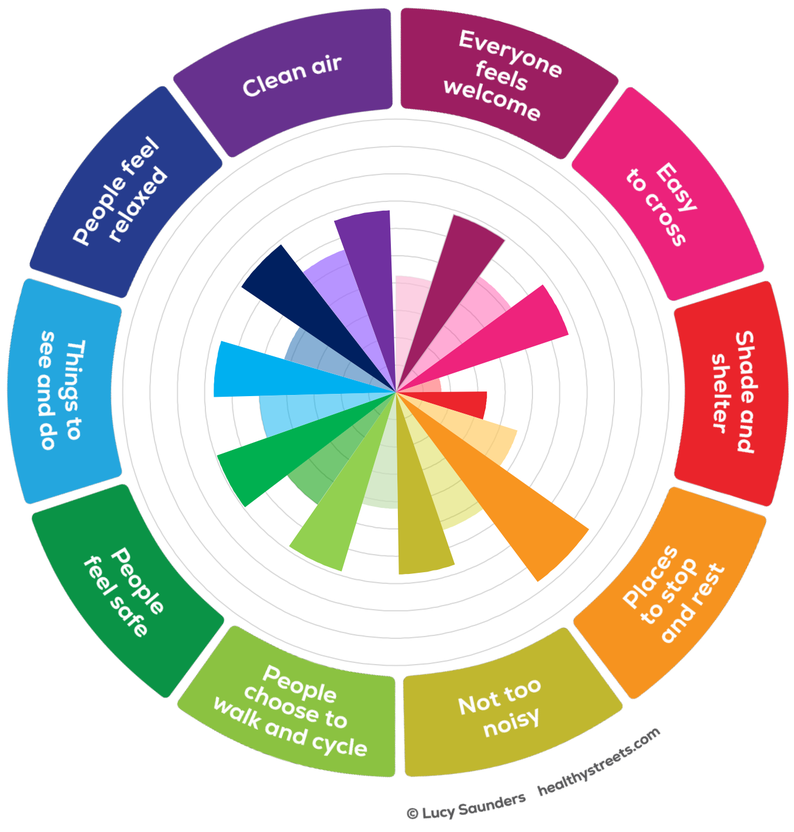
Eighth Ave

Name of street at start intersection

East of Guildford Road

Name of street at end intersection

Whatley Cres (but does not include intersection)



	Existing Layout Score	Proposed Layout Score
Healthy Streets Score	45	66
Everyone feels welcome	43	69
Easy to cross	52	67
Shade and shelter	17	33
Places to stop and rest	47	87
Not too noisy	53	67
People choose to walk and cycle	43	69
People feel safe	50	69
Things to see and do	50	67
People feel relaxed	43	69
Clean air	56	67

