COTTESLOE HEALTHY STREETS

Investigating Opportunities for
Broome Street and Marmion Street

February 2023

PJA

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Healthy Streets®

Prepared for

mainroads WESTERN AUSTRALIA

Document Information

Cottesloe Healthy Streets Assessment Report

Broome Street and Marmion Street

Prepared for Main Roads WA

This Report has been commissioned by Main Roads WA as part of the Low Cost Urban Road Safety Program for the purposes of identifying existing issues and developing preliminary ideas.

Main Roads WA is not obliged to undertake all or any of the Report's recommendations. Final street improvement proposals are subject to further design studies, investigation and stakeholder consultation in agreement with the Town of Cottesloe.

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Revision	Status	Author	Approved by	Issue Date
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1.3	Client Feedback	Eric Denholm (TBB)	Tim Judd (PJA)	13/02/2022
1.4	L.Saunders Review	Eric Denholm (TBB)	Tim Judd (PJA)	16/02/2022

Table of Contents

Introduction

Why Cottesloe?

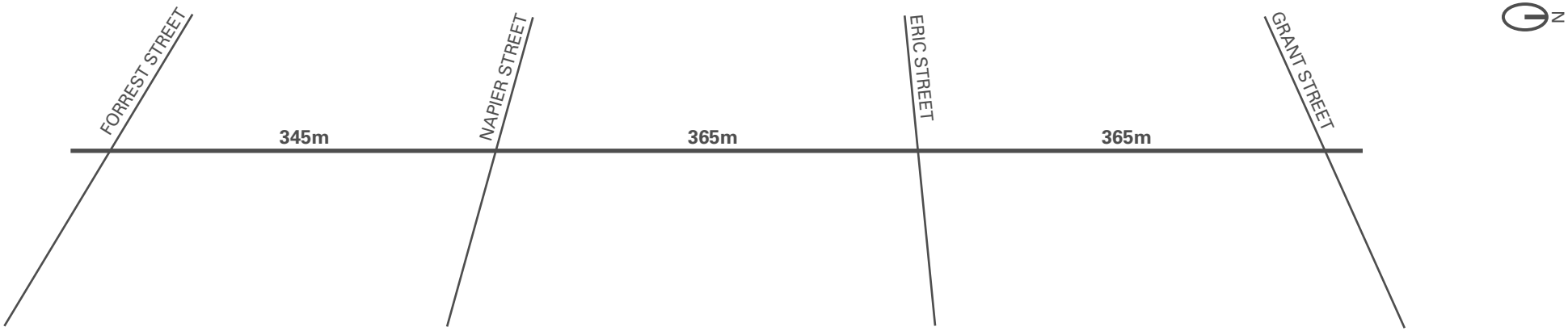
The project is a strategic trial opportunity to look at how 'typical' West Australian residential streets with default 50km/h speed zones, and little to no traffic management measures, can be reimagined through the lens of Healthy Streets.

Broome and Marmion Streets have been selected as they predominately serve a residential area and have potential for more people focused outcomes given their very wide 40m road reservations.

Main Roads WA is attempting to understand if there is any merit in assessing the value and effectiveness of other project interventions through a Healthy Streets lens.

The Study Area

Broome Street and Marmion Street, Cottesloe



What is Healthy Streets?

A human-centred framework for embedding public health in transport, public realm and planning

Healthy Streets is a framework of 10 Indicators which describe what humans need from their streets.

When we improve these 10 Indicators we deliver better places for people to live in and thereby improve health and wellbeing.

There are lots of different ways we can change how our streets are designed, managed and used day-to-day to improve the Healthy Streets Indicators. We choose the best options for improving each street by first looking at how the street performs against each Indicator. We can each make our own assessment by going out onto the street, observing how the space is being used and answering the questions in the Healthy Streets Qualitative Assessment Tool (available here).

There is also a more technical assessment that can be done by designers and engineers which focuses on the traffic and the road layout, this is called the Healthy Streets Design Check.

Once we have identified the priorities we can decide how we want to improve the Indicators. What we choose to do will depend on the context of the street, what will be the best use of the available resources and what will be acceptable to people.

The 10 Healthy Streets Indicators

The Healthy Streets Indicators are the foundation of the Healthy Streets Approach. They describe important aspects of the human experience of being on streets that should be considered in the design and evaluation of your project.

Source: Healthy Streets Ltd, Healthy Streets Evaluation Framework

The 10 Healthy Streets Indicators

Everyone feels welcome

Streets must be welcoming places for everyone to walk, spend time and engage with other people. This is necessary to keep us all healthy through physical activity and social interaction. It is also what makes places vibrant and keeps communities strong. The best test for whether we are getting our streets right is whether the whole community, particularly children, older people and disabled people are enjoying using this space.

Easy to cross

Our streets need to be easy to cross for everyone. This is important because people prefer to be able to get where they want to go directly and quickly so if we make that difficult for them they will get frustrated and give up. This is called 'severance' and it has real impacts on our health, on our communities and on businesses too. It is not just physical barriers and lack of safe crossing points that cause severance, it's fast moving traffic too.

Not too noisy

Noise from road traffic impacts on our health and wellbeing in many ways, it also makes streets stressful for people living and working on them as well as people walking and cycling on them. Reducing the noise from road traffic creates an environment in which people are willing to spend time and interact.

Things to see and do

Street environments need to visually appealing to people walking and cycling, they need to provide reasons for people to use them – local shops and services, opportunities to interact with art, nature, other people.

Shade and shelter

Shade and shelter can come in many forms – trees, awnings, colonnades – and they are needed to ensure that everyone can use the street whatever the weather. In sunny weather we all need protection from the sun, in hot weather certain groups of people struggle to maintain a healthy body temperature, in rain and high winds we all welcome somewhere to shelter. To ensure our streets are inclusive of everyone and welcoming to walk and cycle in no matter the weather we must pay close attention to shade and shelter.

People choose to walk and cycle

We all need to build regular activity into our daily routine and the most effectively to do this is to walk or cycle for short trips or as part of longer public transport trips. People will choose to walk and cycle if these are the most attractive options for them. This means making walking and cycling and public transport use more convenient, pleasant and appealing than private car use.

People feel relaxed

The street environment can make us feel anxious – if it is dirty and noisy, if it feels unsafe, if we don't have enough space, if we are unsure where to go or we can't easily get to where we want to. All of these factors are important for making our streets welcoming and attractive to walk, cycle and spend time in.

Places to stop and rest

Regular opportunities to stop and rest are essential for some people to be able to use streets on foot or bicycle because they find travelling actively for longer distances a challenge. Seating is therefore essential for creating environments that are inclusive for everyone as well as being important for making streets welcoming places to dwell.

People feel safe

Feeling safe is a basic requirement that can be hard to deliver. Motorised road transport can make people feel unsafe on foot or bicycle, especially if drivers are travelling too fast or not giving them enough space, time or attention. Managing how people drive so that people can feel safe walking and cycling is vital.

People also need to feel safe from antisocial behaviour, unwanted attention, violence and intimidation. Street lighting and layout, 'eyes on the street' from overlooking buildings and other people using the street can all help to contribute to the sense of safety.

Clean air

Air quality has an impact on the health of every person but it particularly impacts on some of the most vulnerable and disadvantaged people in the community – children and people who already have health problems. Reducing air pollution benefits us all and helps to reduce unfair health inequalities

Source: healthystreets.com

Complementary Projects

Direct and Indirect Influences to Consider

MRWA Low Cost Urban Road Safety Program

A substantial proportion of all crash risks, including fatalities and serious injury crashes, happen on local streets and intersections, which are funded and managed by Local Governments. Main Roads WA data shows that approximately 3,500 crashes occured on local streets between 2015 and 2019.

To improve the safety of these roads for local communities, the State Government is implementing a four-year Low Cost Urban Road Safety Program (Low Cost URSP). The program will deliver treatments to local roads, on an area-wide or whole-of-street basis, to reduce crash risks for people driving, walking and cycling.

Main Roads WA has been working in collaboration with Local Government to implement the program. Typically, the arrangement for funds sees Main Roads WA covering all aspects of design and construction costs, via reimbursement, while Local Government will be responsible for a range of activities, including;

- community consultation;
- design drawing approvals;
- procurement of works;
- delivery of treatments (project management);
- evaluation (data collection pre and post treatment) and reporting; and
- ongoing maintenance.

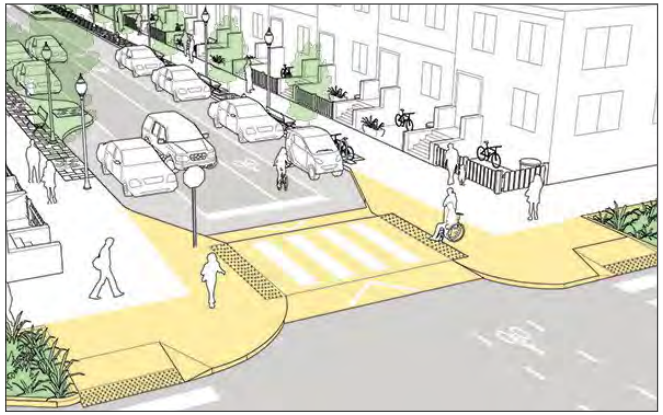
It is Main Roads WA responsibility to identify and prioritise projects each year.

As the program's safety aspects need to consider people driving, walking and cycling, Main Roads WA is testing the use of the Healthy Streets® framework, including the Design Check Tool for Australia, to ensure the evaluation of existing and proposed conditions address basic human needs on local streets.

Example of Design Treatments That May be Considered

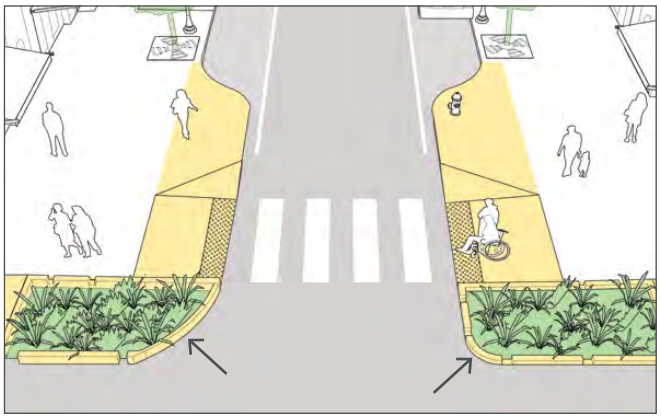
Mini-Roundabout

Reduces crash severity and frequency. Crossings give people walking priority and can be placed on walking desire lines.



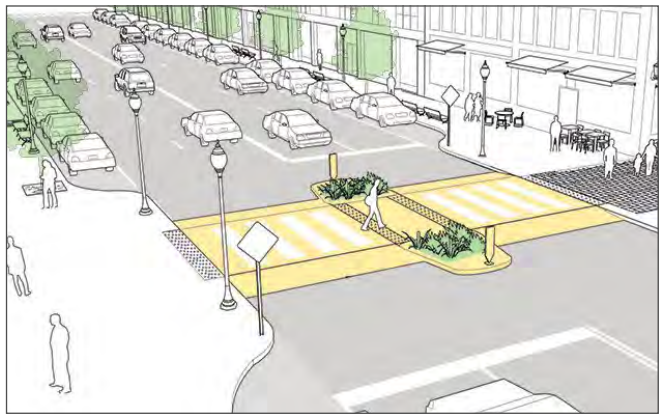
Side Street Continuous Footpath Treatment

Slows approaching vehicles and turning vehicles and creates a safer crossing point for people walking.



Tighter Kerb Radii

Tighter kerb radii ensures vehicles turning do so cautiously, with the added benefit of ensuring footpaths are straight.



Mid-Block Crossing

Placed on known desire lines or key near key destinations. Reduces distances people need to walk to safely cross (particularly on long blocks).

Images Source: NACTO Urban Street Design Guide

Cottesloe Foreshore Redevelopment

$22 million redevelopment

Cottesloe foreshore is one of Western Australia's most iconic beaches and a premier tourist attraction that draws visitors from across the State, Australia, and the world.

The Cottesloe Foreshore Redevelopment Project intends to improve beach access, create additional recreational space, reduce traffic speed and volume, and make it easier for people waking. The plan also includes an amphitheatre of grass terraces, a lookout and fitness area, and a piazza.

A revitalised foreshore will support new and existing businesses in the area and revitalise the local economy. It will assist in encouraging local tourism as well as create jobs at a time when Western Australia is hoping to diversify its economy beyond mining and is looking to welcome tourists back after two years of border restrictions.

The project does not directly impact or include Marmion or Broome Streets, but it is likely to reinforce the importance of the east west connections and side streets for people walking and cycling heading west and east, to and from the beach.

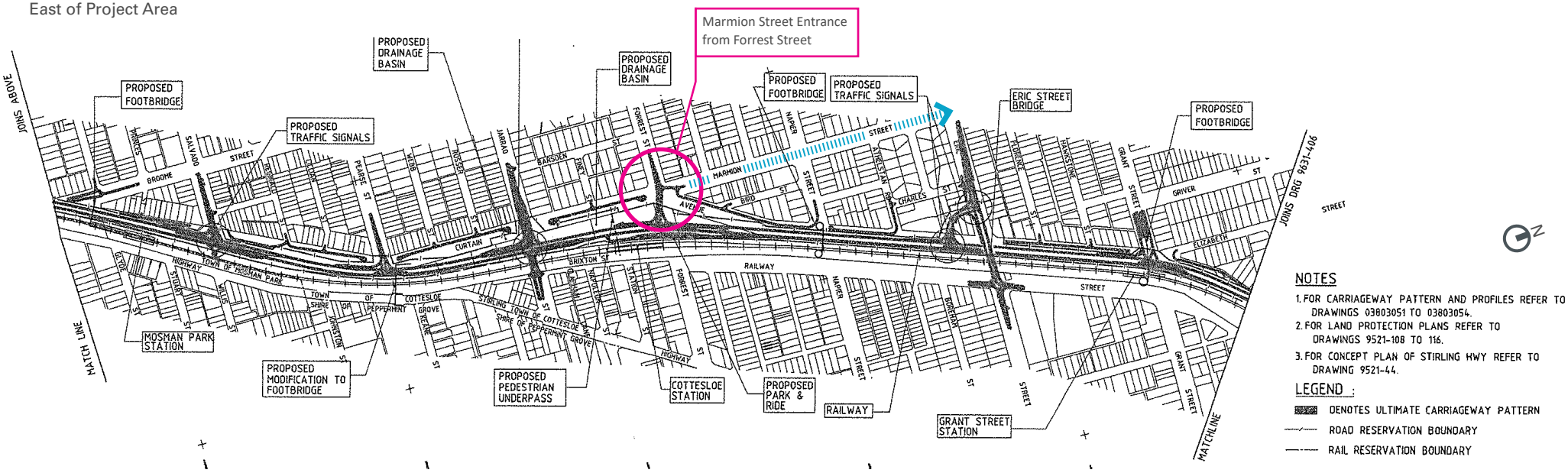
Images Source: Aspect Studios c/- Town of Cottesloe

Complementary Projects

Direct and Indirect Influences to Consider

Curtin Avenue Concept Plan

East of Project Area



Main Roads WA has recently classified Curtin Avenue as a State Road.

Curtin Avenue is an important freight route connecting Fremantle Inner Harbour to the north via Port Beach Road, Curtin Avenue and West Coast Highway, to routes such as Reid Highway, Whitfords Avenue and Ocean Reef Road to the east.

Curtin Avenue may see a number of container trucks using the route to access the Inner Harbour from the north, including RAV4 classified trucks (27.5m long).

The final design and alignment of Curtin Avenue is subject to further detailed planning.

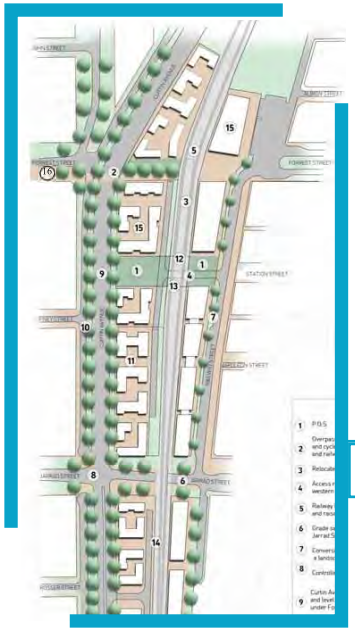
The project does not directly impact Broome Street or Marmion Street, save for a potential to slightly reconfigure the entrance to Marmion from Forrest Street.