Scoring

	Metrics	Score				How do I measure this?	Existing layout	Notes on existing layout scores	Proposed layout	Notes on proposed layout scores
		3	2	1	0					
1	**Traffic speed**	For the hour when vehicle speeds are highest the 85th percentile is below 30kph	For the hour when vehicle speeds are highest the 85th percentile is 30-39 kph	For the hour when vehicle speeds are highest the 85th percentile is 40-49 kph	For the hour when vehicle speeds are highest the 85th percentile is 50kph or more	info	**1**	**No speed data available for Eighth. Posted speed limit is 40km/h and it is likely that speeds are higher than that outside of busy hours, but 85th percentile unlikely to be higher than 50km/h as there is still tight lanes and fixed obstacles within median and pavement at all hours**	**2**	**Will be sign posted 30km/h and designed with a shared space, with more trees, bike racks, seating and other street furniture that should restrict vehicle speeds at all hours. However, given the straight geometry it is possible that people driving could travel faster than 30km/h when activity is low.**
2	**Volume of motorised traffic**	For the hour when traffic volume is at its peak there are 199 or fewer vehicles (both directions)	For the hour when traffic volume is at its peak there are 200-499 vehicles (both directions)	For the hour when traffic volume is at its peak there are 500-999 vehicles (both directions)	For the hour when traffic volume is at its peak there are 1000 or more vehicles (both directions)	info	**2**	**Counted 95 vehicles in 15 mins from 1645 to 1700 at ///dome.park.lock. Peak hour traffic volume therefore 380. MRWA 2021 data counts 424 toward Whatley for same hour**	**2**	**kept the same, as the design may reduce some traffic that avoids the area due to slower speed, but may attract other traffic from people wishing to come to the area, plus future development in the area may also add traffic to the street slightly**
3	**Mix of vehicles**	The only large vehicles using the street are public service vehicles, public transport and vehicles servicing properties on the street	The proportion of large vehicles (excluding public transport) is less than 1% in the peak hour	The proportion of large vehicles (excluding public transport) is 1-3% of motorised traffic in the peak hour	The proportion of large vehicles (excluding public transport) is greater than 3% of motorised traffic in the peak hour	info	**2**	**MRWA 2021 data states 1% at Whatley intersection and 0% at Guildford Rd**	**2**	**Although its possible there will be a slight reduction with correct management of loading directed to laneways, cannot assume a change**
4	**Conflict between cycles and turning vehicles**	At the weakest intersection: Measures are in place to reduce the number and speed of turning movements by motor vehicles at intersections and driveway cross-overs AND At signal controlled intersections all conflicting movements between cycles and turning motor vehicles have separated phases during the traffic signal cycle	At the weakest intersection: Measures are in place to reduce the number or speed of turning movements by motor vehicles at intersections and driveway cross-overs AND At signal controlled intersections cycle movements do not have separate phases during the traffic signal cycle but mitigation measures are in place	At the weakest intersection: There are no restrictions on speed or number of turning movements by motor vehicles at intersections and other uncontrolled accesses but there is a space allocated to cycles	At the weakest intersection does not meet criteria in 1-3 i.e. At signal controlled intersections cycle movements do not have separate phases during the traffic signal cycle and there are no mitigation measures in place At uncontrolled intersections there are no restrictions on speed or number if turning movements by motor vehicles and there is no space allocated to cycles	info	**0**	**No protection in place at Eighth Ave and Guildford intersection nor dedicated space for cyclists in the street**	**0**	**Shared space adequate for safe cycling with sign posted speed limit at 30km/h. Continious footpath treatments introdcued for all side streets to reduce conflicts from turning vehicles. No dedicated cycling waiting areas or lanes or traffic signal phasing introduced for cycling at Eighth and Guildford, meaning risk remains**
5	**Turning speeds at side-street intersections**	The weakest side-street intersection has a narrow, tight geometry such that a turning motorised vehicle must slow down to less than 5 km/hr and the carriageway is raised to the level of the footpath e.g. footway continuation or raised pedestrian crossing e.g. wombat crossing	The weakest side-street intersection has a narrow, tight geometry such that a turning motorised vehicle must slow down to less than 5 km/hr and instead of a raised carriageway at the intersection there are pram ramps on the desire line	The weakest side-street intersection has only pram ramps at the intersection and these are on the desire line	The weakest side-street intersection does not meet criteria in 1-3 i.e. has no pram ramps or pram ramps are not on the desire line	info	**2**	**Footpath runs straight across side street entries with step free access and adequately provides priority for people walking. Side street entry near IGA over 9m wide, which is larger than the 7m limit to be classed as 'narrow'**	**3**	**pedestrian priority at side streets will improve, with footpath to be flush and entrances tightened to no larger than 7m. Bike racks used to define entrances to lanes and ensure vehicles do not make unnecessarily large sweeps**
6	**Ease of crossing mid block**	See table	See table	See table	See table	info	**3**	**step free access wombat crossing. 100m to Whatley Cres. 127m to Guildford.**	**3**	**step free access will remain, wombat crossing will remain**
7	**Priority of crossing at intersections**	Score using tables for intersections crossing side streets and main roads and use the lower of the 2 scores if they differ	Score using tables for intersections crossing side streets and main roads and use the lower of the 2 scores if they differ	Score using tables for intersections crossing side streets and main roads and use the lower of the 2 scores if they differ	Score using tables for intersections crossing side streets and main roads and use the lower of the 2 scores if they differ	info	**1**	**60 second wait time to cross Guildford Road signalised intersection**	**1**	**the proposed signal changes to parrallel walks should improve wait time, but cannot be certain at this stage that a maximum of 45 second wait time to cross will be achieved across Guildford (signal phasing to be confirmed at detailed design). Design is looking to improve Guildford Rd intersection geometry**
8	**Quality of the footpath**	At the weakest point there is an even, level, non-slip surface	At the weakest point there is a non-slip surface without defects but it is not level	At the weakest point there are minor defects but none more than 14mm level difference	At the weakest point there is at least one major defect (a level difference of 15mm or more)	info	**0**	**mostly good, safe and quality footpath. But some service trenches not maintained and have made trip hazards, outside no. 69 and no. 38**	**3**	**new footpaths and flush kerbing**

9	**Space for walking**	At the weakest point the minimum clear walking space achieves A	At the weakest point the minimum clear walking space achieves B	At the weakest point the minimum clear walking space achieves C	At the weakest point the minimum clear walking space achieves D	info	**0**	**Counted 256 people in 15 mins from 1645 to 1700 at ///dome.park.lock. Equating to 1,024 people in the peak hour. 3m wide footpaths throughout, but reduces to 2.0m at weakest point to dodge chairs and bins at no. 61**	**1**	**4.6m verges both sides. Still need to define dedicated walking space, for now assume 1.5m for alfresco dining, leaving 3.1m space for walking. (3.4m required to achieve higher score)**

10	**Appropriate separation of people walking from traffic**	At the weakest point the buffer achieves A	At the weakest point the buffer achieves B	At the weakest point the buffer achieves C	At the weakest point the buffer achieves D	info	**3**	**Posted speed limit of 40km/h requires 1.65m or more for A, more than 2m provided at weakest point**	**3**	**on street parking, street trees etc will maintain the same seperation for people walking from traffic, with a lower posted speed limit (30km/h)**
11	**Space for cycling**	At the weakest point: If the speed limit is greater than 30kph, cycles are physically separated from other traffic and the effective width of the track is more than 2.5m (1-way) at the narrowest point If the speed limit is 30kph or lower, cycles mix with general traffic if peak hour flow is 200 vehicles or fewer	At the weakest point: If the speed limit is greater than 30 kph, cycles are physically separated from other traffic and the effective width of the track is 2m - 2.5m (1-way) or 3.5m+ (2-way) at the narrowest point If the speed limit is 30kph or lower, cycles mix with general traffic if peak hour flow is 200-500 vehicles	At the weakest point: Cycles are separated from other traffic and the effective width of the lane/track is 1.8-2m (1-way) or 2.5 - 3.4m (2-way) effective width at its narrowest point. If the speed limit is 30kph cycles mix with general traffic if peak hour flow is more than 500 vehicles	At the weakest point does not meet criteria in 1-3 i.e. If cycles are separated from other traffic the track is less than 1.8m effective width at its narrowest point If the speed limit is above 30kph and cycles are mixing with general traffic or in an unseparated cycle lane on the carriageway	info	**0**	**the speed limit is above 30km/h with no dedicated cycle facilities**	**3**	**speed limit will be 30km/h and peak traffic flow lower than 200 per hour (suitable shared space for safe cycling)**
12	**Lighting**	At the weakest point lighting has been specifically designed to prioritise comfort and safety of people walking and cycling, the light quality has been specifically selected for colour and glare	At the weakest point there is purpose designed lighting provided to ensure safety of people walking and cycling	At the weakest point lighting has been designed for motor vehicle safety. Walking areas meet Australian Standards as a consequence of the carriageway being illuminated	At the weakest point does not meet criteria in 1-3 i.e. lighting of walking and/or cycling areas is absent or inconsistent (e.g. light is obstructed by planting) and does not meet Australian Standards	info	**1**	**no dedicated lighting designed specifically for people walking**	**2**	**Concept plan recommends provision for new fit for purpose lighting. Need to confirm details before top score can be given.**
13	**Availability of drinking water**	There is less than 400m to the nearest bubbler in every direction along the street from the centre point of this street	There is 400m to 799m to the nearest bubbler in every direction along the street from the centre point of this street	There is more than 800m but less than 1.2 km to the nearest bubbler in every direction along the street from the centre point of this street	There is more than 1.2 km to the nearest bubbler in every direction along the street from the centre point of this street	info	**3**	**water fountain and drink bottle filler available on north side of Eighth near Whatley traffic signals**	**3**	**this is not expected to change**
14	**Public seating**	Assessing the full length of the street the longest distance between public seats on this street is less than 50m	Assessing the full length of the street the longest distance between public seats on this street is between 50m and 199m	Assessing the full length of the street the longest distance between public seats on this street is between 200m and 399m	Assessing the full length of the street the longest distance between public seats on this street is 400m or more	info	**2**	**longest distance with no seating is 70m south side on approach to Guildford. All other spacing is less than 50m**	**3**	**Public Seating will be provided at less than 50m intervals (as indicated in landscape report)**
15	**Cycle parking**	Assessing the full length of the street the longest distance between available public cycle parking on this street is less than 50m and there is step free access	Assessing the full length of the street the longest distance between available public cycle parking on this street is between 50m and 199m and there is step free access	Assessing the full length of the street the longest distance between available public cycle parking on this street is between 200m and 399m and/or there is not step free access	Assessing the full length of the street the longest distance between available public cycle parking on this street is 400m or more	info	**2**	**cycle parking available at multiple intervals both sides of the street generally 80m apart, with longest on north side at 130m**	**3**	**cycle parking every 50m and with step free access (indicated on the plan)**
16	**Shade for walking**	Assessing the full length of the street there is 90% or more linear coverage of walking space	Assessing the full length of the street there is 75-89% linear coverage of walking space	Assessing the full length of the street there is 50-74% linear coverage of walking space	Assessing the full length of the street there is less than 50% linear coverage of walking space	info	**1**	**88% coverage on north side (205m / 235m). 52% on south side (116m / 225m)**	**1**	**cannot assume greater than 75% as tree species and their canopy coverage is dependant on factors such as the City's requirements, ability to thrive / soil conditions / root zones etc. to be confirmed at detailed design**
17	**Shade for cycling**	Assessing the full length of the street there is 75% or more linear coverage of cycling space	Assessing the full length of the street there is 50-74% linear coverage of cycling space	Assessing the full length of the street there is 25-49% linear coverage of cycling space	Assessing the full length of the street there is less than 25% linear coverage of cycling space	info	**0**	**for southern carrigeway, less than 10% coverage**	**1**	**likely to be at least 25% coverage, but cannot give a higher score for reasons listed above**
18	**Reducing through traffic**	Assessing the whole street there is no through-movement for private motorised traffic	Assessing the whole street through movement for private motorised vehicles is permitted but use of the side streets is indirect (i.e one way or requires at least 2 turns) AND speed limit is 30km/hr or below	Assessing the whole street through movement for private motorised vehicles is permitted but speed limit is 30km/hr or below	Street does not meet criteria in 1-3 i.e. through movement for private motorised vehicles is permitted and speed limit is 40km/hr or above	info	**0**	**no restrictions on vehicle movement**	**1**	**through movement will continue but at a safer speed (30km/h speed limit)**
					Are there any bus services running on this street? Yes/No		**No**		**No**	
19	**Bus stops**	At the weakest performing bus stop: There is sufficient waiting space based on peak patronage that is clear of the walking space; the bus stop has seating; rain and sun protection for 25% of peak customers (or at least 4 people); step free access and safe crossing of any cycleways to access the stop	At the weakest performing bus stop: There is sufficient waiting space based on average patronage that is clear of the walking space; the bus stop has seating; rain and sun protection for at least 4 people; step free access and safe crossing of any cycleways to access the stop	At the weakest performing bus stop: The bus stop has seating and rain and sun protection for at least 4 people	The weakest performing bus stop does not achieve criteria to score 1-3	info				