In the long term, it is important that regional traffic is discouraged from rat-running through the Marmion and Broome Street north-south connections.

Image Source: Airey Ryan & Hill Consulting Engineers c/- Main Roads WA (1995)

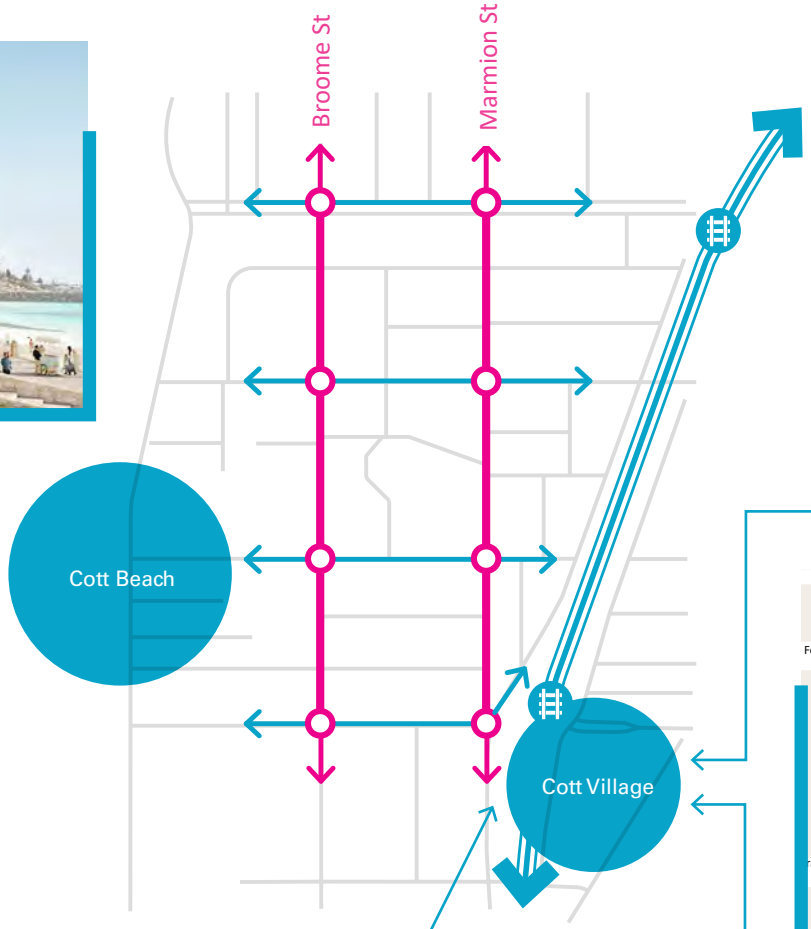
Other Nearby Projects and Redevelopments

Indiana Tea House Hotel Development

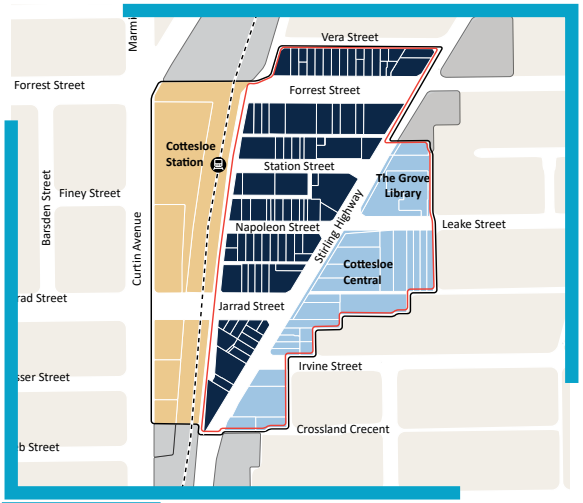


Railway Lands Concept

Subject to Curtin Avenue Final Alignment



Station St Place Making Plan



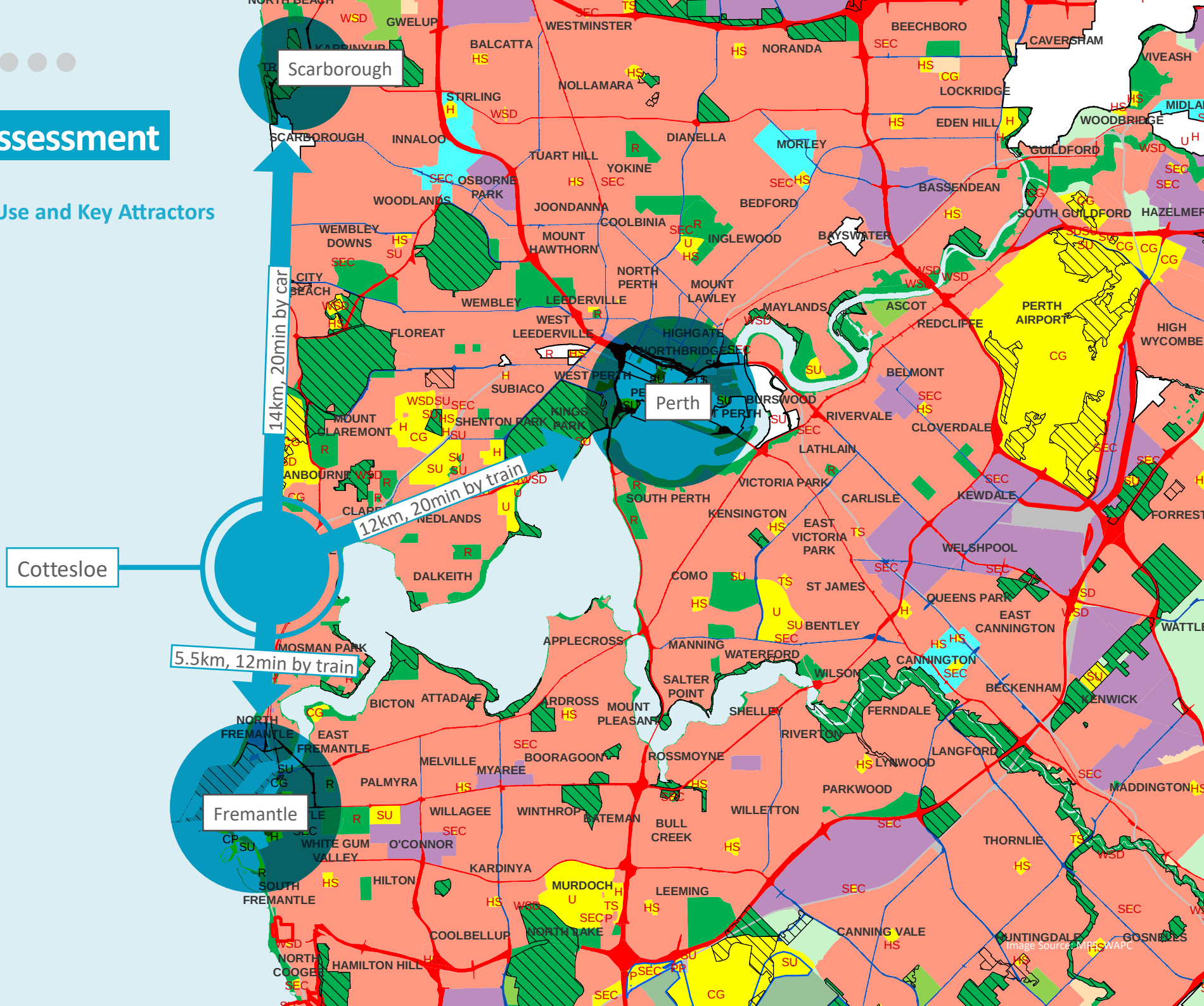
Cott Village

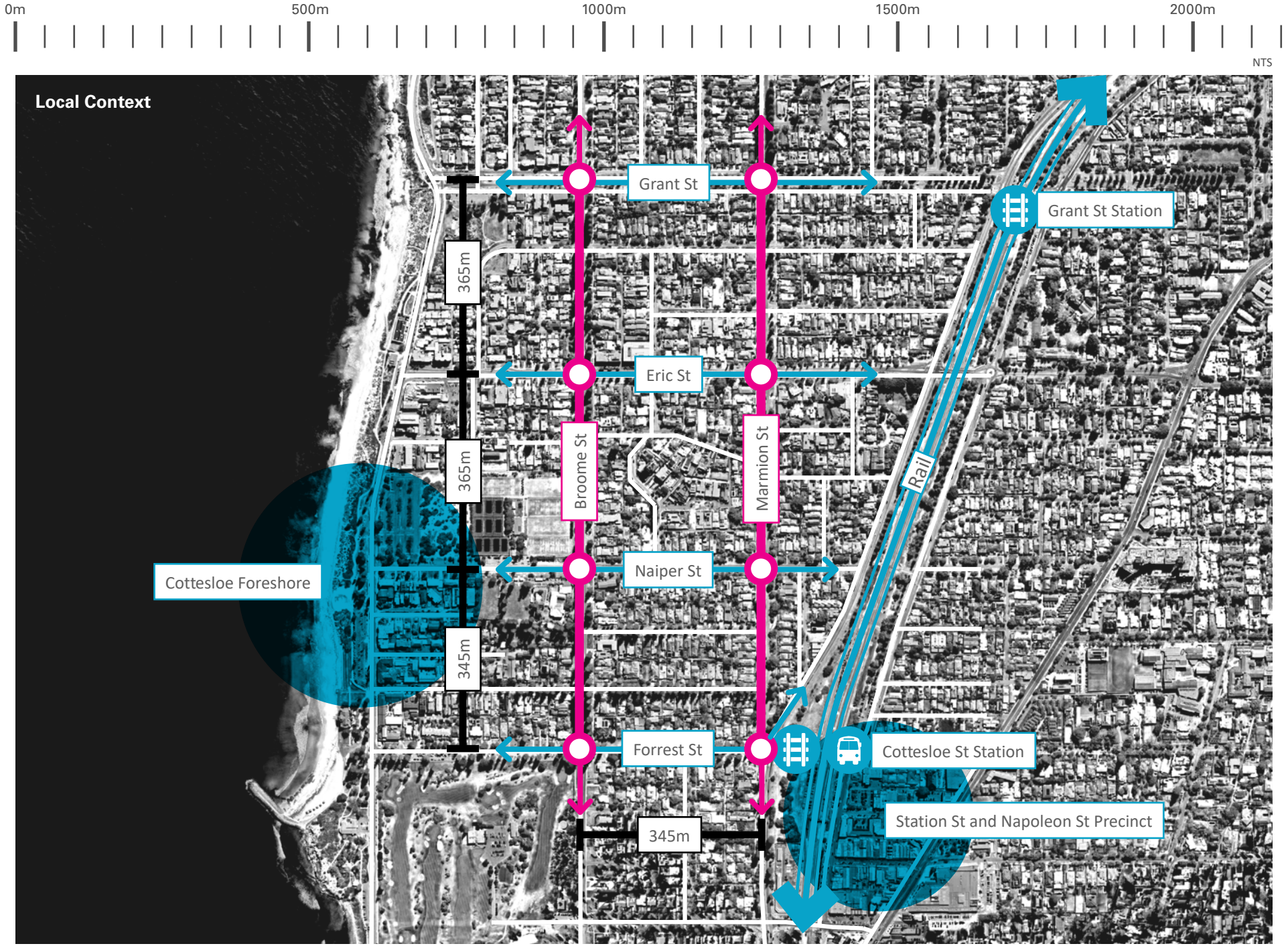
Images Source: Town of Cottesloe

Spatial Assessment

Context, Land Use and Key Attractors

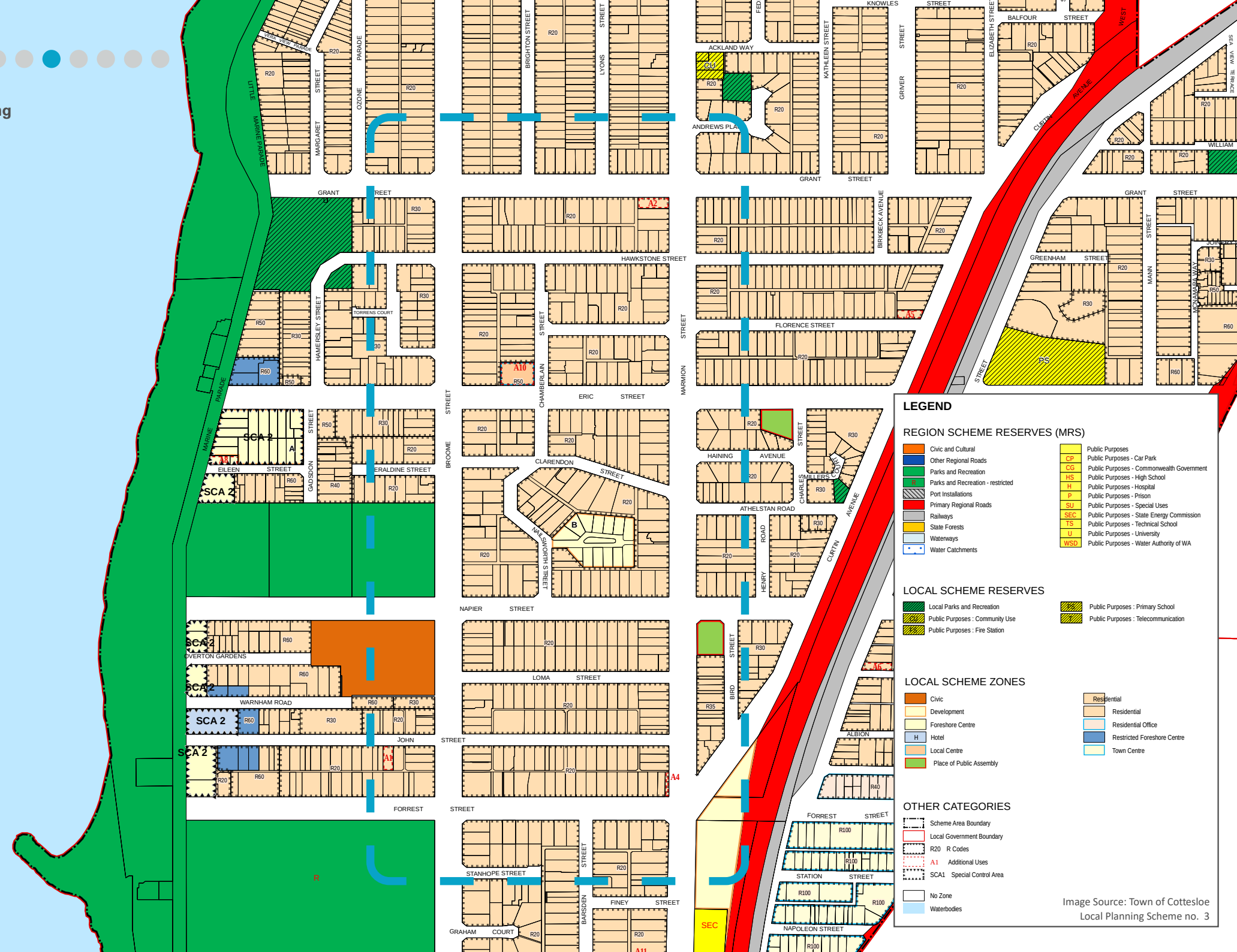
Regional Context





Aerial Source: Nearmap

Zoning


LEGEND
REGION SCHEME RESERVES (MRS)
Civic and Cultural
Other Regional Roads
Parks and Recreation
Parks and Recreation - restricted
Port Installations
Primary Regional Roads
Railways
State Forests
Waterways
Water Catchments
Public Purposes
Public Purposes - Car Park
Public Purposes - Commonwealth Government
Public Purposes - High School
Public Purposes - Hospital
Public Purposes - Prison
Public Purposes - Special Uses
Public Purposes - State Energy Commission
Public Purposes - Technical School
Public Purposes - University
Public Purposes - Water Authority of WA
LOCAL SCHEME RESERVES
Local Parks and Recreation
Public Purposes : Community Use
Public Purposes : Fire Station
Public Purposes : Primary School
Public Purposes : Telecommunication
LOCAL SCHEME ZONES
Civic
Development
Foreshore Centre
Hotel
Local Centre
Place of Public Assembly
Residential
Residential
Residential Office
Restricted Foreshore Centre
Town Centre
OTHER CATEGORIES
Scheme Area Boundary
Local Government Boundary
R20 R Codes
A1 Additional Uses
SCA1 Special Control Area
No Zone
Waterbodies
Image Source: Town of Cottesloe
Local Planning Scheme no. 3

Local Character

A snapshot of Broome Street and Marmion Street

Some corner homes brought forward to meet the street

Large road reserves; long straight street pavement; north folk island pines

Generous green verges; approximately 13.0m from street pavement to footpath, typically lawn

Trees in both the street reserve and private front setback areas support local bird life

Large lawns in front verges (public land, often maintained by landowners)

Masonry street walls define street edge adjacent Cottesloe Civic Centre

Shop fronts on corners create opportunities for local business

Local Attractions

Destinations for people walking and cycling

Shopping and Retail

IGA Supermarket

Boatshed Market

Napolean Street, Cott Village

Woolworths Supermarket

Entertainment, Food and Beverage

Daisies Delicatessen

Vans, Cottesloe Village

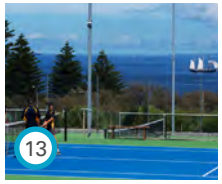
Cotteloe Beach Hotel; Il Lido Italian Restaurant; Amberjacks Fish and Chips

Parks and Recreation

Grant Marine Park

Cottesloe Beach

Cottesloe Civic Centre Playground



Cottesloe Tennis Club

Urban Structure

Destinations for people walking and cycling

Land Use and Built Form

The immediate locality of the study area largely comprises low density residential homes on large suburban blocks, with some medium to high density apartment developments scattered throughout.