Healthy Streets Score

Name of street

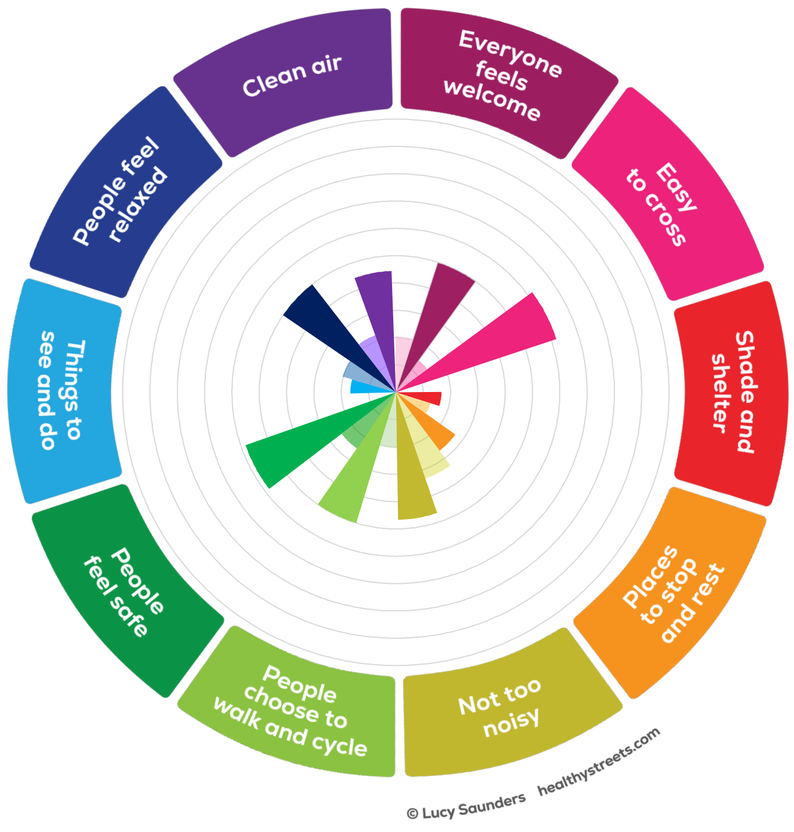
Seventh Ave

Name of street at start intersection

Guildford Rd (not included)

Name of street at end intersection

Whatley Cres (included)



	Existing Layout Score	Proposed Layout Score
Healthy Streets Score	17	42
Everyone feels welcome	20	50
Easy to cross	14	62
Shade and shelter	0	17
Places to stop and rest	13	27
Not too noisy	33	47
People choose to walk and cycle	20	50
People feel safe	25	58
Things to see and do	0	17
People feel relaxed	20	50
Clean air	22	44

Scoring

	Metrics	Score				How do I measure this?	Existing layout	Notes on existing layout scores	Proposed layout	Notes on proposed layout scores
		3	2	1	0					
1	**Traffic speed**	For the hour when vehicle speeds are highest the 85th percentile is below 30kph	For the hour when vehicle speeds are highest the 85th percentile is 30-39 kph	For the hour when vehicle speeds are highest the 85th percentile is 40-49 kph	For the hour when vehicle speeds are highest the 85th percentile is 50kph or more	info	**0**	**Posted speed limit is 50km/h (observed motorists driving at speed with aggression)**	**2**	**Posted speed will change to 40km/h. However, given 60m is the longest distance between slow points in dedicated crossing with a level difference, it is highly unlikely the 85th percentile will climb above 40km/h even at night**
2	**Volume of motorised traffic**	For the hour when traffic volume is at its peak there are 199 or fewer vehicles (both directions)	For the hour when traffic volume is at its peak there are 200-499 vehicles (both directions)	For the hour when traffic volume is at its peak there are 500-999 vehicles (both directions)	For the hour when traffic volume is at its peak there are 1000 or more vehicles (both directions)	info	**1**	**573 vehicles between busiest hour in morning 0800-0900 (Data from MRWA)**	**1**	**uncertain on changes, modelling to be undertaken to confirm. Assume no change for now**
3	**Mix of vehicles**	The only large vehicles using the street are public service vehicles, public transport and vehicles servicing properties on the street	The proportion of large vehicles (excluding public transport) is less than 1% in the peak hour	The proportion of large vehicles (excluding public transport) is 1-3% of motorised traffic in the peak hour	The proportion of large vehicles (excluding public transport) is greater than 3% of motorised traffic in the peak hour	info	**1**	**3% heavy vehicles (data from Main Roads WA 2021)**	**1**	**not likely to change**
4	**Conflict between cycles and turning vehicles**	At the weakest intersection: Measures are in place to reduce the number and speed of turning movements by motor vehicles at intersections and driveway cross-overs AND At signal controlled intersections all conflicting movements between cycles and turning motor vehicles have separated phases during the traffic signal cycle	At the weakest intersection: Measures are in place to reduce the number or speed of turning movements by motor vehicles at intersections and driveway cross-overs AND At signal controlled intersections cycle movements do not have separate phases during the traffic signal cycle but mitigation measures are in place	At the weakest intersection: There are no restrictions on speed or number of turning movements by motor vehicles at intersections and other uncontrolled accesses but there is a space allocated to cycles	At the weakest intersection does not meet criteria in 1-3 i.e. At signal controlled intersections