There are various other commercial and retail offerings intermingled throughout the beach-side locality. Many of these attractors generally have a good relationship to the street, meaning they should be easy to access and contribute to the place's walk appeal (although there are some accessibility issues, as identified in the Local Street Level Assessment).

Cottesloe benefits from generous street reserve widths (40m wide for major local streets and 20m wide for most other minor streets) mixed with large front setbacks (typically 6m from the road reserve boundary). The space accommodates large North Folk Island pine trees, contributing to the feel of a relaxed coastal context.

Study Area

Non-residential buildings

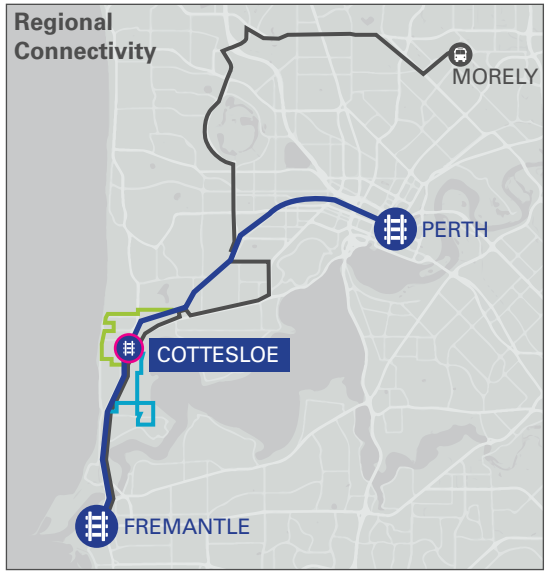
Connectivity Assessment

Public Transport

District and Regional Connectivity

Bus and Train Services

Bus 102	Buses every 20 mins at peak, connecting to Cottesloe Station
Bus 107	Buses every 20 mins at peak, connecting to Claremont
Bus 998	Buses every 15 mins at peak, circle route connecting Fremantle to Morely
Fremantle Train Line	Trains to Perth and Fremantle approx. every 12mins at peak times



COTTESLOE BEACH

GRANT STREET STATION

BUS 102

800m 10 minute walk

FREMANTLE TRAIN LINE

800m 10 minute walk

BUS 102

COTTESLOE STATION

BUS 107

BUS 998

BUS 102

Cycling Connectivity

Long Term Cycle Network

Primary Routes

Mainly focused for high demand corridors that connect major destinations of regional importance. They form the spine of the cycle network and are often located adjacent to major roads, rail corridors, rivers and ocean foreshores. Primary routes are vital to all sorts of bike riding, including medium or long-distance commuting / utility, recreational training and tourism trips.

Secondary Routes

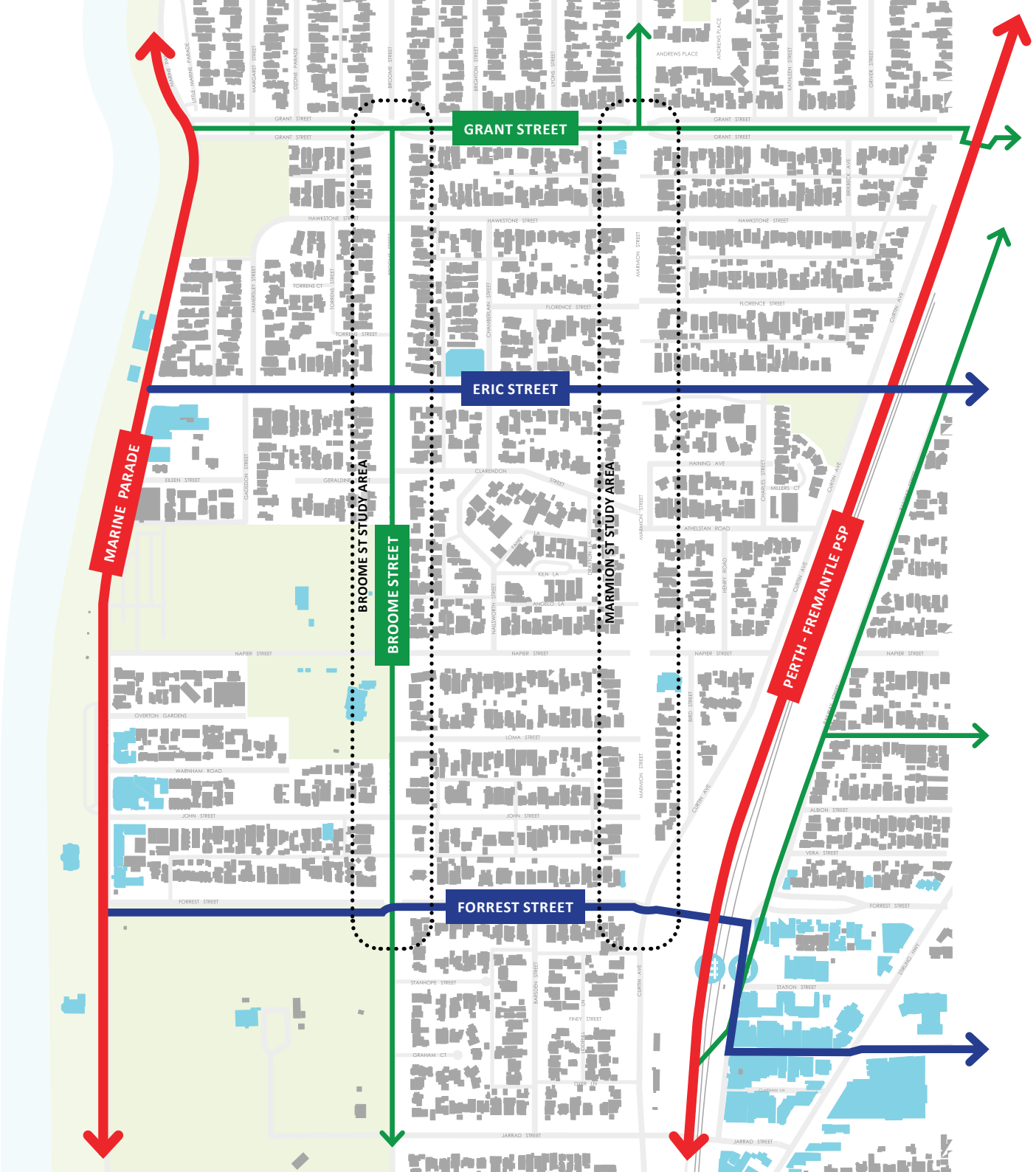
Moderate level of demand, providing connectivity between primary routes and major activity centres such as shopping precincts, industrial areas or major health, education, sporting and civic facilities.

Local Routes

Lower level of demand providing critical access to higher order routes, local amenities, and recreational spaces. Predominantly located in local residential areas, local routes often support the start or end of each trip, and as such need to cater for the needs of users of all ages and abilities.

While the type of cycling infrastructure is to be planned on a case-by-case basis, for local routes as with Broome Street, having people on bikes sharing with traffic in a safer slower speed environment is often encouraged, especially in residential areas. On-road cycling is safe when vehicles speeds are below 30km/h. For streets designed to accommodate the default speed limit of 50km/h, seperated cycling infrastructure is necessary to provide safety for people cycling.

Data Source: Department of Transport



Walking Network

Mapping Desire Lines and Key Destinations

> *"do we prioritise people walking while accommodating cars; or are we prioritisng cars while barely accommodating people?*
>
> - Lucy Saunders

Walking forms part of nearly every journey by usually taking place at least at the beginning and end of each trip. Walking encompasses all differing types of people, including those with physical disability, sensory impairments, intellectual disability, illness or injury, older people, children and those using assistive technology. These people account for around 4 in 10 people in the population. People need a welcoming environment to walk in groups as well as alone, after dark as well as during daylight and in all types of weather.

Although the north-south routes of Broome Street and Marmion Street accommodate people walking and cycling for both recreation and commuting purposes, the east-west connections of the Cottesloe grid play a vital role in connecting the beach with transport and urban services.

It will be important that the treatment of side streets and intersections along Broome Street and Marmion Street consider the natural east-west desire lines that characterise the walking network.

Areas of high walking activity around key local attractions

Vehicle Movement

Traffic behaviour and volume

Typical traffic flow has been both estimated using Google traffic map and reviewing traffic count data supplied by the Town.

Within the Google traffic map, the three general categories are, Green – No typical traffic delays, Orange – medium typical traffic delays and Red – typically experiences traffic delays.

Google collects traffic data from tracking smartphone movements from users who have toggled their location to 'on' in the Google Maps application. With increased amounts of people using Google maps as a navigation tool, the data collected is often more informative than spot counts.

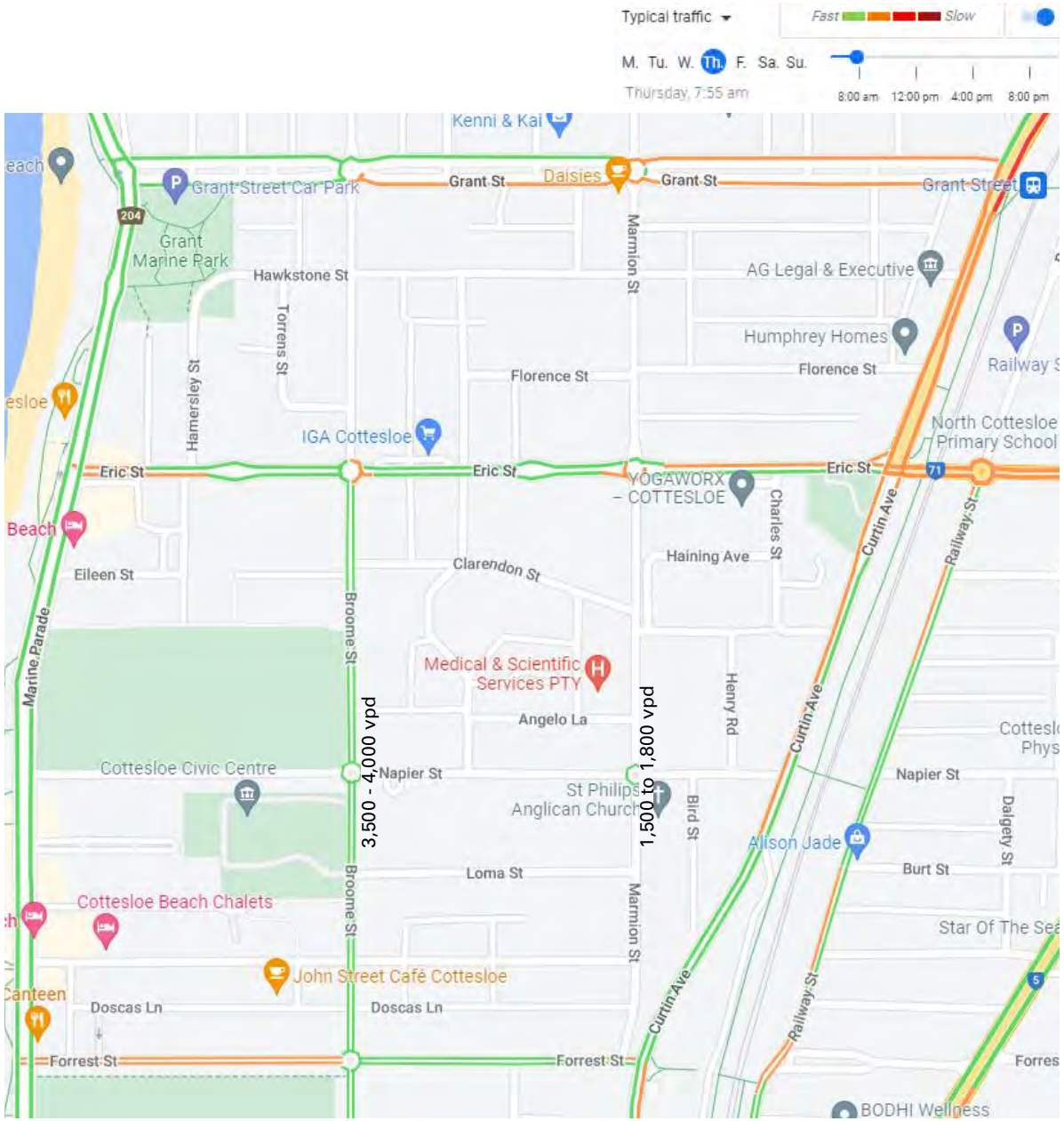
As Broome Street is coloured Green this indicates free flowing traffic that typically does not experience any delays. Marmion Street does not have any data.

Broome Street is classified as a Local Distributor Road and would have a theoretical capacity for carrying up to 6,000 vehicles per day. Traffic counts data shows an average weekday traffic volume is between 3,500 to 4,000 vehicles per day.

Marmion Street is classified as a Local Access Road and would have a theoretical capacity for carrying up to 3,000 vehicles per day. Traffic counts data shows an average weekday traffic volume is between 1,500 to 1,800 vehicles per day.

While there is no traffic speed data provided, due to the long straight sections of street pavement along both Broome Street and Marmion Street, there is the potential to drive at or above the default 50km/h speed limit. There have also been recorded complaints received by the Council from local residents of inappropriate speeding along these streets.

Neither of these streets are routes for use by Restricted Access Vehicles. However, they do cater for Refuse Trucks and as-of-right vehicles.



Data Source: Google Maps

Crash Data

2017-2021

There have been no reported crashes involving people walking or cycling during 2017-2021. This does not mean that the street is safe and welcoming for all to walk and cycle. Given the high motor vehicle speeds observed, it is likely that many people are choosing not to walk or cycle on these streets at present and hence the rates of injuries of people walking and cycling are low.

Broome Street

The majority of crashes within the most recent five-year period are at the intersections along Broome Street, with Eric Street experiencing eight crashes, Grant Street two crashes and Napier Street also two crashes. There have been seven crashes at the intersection with Forest Street.

The remaining are mid-block crashes with no specific trend or pattern.

The intersection crashes are (as expected) right angle crashes potentially as a result of entering the intersection too fast, not stopping in time or without looking properly.

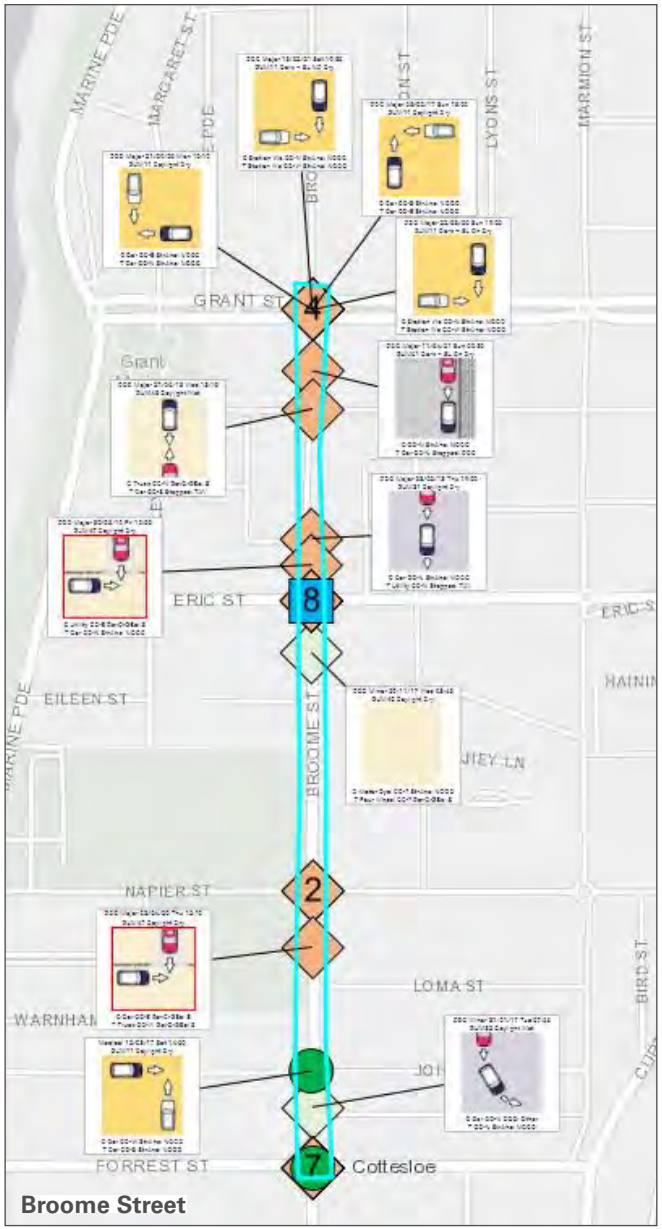
A number of mid-block crashes are rear-end crashes potentially due to frequent drive way access and vehicles travelling too fast.

Marmion Street

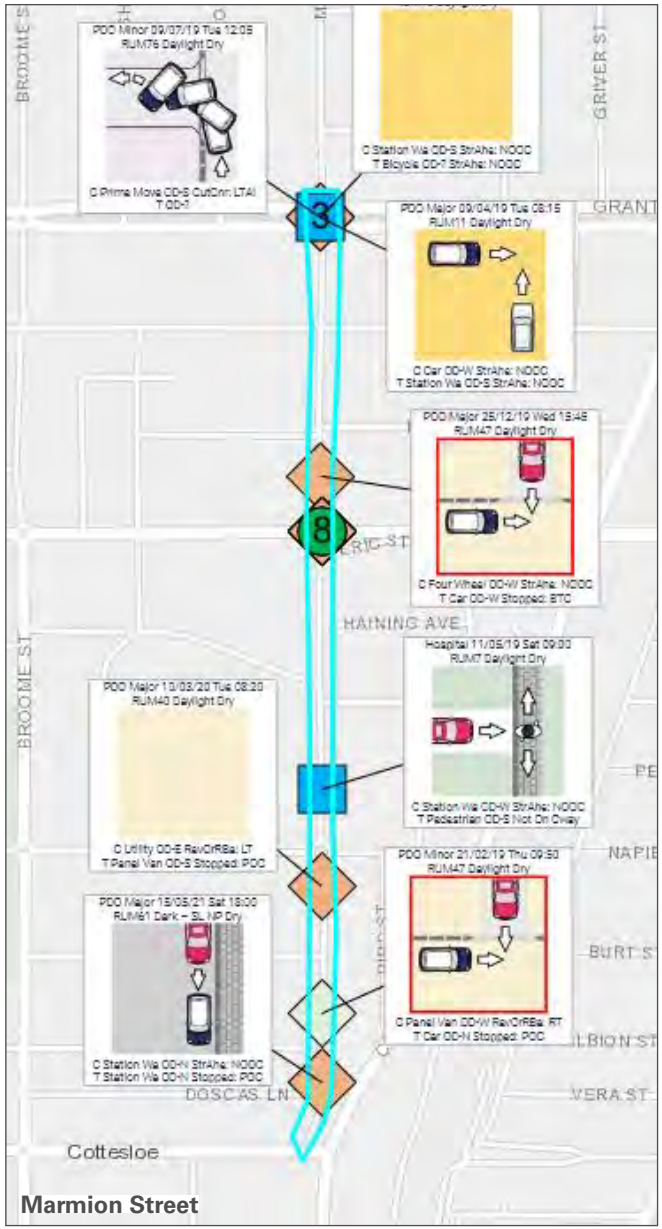
Similar to Broome Street, the majority of crashes within the most recent five-year period are at the intersections along Marmion Street, with eight recorded at the intersection with Eric Street and three at the intersection with Grant Street.

Consistent with Broome Street, the mid-block crashes have no specific trend or pattern.

The intersection crashes are (as expected) right angle crashes potentially as a result of entering the intersection too fast, not stopping in time or without looking properly.



Broome Street



Marmion Street

Data Source: Main Roads WA Crash Map

Local Street Level Assessment

Cottesloe streets look very attractive; with beautiful homes, wide green verges and large Norfolk Island pine trees.

...But there are many safety and comfort issues that discourage walking and cycling

~50% canopy cover

Despite Cottesloe's perception of 'leafy green'; the measured street segments have either just below or just above 50% linear coverage of shade over the footpaths (higher performing streets have over 75%)

+50km/h traffic speeds

People driving consistently exceed the posted speed limit, with speeds at intersections and mid-block making it difficult to cross and unsafe to share the road with people cycling

0 places to stop and rest

No publicly accessible seating to accommodate people who require a break, or to socialise and interact on the streets

1.2m space for walking

Typical footpath width, which is too skinny to comfortably accommodate two people walking side by side with another approaching in the other direction

The Healthy Streets Design Check Tool

The measurement of both Broome Street and Marmion Street has been undertaken using the Healthy Streets Design Check Tool for Australia.

The Design Check contains 19 metrics, each one having a direct effect on one or more of the 10 Healthy Streets Indicators.

The metrics are assessed by making use of traffic count data, assessing the streets weakest point, how the street performs as a whole and how buses are catered for within the street. These scoring categories are presented below.

How are the 19 Design Metrics Measured?

- Metrics 1-3 Using traffic count data
- Metrics 4-12 Find the weakest point
- Metrics 13-18 The whole street
- Metric 19 Only applicable where buses go

The benefit of undertaking a Healthy Streets Check is to enable a comparison between the existing environment and a proposed new environment that the project may ultimately lead to. Other benefits include:

- Helps designers to think about the whole street/precinct and the human experience, shifting the focus from individual modes and movement.
- Facilitate conversation between stakeholders about designs.
- Provides an evidence-based score for decision makers to understand how well a street serves the needs of its users.

Each metric is given a score of 0-3, based on detailed guidance. a '0' score represents a design element that is not meeting basic human needs and is a critical safety issue.

The final Healthy Streets score is out of 100. A score of 60 is considered to be a street that is meeting most people's basic needs. A score above 80 is a welcoming space for most people.

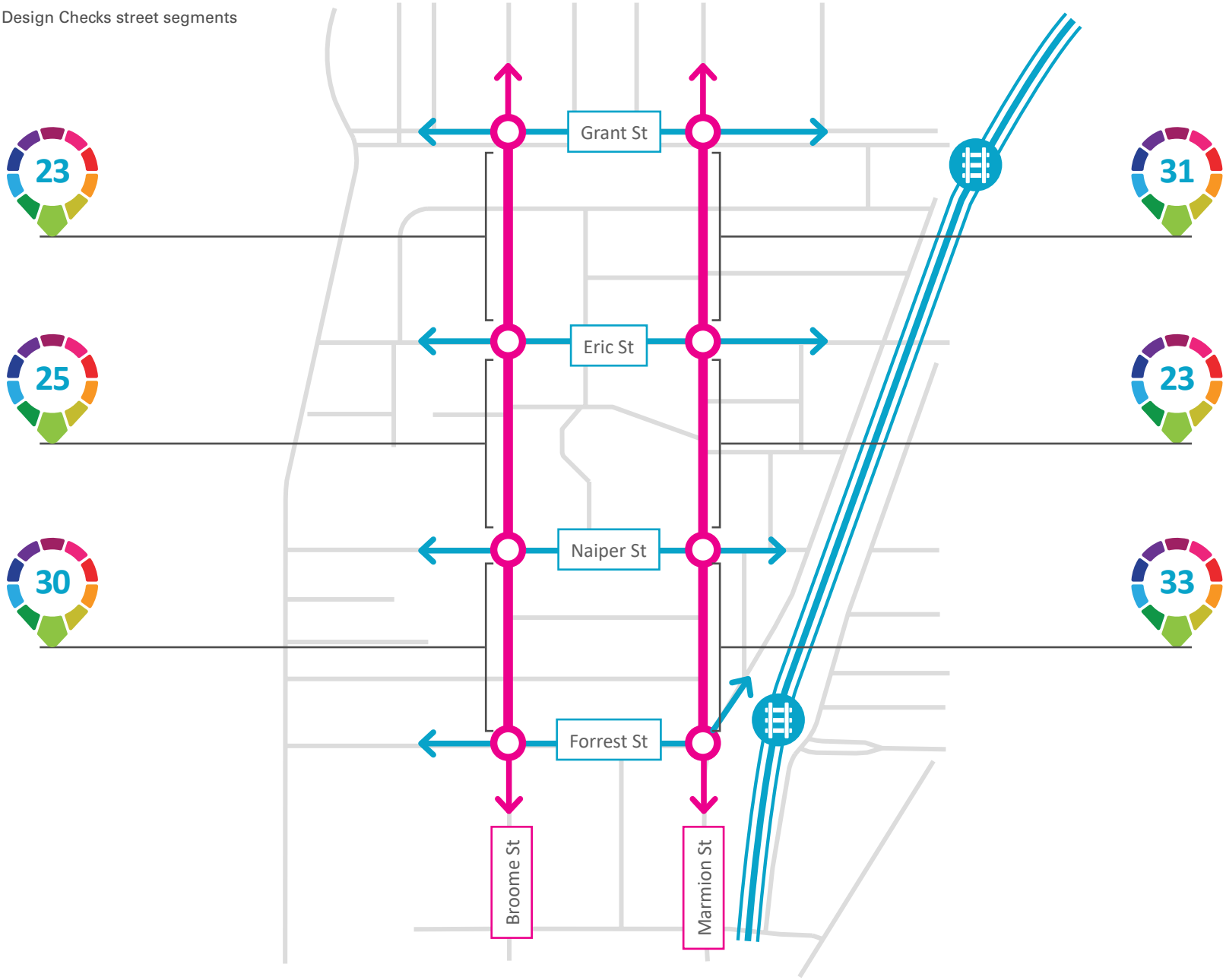
This table demonstrates how each of the design metrics contribute to the overall Healthy Streets score.

Healthy Streets **Indicators**

Design Check Metric	Everyone feels welcome	Easy to cross	Shade and Shelter	Places to stop and rest	Not too noisy	people choose to walk and cycle	People feel safe	Things to see and do	People feel relaxed	Clean sir
1 Traffic speed	●	●			●	●	●		●	●
2 Volume of motorised Traffic	●	●			●	●	●		●	●
3 Mix of vehicles	●	●			●	●	●		●	●
4 Conflict between cycles and turning vehicles	●					●	●		●	
5 Turning speeds at side-street intersections	●	●				●	●		●	
6 Ease of crossing mid-block	●	●				●	●		●	
7 Priority of crossing at intersections	●	●				●	●		●	
8 Quality of footpath	●					●			●	
9 Space for walking	●			●		●	●		●	
10 Appropriate seperation of people walking from traffic	●				●	●	●		●	
11 Space for cycling	●			●		●	●		●	
12 Lighting	●					●	●		●	
13 Availability of drinking water	●			●		●	●	●	●	
14 Public seating	●			●		●		●	●	
15 Cycle parking	●			●		●			●	
16 Shade for walking	●		●			●		●	●	
17 Shade for cycling	●		●			●		●	●	
18 Reducing through traffic	●	●			●	●			●	
19 Bus Stops	●		●	●		●			●	

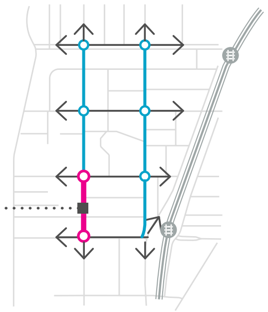
Healthy Streets Design Check Scores

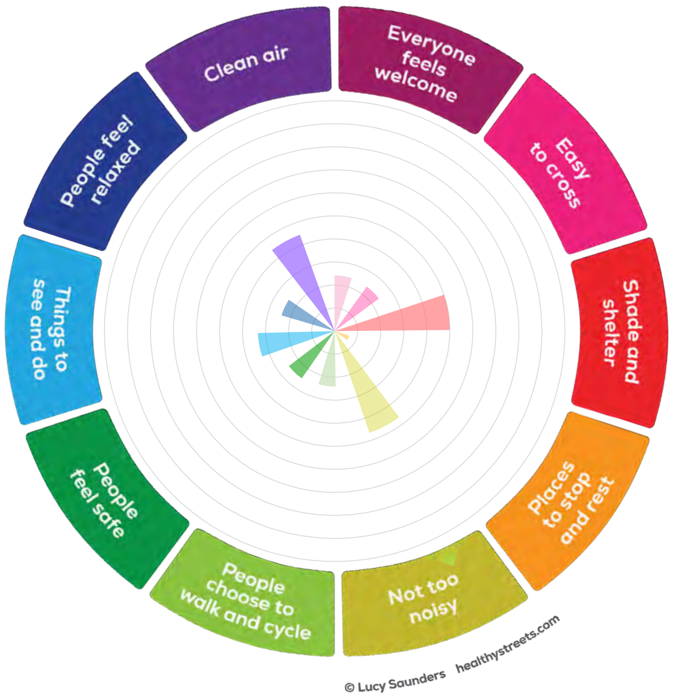
Results from the six Design Checks street segments
Scores out of 100



30 Broome Street - Forrest to Napier

Design Check Key Findings





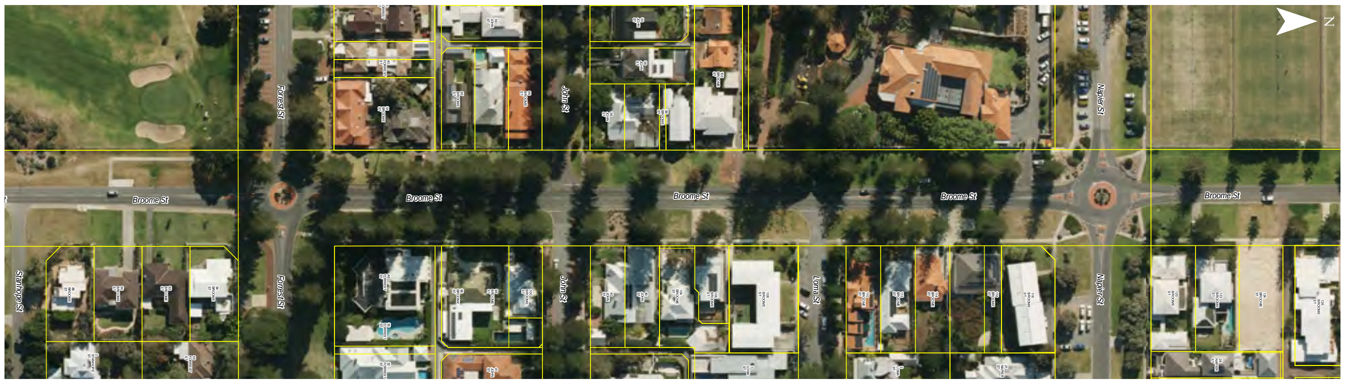
Broome Street - Forrest to Napier	Existing Layout Score
Healthy Streets Score	**30**
Everyone feels welcome	24
Easy to cross	24
Shade and shelter	50
Places to stop and rest	7
Not too noisy	47
People choose to walk and cycle	24
People feel safe	25
Things to see and do	33
People feel relaxed	24
Clean air	44
Total no. of '0' Scores (out of 19 metrics)	10