cycle movements do not have separate phases during the traffic signal cycle and there are no mitigation measures in place At uncontrolled intersections there are no restrictions on speed or number if turning movements by motor vehicles and there is no space allocated to cycles	info	**0**	**Vehicles turning off Guildford drive very aggressively to move between gaps in traffic. Very dangerous for people cycling**	**2**	**All side street crossovers, lanes and Seventh Ave bridge designed with priority for people walking. Priority crossing at Seventh bridge, although it is larger than 7m so cannot achieve highest score**
5	**Turning speeds at side-street intersections**	The weakest side-street intersection has a narrow, tight geometry such that a turning motorised vehicle must slow down to less than 5 km/hr and the carriageway is raised to the level of the footpath e.g. footway continuation or raised pedestrian crossing e.g. wombat crossing	The weakest side-street intersection has a narrow, tight geometry such that a turning motorised vehicle must slow down to less than 5 km/hr and instead of a raised carriageway at the intersection there are pram ramps on the desire line	The weakest side-street intersection has only pram ramps at the intersection and these are on the desire line	The weakest side-street intersection does not meet criteria in 1-3 i.e. has no pram ramps or pram ramps are not on the desire line	info	**1**	**car park entries on northern side are suffciently tight to slow vehicles. Score is undone by intersection with Seventh Ave bridge ramp, which has pram ramps on the desire line, but geometry is not tight and creates a total crossing distance of over 15m, with a median refuge, but single distance to the median is 7.5m**	**3**	**It will be very difficult for the every day driver to travel faster than 5km/h with the side street intersections that have steep ramps**
6	**Ease of crossing mid block**	See table	See table	See table	See table	info	**0**	**185m between Whatley and Seventh with no mid-block facilities. No crossing facilities on side streets either**	**3**	**two new dedicated wombat crossings created. No longer than 60m apart between furtherest crossings**
7	**Priority of crossing at intersections**	Score using tables for intersections crossing side streets and main roads and use the lower of the 2 scores if they differ	Score using tables for intersections crossing side streets and main roads and use the lower of the 2 scores if they differ	Score using tables for intersections crossing side streets and main roads and use the lower of the 2 scores if they differ	Score using tables for intersections crossing side streets and main roads and use the lower of the 2 scores if they differ	info	**0**	**no pedestrian refuge on Seventh, therefore does not meet criteria for 1**	**3**	**New dedicated crossing at Seventh on all legs (except south-west where no land use is present)**
8	**Quality of the footpath**	At the weakest point there is an even, level, non-slip surface	At the weakest point there is a non-slip surface without defects but it is not level	At the weakest point there are minor defects but none more than 14mm level difference	At the weakest point there is at least one major defect (a level difference of 15mm or more)	info	**2**	**Footpath is in reasonable condition, no major defects observed, some minor cracks near the St Josephs Church and some expansion joints have gaps but no larger than 14mm**	**3**	**Budget to include footpath improvements**