What is good in this section:

- Low volume of traffic
- Low proportion of larger vehicles (bus excepted)
- Separation between people walking and traffic
- Shade for cycling – on road

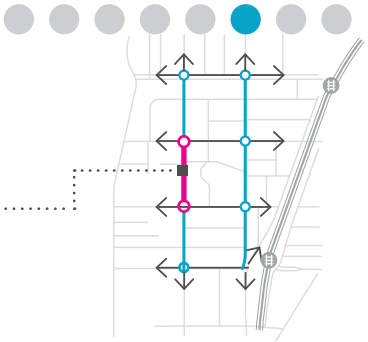
What is not so good in this section:

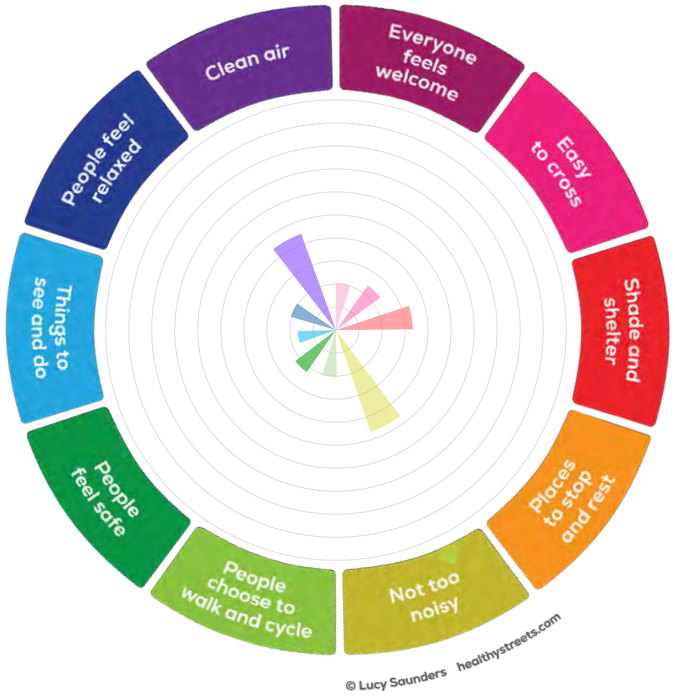
- Traffic speed – above 50km/h
- Turning speed at intersections
- Midblock crossings
- Priority of crossings (side streets and midblock)
- Space for walking
- Space for cycling
- Shade for walking
- Availability of public drinking water
- Availability of public seating
- Availability of cycle parking
- Lighting
- No measures to reduce through traffic



25 Broome Street - Napier to Eric

Design Check Key Findings





Broome Street - Napier to Eric	Existing Layout Score
Healthy Streets Score	**25**
Everyone feels welcome	20
Easy to cross	24
Shade and shelter	33
Places to stop and rest	0
Not too noisy	47
People choose to walk and cycle	20
People feel safe	22
Things to see and do	17
People feel relaxed	20
Clean air	44
Total no. of '0' Scores (out of 19 metrics)	11

What is good in this section:

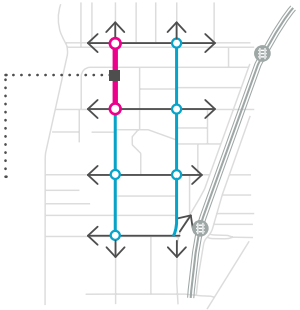
- Low volume of traffic
- Low proportion of larger vehicles (bus excepted)
- Separation between people walking and traffic

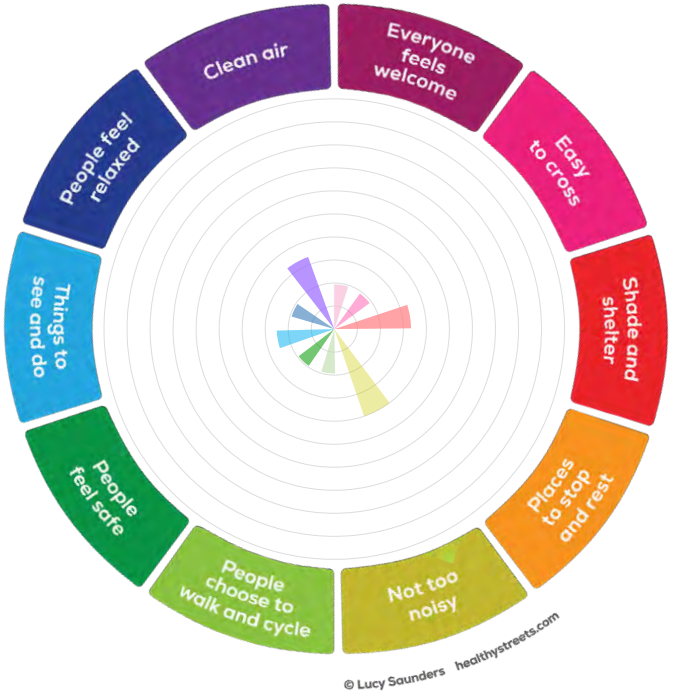
What is not so good in this Section:

- Traffic speed – above 50km/h
- Turning speed at intersections
- Midblock crossings
- Priority of crossings (side streets and midblock)
- Space for walking
- Space for cycling
- Shade for walking
- Shade for cycling
- Availability of public drinking water
- Availability of public seating
- Availability of cycle parking
- Lighting
- No measures to reduce through traffic

23 Broome Street - Eric to Grant

Design Check Key Findings





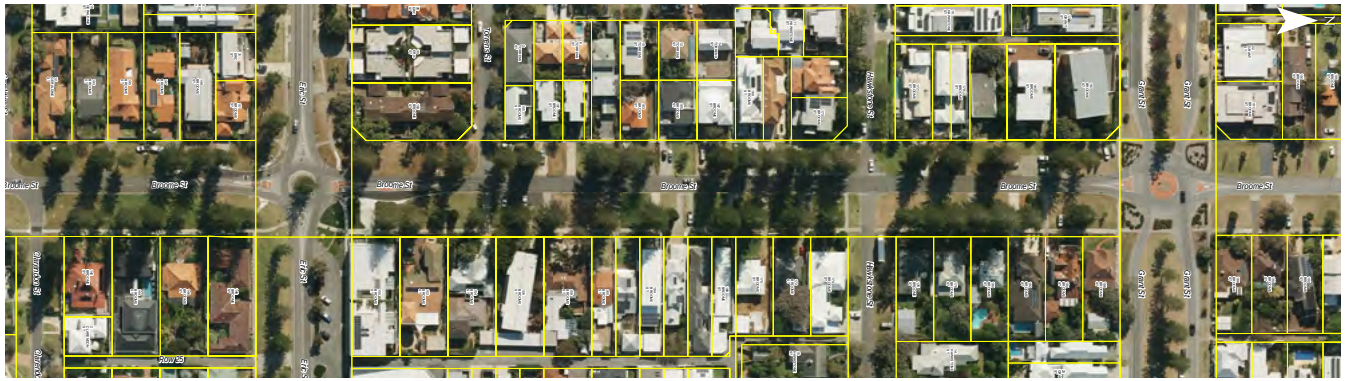
Broome Street - Eric to Grant	Existing Layout Score
Healthy Streets Score	**23**
Everyone feels welcome	19
Easy to cross	19
Shade and shelter	33
Places to stop and rest	0
Not too noisy	40
People choose to walk and cycle	19
People feel safe	19
Things to see and do	25
People feel relaxed	19
Clean air	33
Total no. of '0' Scores (out of 19 metrics)	11

What is good in this section:

- Low volume of traffic
- Low proportion of larger vehicles (bus excepted)
- Separation between people walking and traffic
- Shade for cycling – on road

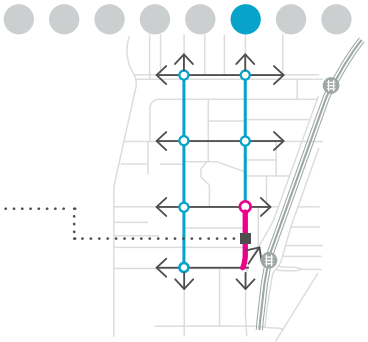
What is not so good in this section:

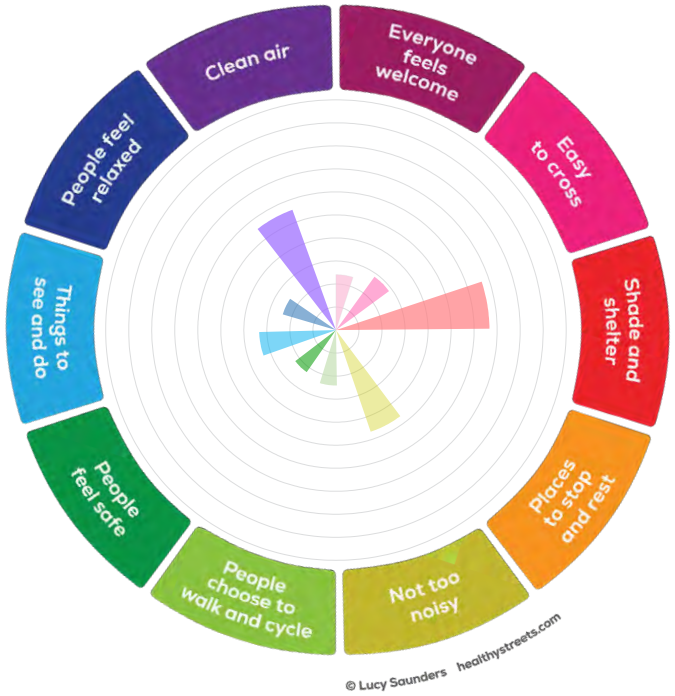
- Traffic speed – above 50km/h
- Turning speed at intersections
- Midblock crossings
- Priority of crossings (side streets and midblock)
- Space for walking
- Space for cycling
- Shade for walking
- Availability of public drinking water
- Availability of public seating
- Availability of cycle parking
- Lighting
- Bus stop facilities
- No measures to reduce through traffic



33 Marmion Street - Forrest to Napier

Design Check Key Findings





Marmion Street - Forrest to Napier	Existing Layout Score
Healthy Streets Score	**33**
Everyone feels welcome	24
Easy to cross	29
Shade and shelter	67
Places to stop and rest	0
Not too noisy	47
People choose to walk and cycle	24
People feel safe	22
Things to see and do	33
People feel relaxed	24
Clean air	56
Total no. of '0' Scores (out of 19 metrics)	11

What is good in this Section:

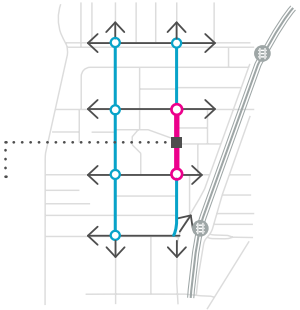
- Low volume of Traffic
- Low proportion of larger vehicles (bus excepted)
- Separation between people walking and traffic
- Shade for cycling - on road

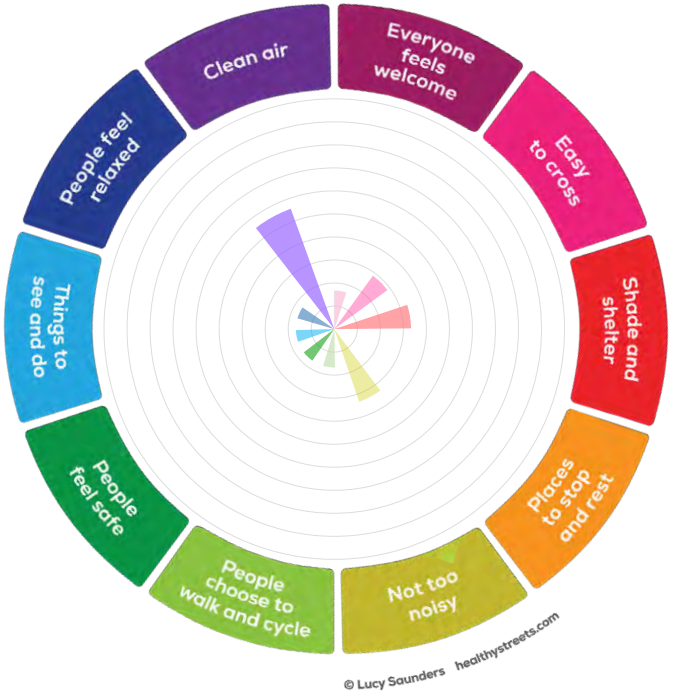
What is not so good in this Section:

- Traffic speed – above 50km/h
- Turning speed at intersections
- Midblock crossings
- Priority of crossings (side streets and midblock)
- Space for walking
- Space for cycling
- Shade for walking
- Availability of public drinking water
- Availability of public seating
- Availability of cycle parking
- Lighting
- No measures to reduce through traffic

23 Marmion Street - Napier to Eric

Design Check Key Findings





Marmion Street - Napier to Eric	Existing Layout Score
Healthy Streets Score	**23**
Everyone feels welcome	17
Easy to cross	29
Shade and shelter	33
Places to stop and rest	0
Not too noisy	33
People choose to walk and cycle	17
People feel safe	17
Things to see and do	17
People feel relaxed	17
Clean air	56
Total no. of '0' Scores (out of 19 metrics)	12

What is good in this section:

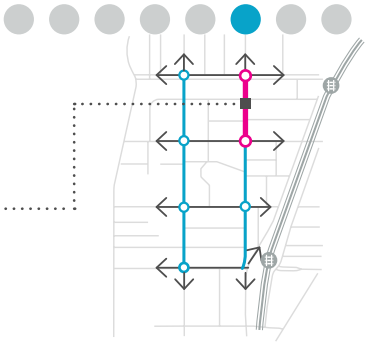
- Low volume of traffic
- Low proportion of larger vehicles (bus excepted)
- Shade for cycling – on road

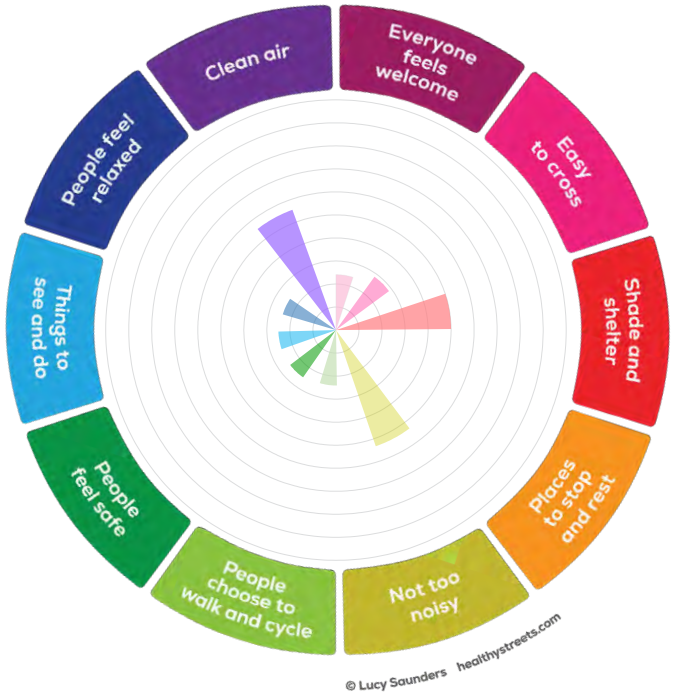
What is not so good in this section:

- Traffic speed – above 50km/h
- Turning speed at intersections
- Midblock crossings
- Priority of crossings (side streets and midblock)
- Separation between people walking and traffic
- Space for walking
- Space for cycling
- Shade for walking
- Availability of public drinking water
- Availability of public seating
- Availability of cycle parking
- Lighting
- No measures to reduce through traffic

31 Marmion Street - Eric to Grant

Design Check Key Findings





Marmion Street - Eric to Grant	Existing Layout Score
Healthy Streets Score	**31**
Everyone feels welcome	24
Easy to cross	29
Shade and shelter	50
Places to stop and rest	0
Not too noisy	53
People choose to walk and cycle	24
People feel safe	25
Things to see and do	25
People feel relaxed	24
Clean air	56
Total no. of '0' Scores (out of 19 metrics)	11

What is good in this Section:

- Low volume of traffic
- Low proportion of larger vehicles (bus excepted)
- Separation between people walking and traffic
- Shade for cycling - on road

What is not so good in this Section:

- Traffic speed – above 50km/h
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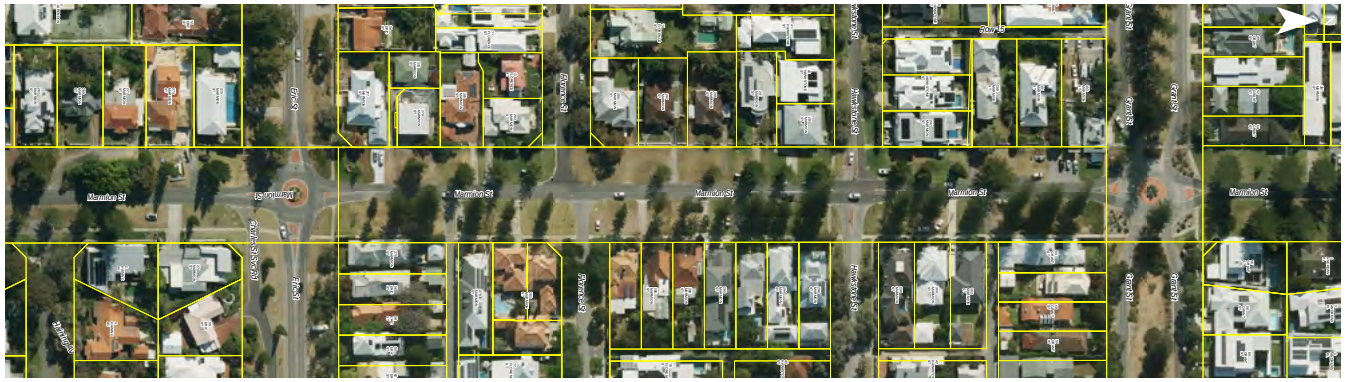
- Separation between people walking and traffic
- Space for walking
- Space for cycling
- Shade for walking
- Availability of public drinking water
- Availability of public seating
- Availability of cycle parking
- Lighting
- No measures to reduce through traffic



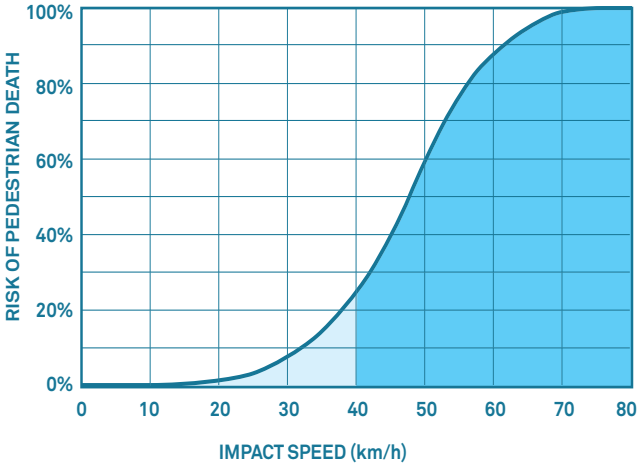
Common Issues

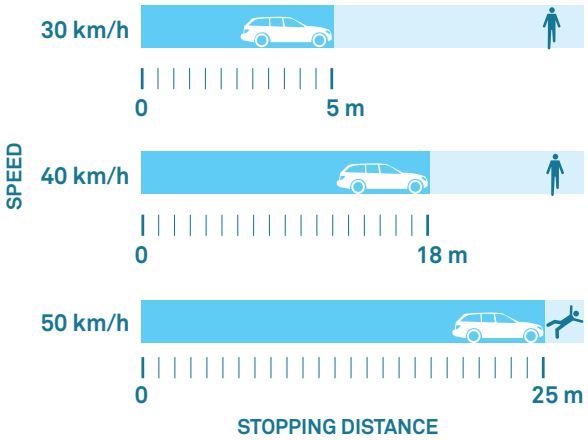
Typical ‘0’ scores that warrant addressing

Long stretches of wide open road encourages speed

No mid-block crossings

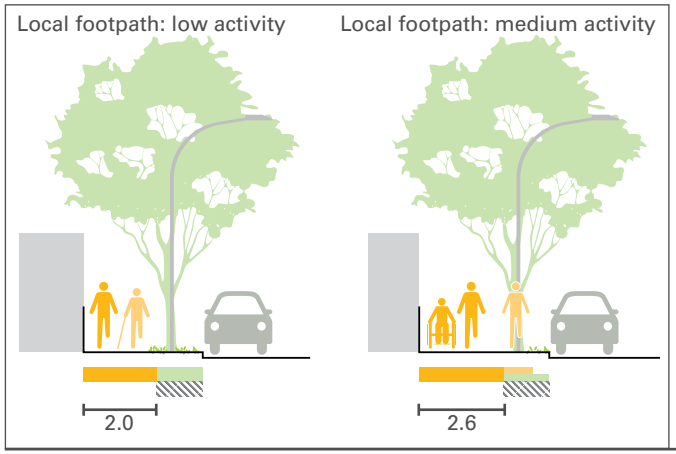
no protected bicycle lanes





The relationship between impact speed and risk of death for people walking and increased stopping distances
Source: NACTO Global Street Design Guide

Large kerb radii allows vehicles to turn at speed; no priority to people walking, who must give way to moving vehicles in roundabouts



Healthy Streets Design Check Tool Guidance to achieve a high score for footpath width (adapted from TfNSW Walking Space Guide)

Although verges are large and separation from vehicles is more than adequate for safety of people walking, the footpath itself is only 1.2m wide which is no sufficient for allowing two people to walk side by side having a conversation uninterrupted if another person approaches in the other direction. The footpath gets squeezed at points from overgrown vegetation creating a hazard for elderly people and those who are mobility impaired.

Road pavement approaches to roundabouts designed with generous swept paths for larger vehicles meaning most vehicles are still carrying speed entering roundabouts. No priority for people walking.

Road pavement on Grant Street roundabouts is very large encouraging vehicles to travel at dangerous speeds through the intersection.

Painted white line shoulders are not suffcient protection for people cycling given traffic speeds of 50km/h. Shared space for cycling appropriate at 30km/h.

No footpath outside Tennis Courts on Broome Street; frequently used by School buses to pick and drop off students.

Footpath abrutly stops on Broome Street before Tennis Courts.

Due to the wide verges the footpaths have the advantage of remaining on the desire line, meaning people walking can navigate in a direct manner. However, improvements could be made to ensure people crossing side streets have priority, which would also have the additional benefit of slowing vehicles approaching Broome Street and Marmion Street.

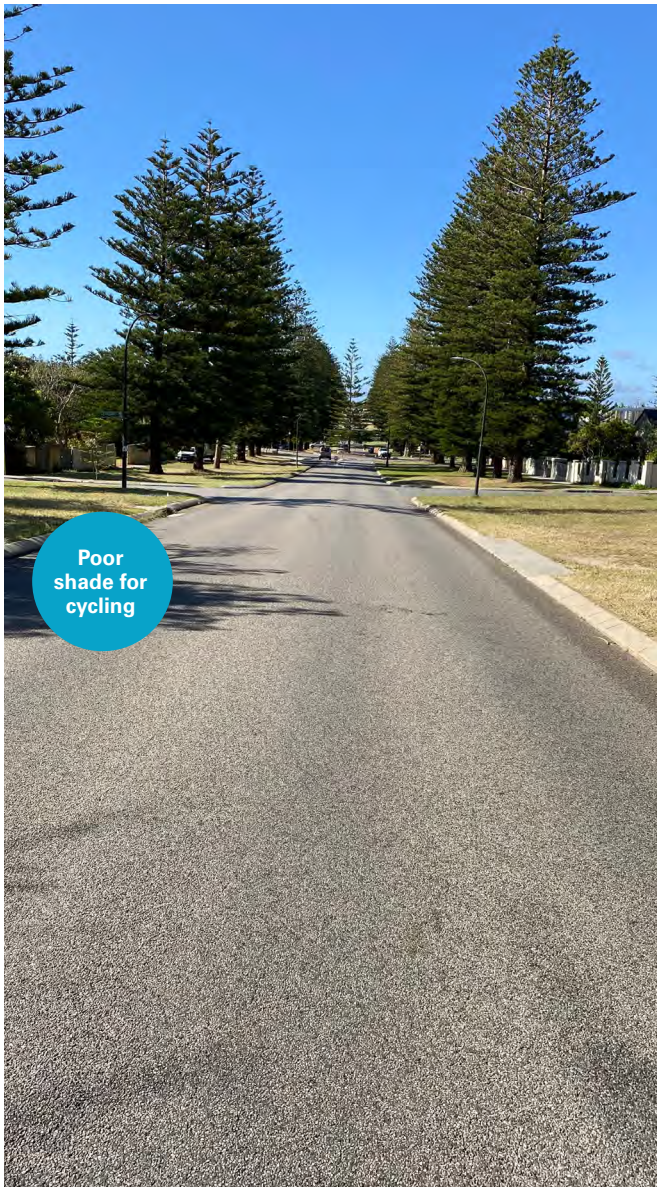
Only cycle parking available outside of Daisies Café

No seating or shade for people waiting for the bus

Cycling on the road not safe for the majority of people who would like to cycle

Roundabouts create slip lanes in a residential setting, whereby motorists are not required to give way to people walking

At some points major defects have more than 15mm level difference, creating a potential trip hazard and difficulty navigating in a wheel chair or pushing a pram



North Folk Island Pines do not provide continious shade cover for cycling on road

Large Norfolk Island Pine Trees do not always shade the footpath and do not create a continious canopy cover for people walking

Very skinny footpath (1.2m). Does not allow for two people to comfortably pass each other or walk side by side

Workshop Outcomes

Suggestions and Ideas to Explore Further

Healthy Streets Workshop

Participating Organisations:

- Main Roads Western Australia
- Town of Cottesloe (Administration)
- Phil Jones Associates
- Taylor Burrell Barnett
- Healthy Streets Ltd

On 15 November 2022, Main Roads WA organised a workshop with the Town of Cottesloe technical staff to present preliminary findings from the Healthy Streets Check and to work towards ideas to address the critical safety aspects identified on Broome Street and Marmion Street.

The Healthy Streets Checks identified that the key issues along both of these streets are:

- Traffic Speed – above 50km/h
- Turning Speed at intersections
- Midblock crossings
- Priority of crossings (side streets and midblock)
- Separation between people walking and traffic
- Space for walking
- Space for cycling
- Shade for walking
- Shade for cycling
- Availability of public drinking water
- Availability of public seating
- Availability of cycle parking
- Lighting
- No measures to reduce through traffic

The workshop groups looked at both streets and considered what measure would be appropriate in this context and would serve to deliver improvements in Healthy Streets Indicators.

A record of the workshop discussion is organised in key themes.

Lucy Saunders Presenting at the Technical Workshop at the Town of Cottesloe War Memorial Town Hall

Reducing excessive vehicle speeds

A primary focus of the workshop discussions was measures to support people to drive more carefully and considerately. Suggestions included more traditional 'traffic calming' measures:

- Narrow the road width and install a median to encourage safer driver behaviour. The median could be a painted chicane but this may not be very attractive, alternatively it could be a different colour to the road.
- Reduce the speed limit of the road to improve safety.
- Install variable 40km/h LED signs with times.
- Redesign the street environment to make it most comfortable to drive below the speed limit instead of relying on signage.
- Install mid-block slow points.
- Install mid-block crossing points.
- Install raised plateaus.

Improve the walking environment to make it more accessible

- Maintain and/or widen paths.
- Install solar lights on paths.
- Install rest points with water coolers and shade.
- Install a path on the western side of Broome Street between Napier St and Bryan Way as there is currently no footpath.
- Investigate raising the level of street pavement at intersections as an alternative to wombat crossings or raised pavements around zebra crossings, to create step free access and slow vehicles.
- Consider short-term improvements, including lower cost zebra crossings, and medium-long term improvements including raised intersections or alternatives to roundabouts.

Improve the safety at intersections, particularly for people walking

- At the roundabouts:
  - People walking to have priority (install zebra crossings).
  - Raise the level of the road to same level as paths.
  - Narrow the lane widths on approaches.
  - All approaches to have the same measure.
  - Install planting to minimise sight lines (Grant Street)
- At crossing points, consider priority of people walking.

Forrest Street and Broome Street Roundabout

Healthy Streets Idea

Roundabouts

KEY ISSUE

The Broome Street and Marmion Street roundabouts are designed to accommodate large vehicles at the expense of all other users. No priority is provided for people walking and people driving are not obligied to give way to people.

OPPORTUNITY

Roundabouts can be designed with crossing facilities or raised tables on the approach to ensure people have priority when crossing and it slows vehicles moving through the intersection. Raising the entire roundabout or tables where people cross also creates step free access which is much easier aged persons, people with disabilities or those pushing a pram to navigate with ease.

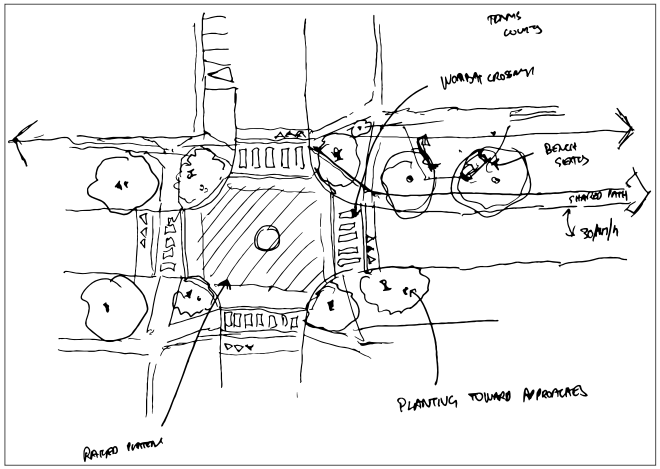
Suggestions and Ideas to Explore Further

Improve the cycling facilities to enable more people to cycle

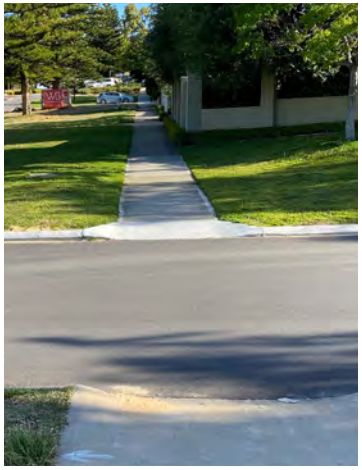
- Install a bidirectional cycle lane or a cycle lane in each direction.
- Consider gating the streets to reduce the number of external visitors and vehicles to the streets.
- If the bus route could be deviated to another road the road width can be narrowed between Grant St and Eric St enabling a consistent design along the full length of Broome Street.

Improve the appeal of the street for people walking and cycling

- Consider temporary closures of streets. Possibly fewer motorised vehicles, more people walking.
- Install flag poles.
- Install art work, e.g. street art, sculptures, etc.
  - Permanent installations.
  - Temporary / Pop Up.
- Install gardens within the centre island of roundabouts.
- Investigate materials for new paths as concrete not visually appealing.
- When considering improvements, take away from the road instead of the verge.



Workshop sketch: Testing an idea for raised table (corner of Broome and Napier), tightening up corners to slow vehicles, and creating priority for people walking



Existing: Typical side street intersection

Healthy Streets Idea

Continious Footpath

KEY ISSUE

While footpaths approaching side streets along Broome Street and Marmion Street are on the walking desire line, there is no priority for people walking.

OPPORTUNITY

Consdier a trial of continuous footpath treatments, which are essentially a raised table along the footpath that makes it easier for people crossing and results in a high liklihood that people driving will give way.

The existing side streets deal with very low traffic volumes and have clear sightlines given the wide verges. These side streets would be an ideal opportunity to demonstrate the benefits of continious footpaths in a residential setting.