9	**Space for walking**	At the weakest point the minimum clear walking space achieves A	At the weakest point the minimum clear walking space achieves B	At the weakest point the minimum clear walking space achieves C	At the weakest point the minimum clear walking space achieves D	info	**2**	**Counted 15ppl in 15 mins PM peak hour, meaning 60 per hour. Footpath measures at 2m wide uninterupted on both sides**	**2**	**footpaths to be widened as part of the project, given 90 degree bays come out and larger verge space created. However the smallest pinch point is at 1.9m nearing approach to Guildford on southern side (need 2.6m to get highest score; removal of one parking bay would achieve this)**

10	**Appropriate separation of people walking from traffic**	At the weakest point the buffer achieves A	At the weakest point the buffer achieves B	At the weakest point the buffer achieves C	At the weakest point the buffer achieves D	info	**3**	**4.8m on southern side and 2.4m on northern side.**	**3**	**2.1m seperation created by parking. The turn lane approach to Guildford appears as though there is no seperation but there is a 4.1m verge in this space and only 2.6m is needed for high level of service for walking; leaving 1.5m seperation. Exact same verge width for south-west side of approach to Seventh.**
11	**Space for cycling**	At the weakest point: If the speed limit is greater than 30kph, cycles are physically separated from other traffic and the effective width of the track is more than 2.5m (1-way) at the narrowest point If the speed limit is 30kph or lower, cycles mix with general traffic if peak hour flow is 200 vehicles or fewer	At the weakest point: If the speed limit is greater than 30 kph, cycles are physically separated from other traffic and the effective width of the track is 2m - 2.5m (1-way) or 3.5m+ (2-way) at the narrowest point If the speed limit is 30kph or lower, cycles mix with general traffic if peak hour flow is 200-500 vehicles	At the weakest point: Cycles are separated from other traffic and the effective width of the lane/track is 1.8-2m (1-way) or 2.5 - 3.4m (2-way) effective width at its narrowest point. If the speed limit is 30kph cycles mix with general traffic if peak hour flow is more than 500 vehicles	At the weakest point does not meet criteria in 1-3 i.e. If cycles are separated from other traffic the track is less than 1.8m effective width at its narrowest point If the speed limit is above 30kph and cycles are mixing with general traffic or in an unseparated cycle lane on the carriageway	info	**0**	**no seperated cycle facilities, which is necessary given the 50km/h design speed**	**0**	**No dedicated cycle facilties as the strategy is encouraging cycling along Eighth**
12	**Lighting**	At the weakest point lighting has been specifically designed to prioritise comfort and safety of people walking and cycling, the light quality has been specifically selected for colour and glare	At the weakest point there is purpose designed lighting provided to ensure safety of people walking and cycling	At the weakest point lighting has been designed for motor vehicle safety. Walking areas meet Australian Standards as a consequence of the carriageway being illuminated	At the weakest point does not meet criteria in 1-3 i.e. lighting of walking and/or cycling areas is absent or inconsistent (e.g. light is obstructed by planting) and does not meet Australian Standards	info	**1**	**lighting is okay, but no special lighting for footpaths. Could be an opportunity to explore when underground power comes in**	**1**	**Opportunity to drastically improve lighting as part of the upgrade works. Not expected to be as high quality as Eighth and Whatley, and cannot assume higher score without details**
13	**Availability of drinking water**	There is less than 400m to the nearest bubbler in every direction along the street from the centre point of this street	There is 400m to 799m to the nearest bubbler in every direction along the street from the centre point of this street	There is more than 800m but less than 1.2 km to the nearest bubbler in every direction along the street from the centre point of this street	There is more than 1.2 km to the nearest bubbler in every direction along the street from the centre point of this street	info	**0**	**no water fountain on this street; nearest drinking fountain is on Eighth and Whatley about 180m walk from centrepoint of street. Others available in Donald Park (Sixth Avenue side) - 520m walk and physically seperated by rail - and two fountains available at the War Memorial Park infront of the Rise Building - 300m walk, Guildford Rd a physical barrier**	**0**	**no change. Discuss with City if a water fountain could be considered and where.**
14	**Public seating**	Assessing the full length of the street the longest distance between public seats on this street is less than 50m	Assessing the full length of the street the longest distance between public seats on this street is between 50m and 199m	Assessing the full length of the street the longest distance between public seats on this street is between 200m and 399m	Assessing the full length of the street the longest distance between public seats on this street is 400m or more	info	**0**	**no place to stop and rest on this street, with the exception of some steps (that are not suitable for elderly). Nearest seats available on Eighth approx. 80m walk**	**1**	**Should make provision wil be made for seating at 50m increments; but cannot assume top marks without details**
15	**Cycle parking**	Assessing the full length of the street the longest distance between available public cycle parking on this street is less than 50m and there is step free access	Assessing the full length of the street the longest distance between available public cycle parking on this street is between 50m and 199m and there is step free access	Assessing the full length of the street the longest distance between available public cycle parking on this street is between 200m and 399m and/or there is not step free access	Assessing the full length of the street the longest distance between available public cycle parking on this street is 400m or more	info	**0**	**no cycle parking on the street. About an 80m walk to nearest on Eighth (multiple locations)**	**1**	**Cycle parking will be added at 50m increments; assumption as above**
16	**Shade for walking**	Assessing the full length of the street there is 90% or more linear coverage of walking space	Assessing the full length of the street there is 75-89% linear coverage of walking space	Assessing the full length of the street there is 50-74% linear coverage of walking space	Assessing the full length of the street there is less than 50% linear coverage of walking space	info	**0**	**Less than 10% linear coverage**	**0**	**cannot assume greater than 50% as tree species and their canopy coverage is dependant on factors such as the City's requirements, ability to thrive / soil conditions / root zones etc. to be confirmed at detailed design**
17	**Shade for cycling**	Assessing the full length of the street there is 75% or more linear coverage of cycling space	Assessing the full length of the street there is 50-74% linear coverage of cycling space	Assessing the full length of the street there is 25-49% linear coverage of cycling space	Assessing the full length of the street there is less than 25% linear coverage of cycling space	info	**0**	**Less than 10% linear coverage**	**1**	**as above. Trees provided between walking space and street pavement; however a linear measure on plan suggests 25% can be achieved**
18	**Reducing through traffic**	Assessing the whole street there is no through-movement for private motorised traffic	Assessing the whole street through movement for private motorised vehicles is permitted but use of the side streets is indirect (i.e one way or requires at least 2 turns) AND speed limit is 30km/hr or below	Assessing the whole street through movement for private motorised vehicles is permitted but speed limit is 30km/hr or below	Street does not meet criteria in 1-3 i.e. through movement for private motorised vehicles is permitted and speed limit is 40km/hr or above	info	**0**	**no restrictions on movement**	**0**	**through movement will continue but at a safer speed (30km/h speed limit)**
					Are there any bus services running on this street? Yes/No		**No**		**No**	

19	**Bus stops**	At the weakest performing bus stop: There is sufficient waiting space based on peak patronage that is clear of the walking space; the bus stop has seating; rain and sun protection for 25% of peak customers (or at least 4 people); step free access and safe crossing of any cycleways to access the stop	At the weakest performing bus stop: There is sufficient waiting space based on average patronage that is clear of the walking space; the bus stop has seating; rain and sun protection for at least 4 people; step free access and safe crossing of any cycleways to access the stop	At the weakest performing bus stop: The bus stop has seating and rain and sun protection for at least 4 people	The weakest performing bus stop does not achieve criteria to score 1-3	info				

APPENDIX B

Full size A0 Concept Masterplan at Scale

Maylands Town Centre Streetscape Improvement Plan

MAYLANDS

DRAFT

scale 1:2000@A2 | 1:1000@A0

0 20 40m

plan 22/101/008P

date 25/10/2023

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APPENDIX C

Preliminary Servicing Information

A0

EXISTING (MAJOR) STORMWATER PIT TO BE RELOCATED AWAY FROM NEW KERBLINE

EXISTING (MINOR) STORMWATER PIT TO BE RELOCATED

EXISTING PIT COVER TO BE ADJUSTED TO SUIT NEW PROPOSALS

STREET LIGHTS, SIGNALS, SIGNS ETC WITHIN INTERSECTION EXTENT TO BE RELOCATED SUBJECT TO DETAILED DESIGN

EXISTING (MAJOR) STORMWATER PIT TO BE RELOCATED AWAY FROM NEW KERBLINE AND CROSSING

EXISTING (MINOR) STORMWATER PIT TO BE RELOCATED

EXISTING STORMWATER PIT TO BE RELOCATED

EXISTING STORMWATER PIT TO BE RELOCATED

EXISTING (MAJOR) STORMWATER PIT COVER TO BE UPDATED TO SUIT NEW PROPOSALS

EXISTING (MAJOR) STORMWATER PIT COVER TO BE UPDATED TO SUIT NEW PROPOSALS

EXISTING (MAJOR) STORMWATER PIT COVER TO BE UPDATED TO SUIT NEW PROPOSALS

EXISTING (MINOR) STORMWATER PIT TO BE RELOCATED

APPROX LOCATION OF POWER POLE, TO REMAIN

APPROX LOCATION OF POWER POLE, TO REMAIN

APPROX LOCATION OF POWER POLE, TO REMAIN

APPROX LOCATION OF POWER POLE, TO REMAIN

APPROX LOCATION OF POWER POLE, TO REMAIN

APPROX LOCATION OF POWER POLE, TO REMAIN

APPROX LOCATION OF POWER POLE, TO REMAIN

APPROX LOCATION OF POWER POLE, TO REMAIN

APPROX LOCATION OF POWER POLE, TO REMAIN

SERVICES WITHIN EXISTING FOOTPATH UNLIKELY AFFECTED BY WORKS

CONSIDER RELOCATION OF EXISTING POWER POLE, NOW LOCATED CENTRAL TO FOOTPATH / CROSSING LOCATIONS

EXISTING (MAJOR) STORMWATER PIT TO BE RELOCATED AWAY FROM NEW KERBLINE

NOTE:
WATER MAIN AND GRAVITY SEWER SERVICE RECORD EXTENT ENDS AT WHATLEY CRESCENT / ROWLANDS STREET INTERSECTION

APPROX LOCATION OF LIGHT COLUMN, TO REMAIN SUBJECT TO PROPOSALS LIGHTING REQUIREMENTS

MISC. SERVICE COVER TO BE RELOCATED AWAY FROM NEW KERBLINE

EXISTING (MAJOR) STORMWATER PIT TO BE TO BE CONVERTED TO JUNCTION PIT TO AVOID DIVERSION WORKS

MISC. SERVICE PIT AND ASSOCIATED SERVICES TO BE DIVERTED TO AVOID PROPOSED TREELINE, SUBJECT TO AUTHORITY REQUIREMENTS

MISC. SERVICE COVER TO BE UPDATED TO SUIT NEW PROPOSALS

EXISTING (MINOR) STORMWATER PIT TO BE RELOCATED

MISC. SERVICE COVER TO BE UPDATED TO SUIT NEW PROPOSALS

ROWLANDS STREET

FOR CONTINUATION SEE LAYOUT 2

FOR CONTINUATION SEE LAYOUT 1

SERVICE IMPLICATIONS - LAYOUT 1

SCALE 1:500

EXISTING (MAJOR) STORMWATER PIT COVER TO BE RAISED TO SUIT NEW FOOTPATH LEVELS

EXISTING (MAJOR) STORMWATER PIT TO BE RELOCATED

NEW KERB ALIGNMENT LOCATED OVER EXISTING WATERMAIN, WATER MAIN TO BE RELOCATED AS PER AUTHORITY REQUIREMENTS

APPROX LOCATION OF POWER POLE / STREET LIGHT, TO REMAIN

STREET LIGHTS, SIGNALS, SIGNS ETC WITHIN INTERSECTION EXTENT TO BE RELOCATED SUBJECT TO DETAILED DESIGN

PUBLIC TOILETS AND ASSOCIATED INFRASTRUCTURE TO BE ABANDONED AS REQUIRED

ABOVE GROUND SERVICE ENCLOSURE TO BE ADJUSTED AS REQUIRED

WHATLEY CRES

EXISTING (MAJOR) STORMWATER PIT TO BE ADJUSTED TO SUIT NEW PROPOSALS

EXISTING (MINOR) STORMWATER PIT TO BE RELOCATED

EXISTING (MAJOR) STORMWATER PIT TO BE ADJUSTED TO SUIT NEW PROPOSALS

EXISTING (MINOR) STORMWATER PIT TO BE RELOCATED

EXISTING (MINOR) STORMWATER PIT TO BE RELOCATED

EXISTING ELECTRICITY POLE AND AFFIXED LIGHT TO BE RELOCATED OUTSIDE OF SWEPT PATH CLEARANCE LINE

EXISTING SERVICES COVER TO BE RELOCATED OUTSIDE OF NEW KERB ALIGNMENT

SEVENTH AVE

SERVICES WITHIN EXISTING FOOTPATH UNLIKELY AFFECTED BY WORKS

POTENTIAL RELOCATION OF MISC SERVICE, COVER SHOWN ILLUSTRATIVELY

STORMWATER PIT TO BE RELOCATED TO MATCH NEW KERB ALIGNMENT

EXISTING (MINOR) STORMWATER PIT TO BE RELOCATED

SERVICES WITHIN EXISTING FOOTPATH UNLIKELY AFFECTED BY WORKS

EXISTING (MINOR) STORMWATER PIT TO BE RELOCATED

SERVICES WITHIN EXISTING FOOTPATH UNLIKELY AFFECTED BY WORKS

NEW KERB ALIGNMENT LOCATED OVER EXISTING WATERMAIN, WATER MAIN TO BE RELOCATED AS PER AUTHORITY REQUIREMENTS

POWER / LIGHT POLES ALONG WHATLEY CRESCENT WILL BE CENTRAL TO FOOTPATH FOLLOWING WORKS, CONSIDERATION TO DIVERTING UNDERGROUND TO AVOID OBSTRUCTIONS