Community and Stakeholder Engagement

- Early engagement with the community to bring them on the journey is a must.
  - Ask why they don't walk the street?
  - Understand why the street is not walkable when the street looks beautiful.
  - What are the basic needs for the residents?
  - How do the residents want the street to feel?
  - What does the community / residents want?
  - Improve the quality of life on the street.
  - Include elected Council members.
  - Form street user groups.
- Before going out with changes, meet with the groups that need the change:
  - Schools.
  - People who don't have cars.
  - Learning impaired.
  - Have their needs been met.
- Our duty as technicians and professionals:
  - The street assessments have identified critical aspects of safety for people walking and cycling that must be addressed as part of any design response (ie. '0' scores).
- Engagement on draft designs or solutions should demonstrate how interventions will improve safety and increase connectivity.
- Data should be collected to demonstrate the success of any street improvements.

Existing Situation on Broome Street

Healthy Streets Idea

Slow Points

KEY ISSUE

Both streets experience excessive speeding, contributing to an unsafe walking and cycling environment and making it difficult for people to cross and get to where they want to go.

OPPORTUNITY

Create slow points using horizontal and/or vertical deflections. Consider reducing sight lines at the mid-block location to remove the ability to speed, using vegetation.

Cottesloe's wide road verges create additional opportunities for large horizontal deflections, and could also create large consolidated spaces for informal resting and play spaces.

Recommendations

Next Steps

The Healthy Streets Approach focuses on how best the 10 Healthy Streets Indicators can be improved in the round.

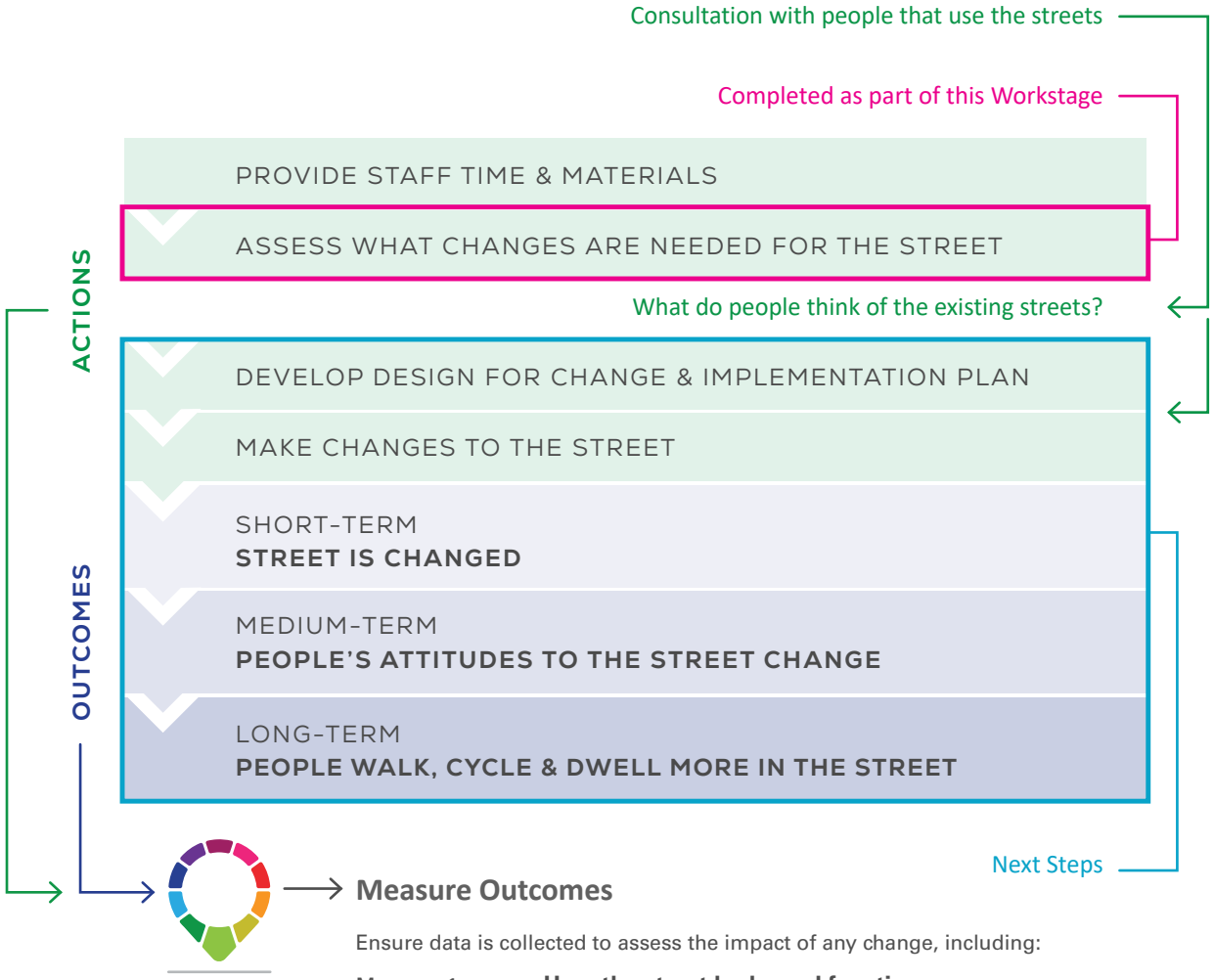
Many of the suggestions made at the workshop can be combined to deliver multiple benefits. For example, narrowing and raises to the approaches of roundabouts, installing planting at the footpath edges and a zebra crossing on raised 'tables' will help people driving to approach the intersection at a safe speed and easily see people who are crossing at the intersection; it will make the walking environment more welcoming and accessible and reduce the effort of walking; it will help to make the intersection safer for those who are cycling because the narrower lanes and raised surface will mean people are driving cautiously through the intersection giving the task their full attention. For local residents this will be a more visually attractive intersection, the noise and stress caused by speeding vehicles will be reduced and they will feel more able to walk or cycle for short local trips (refer following page for built examples).

The next step for this project is to speak with the people who live, work, visit, walk, cycle and drive on these streets to hear what they feel will make the streets better, in the round, for everyone. Such engagement will form part of Main Roads WA low cost urban road safety program consultation.

Concept designs, including funding investigations, staging and priority considerations, should be prepared following consultation with the local community.

The Healthy Streets Evaluation Framwork document has been formulated to guide project methodology for street design projects. Importantly, the Framework recommends that **10%** of the project budget is put aside for evaluation (measuring the success of outcomes).

In order to deliver good outcomes for the local community, it is recommended that a Healthy Streets Assessment is conducted to review the performance of changes proposed at both the concept planning and detailed design phase. The Design Checks can be a useful tool to test the effectiveness of a few different options that might be proposed at the concept planning stage, to ensure decision makers understand the pros and cons of certain interventions.



Source: Healthy Streets Ltd, Healthy Streets Evaluation Framework

Healthy Streets Evaluation Framework

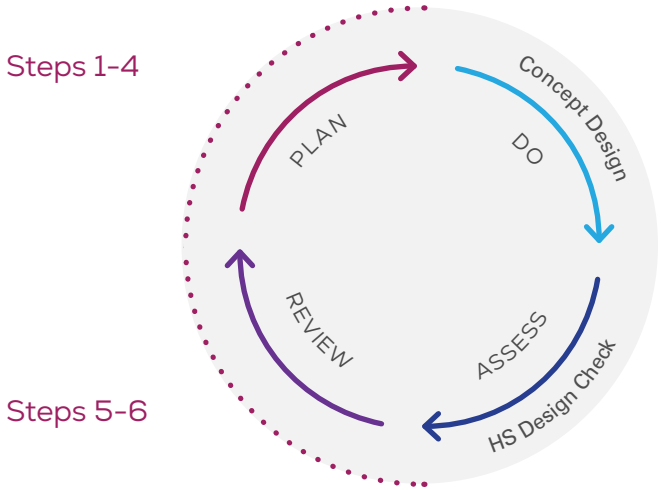
Click here for the full document

Key Recommendation:

Ensure Healthy Streets Assessments inform the concept design options analysis, and detailed design phase to ensure interventions will make an improvement to the measured existing situation, and include a Healthy Streets Assessment to report on the success of the built street improvements.

Project Cycle

Ideally you will start your evaluation work at the earliest stage of your project when you are deciding what to do, where and why. In the 'Project Cycle' Steps 1–4 should be completed in the 'Plan' stage and steps 5 and 6 in the 'Review' stage.



Six steps of an evaluation

This is a standard evaluation framework to apply to street projects.

Step 1

Clarify your objectives and 'theory of change' for the project

Step 2

Build evaluation into project planning from the start

Step 3

Choose your measurement tools

Step 4

Design how you will use the measures to suit the project you are evaluating

Step 5

Use the evaluation to improve project delivery

Step 6

Report your findings

Source: Healthy Streets Ltd, Healthy Streets Evaluation Framework

not part of study area

A

APPENDIX

Healthy Streets Design Checks (in full)

Healthy Streets Score

Name of street

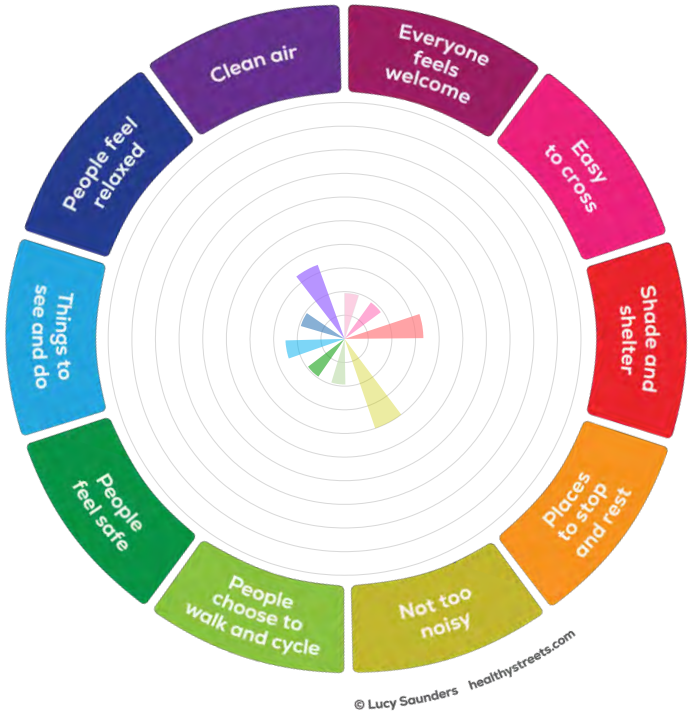
Broome Street

Name of street at start intersection

Napier Street

Name of street at end intersection

Eric Street



	Existing Layout Score	Proposed Layout Score
Healthy Streets Score	23	
Everyone feels welcome	19	
Easy to cross	19	
Shade and shelter	33	
Places to stop and rest	0	
Not too noisy	40	
People choose to walk and cycle	19	
People feel safe	19	
Things to see and do	25	
People feel relaxed	19	
Clean air	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	**Default 50km/h Speed limit and no LATM to slow traffic**		
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	**a 15min spot count between 5 - 5.15pm noted 75 vehciles, multiplied by 4 for peak hour is 300**		
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	**A few large vehicles were noted during assessment, est. to be below 3% (awaiting data from Town)**		
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 measures in place to reduce number or speed of turning vehicles and no space allocated for cycles (necessary given operating speed)**		
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	**side street intersection of Hawkstone St and Torrens St has pram ramps and are on desire line. Kerb radii measured at a mix of 3m, 6m, 7.5m, with the largest being 9m to north-west of Hawkestone, allows cars to go fast around corners**		
6	**Ease of crossing mid block**	See table	See table	See table	See table	info	0	**330m between Grant and Eric with no crossing**		
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	**crossing at the intersection Hawkstone St, has no pedestrian refuges to cross the street. No crossing at Torrens St at all**		

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**	**pavement is in reasonable condition, some minor cracks near Grant St roundabout, western side. Trip hazard noted approx 14mm on eastern side approaching Grant**		
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**	**footpath is 1.5m wide People walking less than 70 in the peak hour (on-site count confirms).**		

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**	**the speed limit is 50km/h and buffer is greater than 10m**		
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 present, people on bikes travel on road mixed with traffic**		
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	**0**	**lighting design for motor vehicles but planting obscures it to the footpath, plus large verges mean it is further away from residual road light**		
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**	**water bubbler present on Marine Parade over 350m walk (not on this street)**		
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**	**public seating could not be found within 400m of the route**		
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**	**cycle parking could not be found within 400m of the route**		
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**	**330m long street x 2 sides, less 18m for each side street = 642m. Estimate of 65% canopy cover using MetroMap Aerial Photo measurements. Seems shaded at different times of the day, seems to always have part of one side that is not in shade**		
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	**2**	**trees shade nearside traffic lane at 60% cover (as above), seems to always have part of one side that is not in shade**		
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	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 is permitted and speed limit is 50km/h**		

					Are there any bus services running on this street? Yes/No		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**	**bus stop has no seating or protection**	

Healthy Streets Score

Name of street

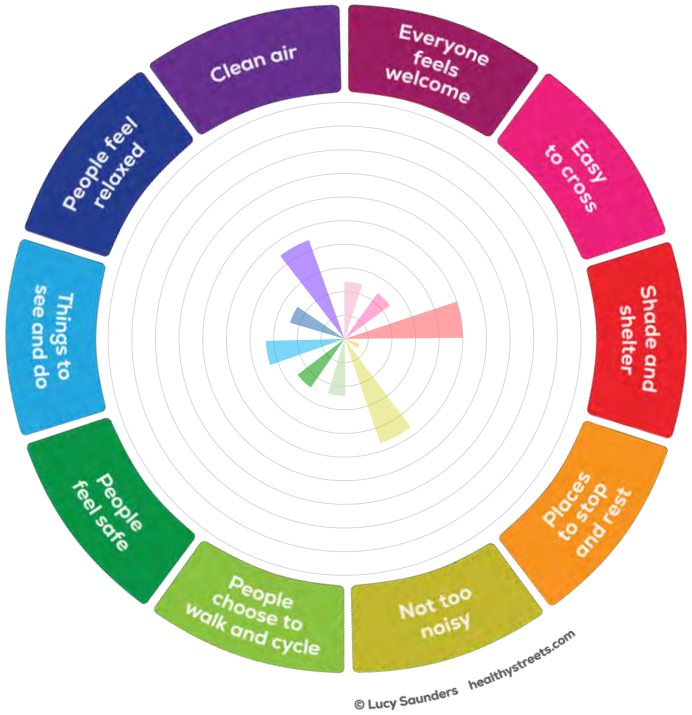
Broome Street

Name of street at start intersection

Forrest Street

Name of street at end intersection

Napier Street



	Existing Layout Score	Proposed Layout Score
Healthy Streets Score	30	
Everyone feels welcome	24	
Easy to cross	24	
Shade and shelter	50	
Places to stop and rest	7	
Not too noisy	47	
People choose to walk and cycle	24	
People feel safe	25	
Things to see and do	33	
People feel relaxed	24	
Clean air	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	**Default 50km/h Speed limit and no LATM to slow traffic**		
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	**a 15min spot count between 5 - 5.15pm noted 75 vehciles, multiplied by 4 for peak hour is 300**		
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	**A few large vehicles were noted during assessment, est. to be below 3% (awaiting data from Town)**		
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 measures in place to reduce number or speed of turning vehicles and no space allocated for cycles (necessary given operating speed)**		
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	**side street intersection of Geraldine St and Clarendon St has pram ramps and are on desire line. Kerb radii measured at 7.5m, allows cars to go fast around corners**		
6	**Ease of crossing mid block**	See table	See table	See table	See table	info	0	**90m between street intersections. However, there is no crossing at all where Loma meets Broome (expect a sightline issue at top of the hill). Meaning 190m to cross with no pedestrian refuge**		

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**	**crossing at the intersections of John St or Loma St, has no pedestrian refuges to cross the street. No crosing at Loma at all**	
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**	**pavement mostly in good condition with exception of expansion joints closer to Forrest on western side starting to rise, gap no larger than 14mm**	
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**	**footpath is 1.2m wide. Some areas also come down below 0.8m effective width due to overgrown vegetation from some properties**	