SERVICES WITHIN EXISTING FOOTPATH UNLIKELY AFFECTED BY WORKS

NINTH AVE

NEW KERB ALIGNMENT LOCATED OVER EXISTING WATERMAIN, WATER MAIN TO BE RELOCATED AS PER AUTHORITY REQUIREMENTS

CONSIDER RELOCATION OF EXISTING POWER POLE, NOW LOCATED CENTRAL TO FOOTPATH / CROSSING LOCATIONS

EXISTING (MINOR) STORMWATER PIT TO BE RELOCATED

EXISTING (MAJOR) STORMWATER PIT COVER TO BE ADJUSTED TO SUIT PROPOSALS

APPROX LOCATION OF POWER POLE, TO REMAIN

EXISTING (MINOR) STORMWATER PIT TO BE RELOCATED

APPROX LOCATION OF POWER POLE, TO REMAIN

SERVICES WITHIN EXISTING FOOTPATH UNLIKELY AFFECTED BY WORKS

ROWLANDS STREET

FOR CONTINUATION SEE LAYOUT 1

SERVICE COVERS WITHIN EXISTING CROSSING TO BE ADJUSTED TO SUIT NEW LEVELS

EXISTING (MINOR) STORMWATER PIT TO BE RELOCATED

EIGHTH AVE

PIT COVERS TO BE ADJUSTED TO SUIT PROPOSALS

APPROX LOCATION OF POWER POLE, TO REMAIN

IT IS ASSUMED WHERE THE FOOTPATH / KERB ALIGNMENT IS BEEN EXTENDED EXISTING SERVICES WILL BE UNAFFECTED (INCREASED COVER)

EXISTING STORMWATER PIT TO BE RELOCATED

EXISTING STORMWATER PIT TO BE RELOCATED

IT IS ASSUMED WHERE THE FOOTPATH / KERB ALIGNMENT IS BEEN EXTENDED EXISTING SERVICES WILL BE UNAFFECTED (INCREASED COVER)

APPROX LOCATION OF POWER POLE, TO REMAIN

EXISTING (MAJOR) STORMWATER PIT TO BE ADJUSTED TO SUIT NEW KERB ALIGNMENTS AND LEVELS

EXISTING COVER TO BE ADJUSTED TO SUIT NEW LEVELS

EXISTING (MAJOR) STORMWATER PIT TO BE ADJUSTED TO SUIT NEW LEVELS

EXISTING STORMWATER PIT TO BE RELOCATED

EXISTING STORMWATER PIT TO BE RELOCATED

EXISTING (MAJOR) STORMWATER PITS TO BE ADJUSTED TO SUIT NEW LEVELS

APPROX LOCATION OF POWER POLE, TO REMAIN

MISC. PIT COVERS AND ASSOCIATED UTILITIES TO BE DIVERTED AS PART OF WORKS. POTENTIAL FOR PIT COVER LEVELS TO BE LOWERED SUBJECT TO AUTHORITY APPROVAL

EXISTING (MAJOR INTERSECTION) POWER POLE AND LIGHT TO BE RELOCATED OUTSIDE OF NEW CARRIAGEWAY

EXISTING (MAJOR) STORMWATER PIT TO BE ADJUSTED TO SUIT NEW LEVELS

EXISTING STORMWATER PITS TO BE RELOCTED TO SUIT NEW KERB ALIGNMENT

EXISTING STORMWATER PITS TO BE ADJUSTED TO SUIT NEW LEVELS

EXISTING SEWER PIT TO ADJUSTED TO SUIT NEW LEVELS

EXISTING SEWER PIT TO ADJUSTED TO SUIT NEW LEVELS

SE

SERVICE IMPLICATIONS - LAYOUT 2

SCALE 1:500

Notes

1. The purpose of this drawings is to highlight the high level service implications of the works based on concept plans and available data.
2. This drawing is not based on a detailed feature survey and therefore locations shown are illustrative only.
3. It is recommended that a detailed SubScan survey is undertaken to fully coordinate all works, included but not limited to tree locations and kerb buildouts.
4. Stormwater pits are labeled as follows:
   - 4.1. Minor - assumed stand alone pit, no upstream diversion works
   - 4.2. Major - assumed junction pit, requiring up stream pipe diversions
5. All existing streetlights along Eighth Avenue to be relocated outside of new carriageway
6. All service pit covers to be adjusted to suit new levels, relevant authority to approve in writing any works including increasing / decreasing cover and diversion works.
7. Services / Power poles indicated to remain are subject to authority approval of planting scheme, authorities to be consulted and approval in writing obtained as required.

Rev	Date	Drw	Chk	App
P2	25.10.2023	SRW	SRW	SRW
P1	23.10.2023	SRW	SRW	TJ

Client

Project
Maylands Town Centre Streetscape

Drawing Status
Concept

Title
High Level Site Servicing Implications

Drawing No.
07231_D_SK003

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