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**	**the speed limit is 50km/h and buffer is greater than 10m**		
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 present, people on bikes travel on road mixed with traffic**		
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	**0**	**lighting design for motor vehicles but planting obscures it to the footpath, plus large verges mean it is further away from residual road light**		
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	**1**	**water bubbler present on Marine Parade over 350m walk (not on this street)**		
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**	**The only place to stop and rest is at the Civic Centre Playground, but there is not another seat for more than 400m**		
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**	**cycle parking could not be found within 400m of the route**		
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**	**measure 330m street x 2, less 7 side streets at 6m wide = 288m. Using MetroMap Aerial photo measure 150m of shaded path, meaning 52%**		
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	**2**	**measure 170m shade using MetroMap Aerial, over 330m, meaning 52%**		
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 is permitted and speed limit is 50km/h**		
					Are there any bus services running on this street? Yes/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

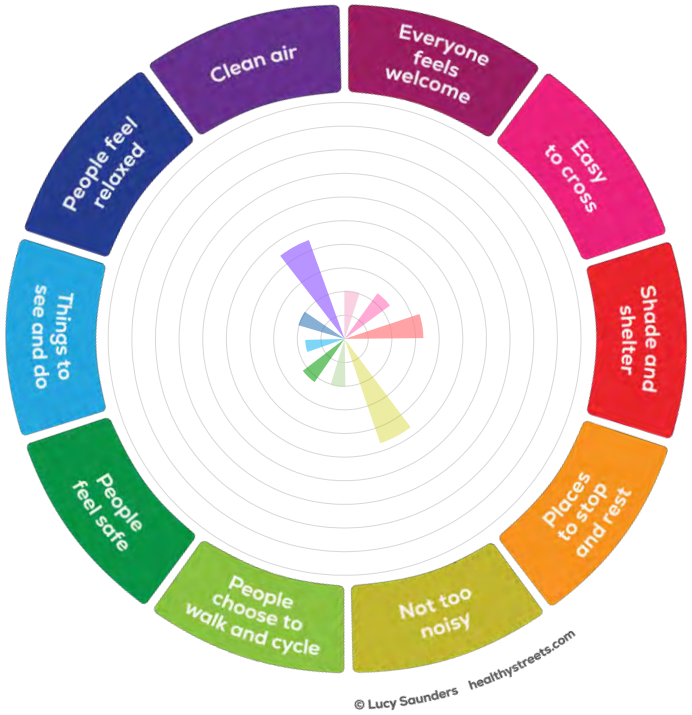
Broome Street

Name of street at start intersection

Napier Street

Name of street at end intersection

Eric Street



	Existing Layout Score	Proposed Layout Score
Healthy Streets Score	25	
Everyone feels welcome	20	
Easy to cross	24	
Shade and shelter	33	
Places to stop and rest	0	
Not too noisy	47	
People choose to walk and cycle	20	
People feel safe	22	
Things to see and do	17	
People feel relaxed	20	
Clean air	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	**Default Speed limit and no LATM to slow traffic**		
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	**a 15min spot count between 5 - 5.15pm noted 75vehciles, multiplied by 4 for peak hour is 300**		
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	**A few large vehicles were noted during assessment, est. to be below 3% (awaiting data from Town)**		
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 measures in place to reduce number or speed of turning vehicles and no space allocated for cycles (necessary given operating speed)**		
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	**side street intersection of Geraldine St and Clarendon St has pram ramps and are on desire line. Kerb radii measured at 7.5m, allows cars to go fast around corners**		
6	**Ease of crossing mid block**	See table	See table	See table	See table	info	0	**340m between Eric and Napier with no safe crossing points**		
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	**crossing at the intersection Clarendon St, has no pedestrian refuges to cross the street or pram ramps - crossing non-existent**		
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	**trip hazard noted approx 14mm on east side closest to Eric St**		

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**	**footpath is 1.2m wide, with footpath missing for entire length outside of Tennis Courts (165m), observed school children accessing buses across the grass. Some areas also come down below 0.8m effective width due to overgrown vegetation from some properties (counted 26ppl in 15mins from 505pm to 520pm, 104ppl/hr)**		

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**	**the speed limit is 50km/h and buffer is greater than 10m**		
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 present, people on bikes travel on road mixed with traffic**		
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	**0**	**lighting design for motor vehicles but planting obscures it to the footpath, plus large verges mean it is further away from residual road light**		
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**	**water bubbler present on Marine Parade over 350m walk (not on this street)**		
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**	**public seating can be found at Cottesloe Civic Centre Playground (south of this segment but on the same street), but as nothing else it is greater than 400m between seats**		
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**	**cycle parking could not be found within 400m of the route**		
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**	**50% of walking space shaded at different times of the day, seems to always have one side that is not in shade. Large section of shade missing outside tennis courts, but trees are much younger**		
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	**1**	**140m of the 340m stretch is shaded = 40%**		
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	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 is permitted and speed limit is 50km/h**		

					Are there any bus services running on this street? Yes/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

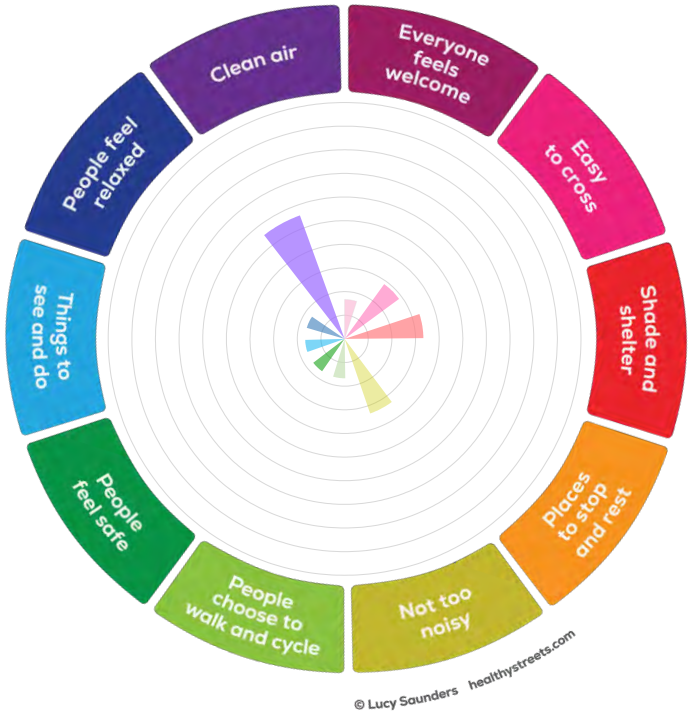
Marmion St

Name of street at start intersection

Eric Street

Name of street at end intersection

Napier Street



	Existing Layout Score	Proposed Layout Score
Healthy Streets Score	23	
Everyone feels welcome	17	
Easy to cross	29	
Shade and shelter	33	
Places to stop and rest	0	
Not too noisy	33	
People choose to walk and cycle	17	
People feel safe	17	
Things to see and do	17	
People feel relaxed	17	
Clean air	56	

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	**Default 50km/h Speed limit and no LATM to slow traffic**		
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	3	**a 15min spot count between 445 - 5.00pm noted 40 vehicles, multiplied by 4 for peak hour is 160 (Town to send data)**		
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	**A few large vehicles were noted during assessment, est. to be below 3% (awaiting data from Town)**		
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 measures in place to reduce number or speed of turning vehicles and no space allocated for cycles (necessary given operating speed)**		
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	**side street intersections have pram ramps and are on desire line. Kerb radii mostly 6m, but 9m at Clarendon, allows cars to go fast around corners**		
6	**Ease of crossing mid block**	See table	See table	See table	See table	info	0	**no safe place to cross for 360m**		
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 crossings where Clarendon and Athelstan intersect with Marmion**		
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	**Footpath in reasonable condition, some minor lifting between expansion joints near Napier St on west side, nothing more than 14mm**		

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**	**footpath is 1.2m wide. Some areas also come down below 1.0m effective width due to overgrown vegetation from some properties (assume less than 70ppl per hour)**		

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**	**the footpath disapears and guides people to walk in the road along Hairing Avenue, which is a 50km/h default with no LATM**		
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 present, people on bikes travel on road mixed with traffic**		
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	**0**	**lighting design for motor vehicles but planting obscures it to the footpath, plus large verges mean it is further away from residual road light**		
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**	**water bubbler present on Marine Parade over 700m walk (not on this street)**		
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 public seating for entire stretch of road**		
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**	**cycle parking could not be found within 400m of the route**		
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**	**Measured just below 50% shade for both sides of street using MetroMap Aerial photos. Western side is the most sparse**		
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	**1**	**140m of the 360m stretch is shaded = 38%**		
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	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 is permitted and speed limit is 50km/h**		
					Are there any bus services running on this street? Yes/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

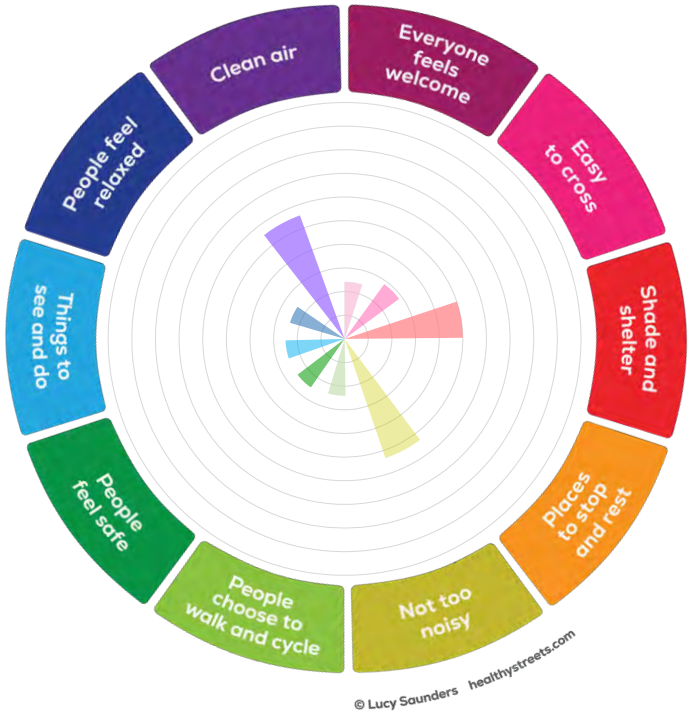
Marmion St

Name of street at start intersection

Grant Street

Name of street at end intersection

Eric Street



	Existing Layout Score	Proposed Layout Score
Healthy Streets Score	31	
Everyone feels welcome	24	
Easy to cross	29	
Shade and shelter	50	
Places to stop and rest	0	
Not too noisy	53	
People choose to walk and cycle	24	
People feel safe	25	
Things to see and do	25	
People feel relaxed	24	
Clean air	56	

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	**Default 50km/h Speed limit and no LATM to slow traffic**		
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	3	**a 15min spot count between 445 - 5.00pm noted 40 vehicles, multiplied by 4 for peak hour is 160 (Town to send data)**		
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	**A few large vehicles were noted during assessment, est. to be below 3% (awaiting data from Town)**		
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 measures in place to reduce number or speed of turning vehicles and no space allocated for cycles (necessary given operating speed)**		
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	**side street intersections have pram ramps and are on desire line. Kerb radii measured at 9m at Hawkestone, allows cars to go fast around corners**		
6	**Ease of crossing mid block**	See table	See table	See table	See table	info	0	**Would score 3 by default as 95m to each intersection, but Florence is missing a crossing and therefore no safe refuge crossing for 200m**		
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	**Hawstone has refuges. Floreence has no pram ramps - crossing non-existent**		

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**	**Footpath in reasonable condition, some minor cracks near Eric St on west side, nothing more than 14mm**		
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**	**footpath is 1.2m wide. Some areas also come down below 0.8m effective width due to overgrown vegetation from some properties (assume less than 70ppl per hour)**		

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**	**the speed limit is 50km/h and buffer is greater than 10m**		
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 present, people on bikes travel on road mixed with traffic**		
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	**0**	**lighting design for motor vehicles but planting obscures it to the footpath, plus large verges mean it is further away from residual road light**		
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**	**water bubbler present on Marine Parade over 700m walk (not on this street)**		
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 public seating for entire stretch of road**		
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**	**cycle parking available near Deli on west side corner of Marmion and Grant, but then nothing for the rest of the stretch of the street**		
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**	**Measured just below 50% shade for both sides of street using MetroMap Aerial photos. Noting a gap on eastern side approaching Eric St**		
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	**2**	**165m of the 325m stretch is shaded = 52%**		
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	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 is permitted and speed limit is 50km/h**		
					Are there any bus services running on this street? Yes/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

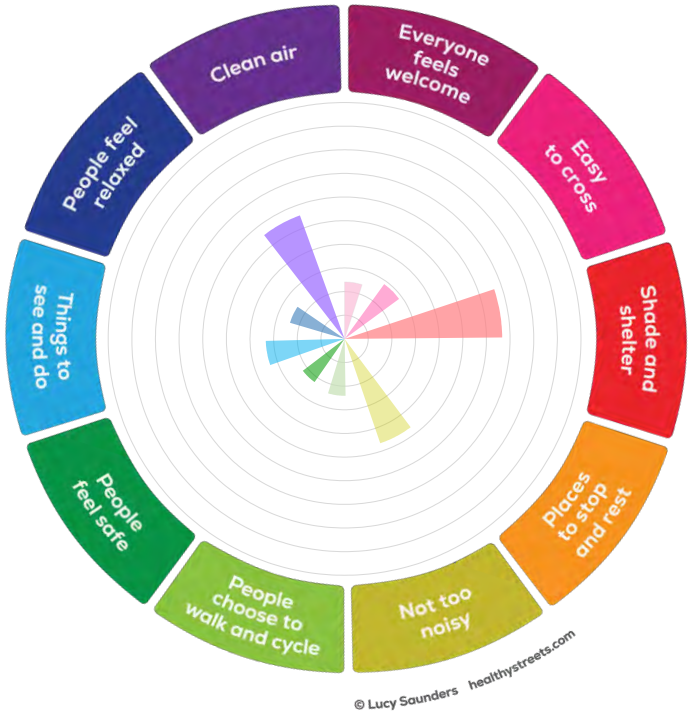
Marmion St

Name of street at start intersection

Napier Street

Name of street at end intersection

Forrest Street



	Existing Layout Score	Proposed Layout Score
Healthy Streets Score	33	
Everyone feels welcome	24	
Easy to cross	29	
Shade and shelter	67	
Places to stop and rest	0	
Not too noisy	47	
People choose to walk and cycle	24	
People feel safe	22	
Things to see and do	33	
People feel relaxed	24	
Clean air	56	

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**	**Default 50km/h Speed limit and no LATM to slow traffic**		
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	**3**	**a 15min spot count between 445 - 5.00pm noted 40 vehicles, multiplied by 4 for peak hour is 160 (Town to send data)**		
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**	**A few large vehicles were noted during assessment, est. to be below 3% (awaiting data from Town)**		
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 measures in place to reduce number or speed of turning vehicles and no space allocated for cycles (necessary given operating speed)**		
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**	**side street intersections have pram ramps and are on desire line. Kerb radii 9m for both side streets, allows cars to go fast around corners**		
6	**Ease of crossing mid block**	See table	See table	See table	See table	info	**0**	**no safe place to cross for 330m**		
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 crossings where Loma and John Streets intersect with Marmion**		
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**	**Footpath in reasonable condition, some minor lifting between expansion joints approaching Curtin Ave on east side, nothing more than 14mm**		

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**	**footpath is 1.2m wide. Some areas also come down below 1.0m effective width due to overgrown vegetation from some properties (assume less than 70ppl per hour)**		

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	**2**	**the speed limit is 50km/h and buffer is greater than 10m. In the south, comes down to 3m on west toward Forrest. Footpath on east runs along Curtin Ave with a 2m buffer to kerb (needs 2.15m above 50km/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**	**no cycle infrastructure present, people on bikes travel on road mixed with traffic**		
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	**0**	**lighting design for motor vehicles but planting obscures it to the footpath, plus large verges mean it is further away from residual road light**		
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**	**water bubbler present on Marine Parade over 700m walk (not on this street)**		
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 public seating for entire stretch of road**		
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**	**cycle parking could not be found within 400m of the route (there is some located to the east for the Cottesloe Train Station, but not on the this street)**		
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	**2**	**Measured approx. 55% shade for both sides of street using MetroMap Aerial photos. Western side is the most sparse**		
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	**2**	**180m of the 330m stretch is shaded = 55%**		
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	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 is permitted and speed limit is 50km/h**		

					Are there any bus services running on this street? Yes/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			

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