



**Identification of High Risk Metropolitan Intersection Sites in
Perth Metropolitan Area**

C-MARC

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Abstract

As convergence points for drivers and other road users, intersections have higher crash risk than other parts of the road network. Given the limited resources available, it is important to identify high risk intersections so that they can be prioritised for infrastructure improvement. This report aimed to use a three-stage approach to identify high risk intersections: using Road Trauma Risk Analysis, then Comparative Safety Performance Analysis and finally ranking the intersections by the KSI (killed and seriously injured) metric. The results identify the high risk intersections for each intersection type (by speed environment and control type). The report recommends extensions to this process to improve identification of high risk intersections, and the use of a taxonomy to identify candidate treatments.

Keywords

Metropolitan intersection crashes, KSI crashes, risk factors

Disclaimer

This report is disseminated in the interest of information exchange. The views expressed here are those of the authors and not necessarily those of Curtin University or Monash University.

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EXECUTIVE SUMMARY

Introduction

In 2009, the Government of Western Australia adopted the *Towards Zero* strategy (Office of Road Safety, 2009) which is based on the *Safe Systems* approach to road safety (Corben, Logan, Fanciulli, Farley, & Cameron, 2010; Langford, 2009). As part of the strategy, the *WA Safe System Matrix* was created to set identify road safety initiatives in line with the *Safe Systems* paradigm. In metropolitan Perth, one of these initiatives was the “Safe System intersection transformation” (Langford, 2009). This initiative addresses the higher crash risk at metropolitan intersections, which represent convergence points for all road users.

This second report in the Metropolitan Intersection Safety project builds on the first report “*Risk Factors for Killed and Seriously Injury Intersection Crashes in Metropolitan Perth: 2005-2015*”(Chow, Manners, & Meuleners, 2016), which identified risk factors for killed and seriously injured crashes at intersections.

The second phase of the study aimed to use a three-stage approach including the use of the Road Trauma Risk Analysis and the Comparative Safety Performance Analysis, which were developed by Main Roads Western Australia, to prioritise intersections which have a high crash risk for infrastructure improvements.

The specific objectives of the project were to:

1. Perform a Road Trauma Risk Analysis on intersections where at least one casualty crash occurred in the Perth metropolitan area between 2011 and 2015.
2. Identify high crash risk intersections, by speed and control type, in the Perth metropolitan area between 2011 and 2015, based on the results of the Road Trauma Risk Analysis.
3. Perform a Comparative Safety Performance Analysis on the identified high crash risk intersections to compare the relative safety performance of intersections of the same type.
4. Illustrate the geographic location of the identified intersections in built-up speed environments using the Geographic Information Systems methodology.
5. Using the KSI metric, rank the intersections, which were identified using the Road Trauma Risk Analysis and the Comparative Safety Performance Analysis, in order of risk.

Method

A retrospective population-based study was undertaken using crash data from the Integrated Road Information System from 2011 to 2015 on intersections which reported at least one casualty crash in the Perth metropolitan area. Traffic volume data was obtained from Main Roads Western Australia.

Selected intersections were grouped by:

- *Speed environment*: built-up, open or low-speed; and
- *Traffic control type*: traffic signal, roundabout or no traffic signal

This created nine possible intersection types:

1. Built-up speed environment with traffic signals
2. Built-up speed environment with roundabout
3. Built-up speed environment with no traffic signals
4. Open speed environment with traffic signals
5. Open speed environment with roundabout
6. Open speed environment with no traffic signals
7. Low-speed environment with traffic signals
8. Low-speed environment with roundabout
9. Low-speed environment with no traffic signals

Statistical analysis

Each intersection type was then assessed using the *Road Trauma Risk Analysis*. This methodology compared crash density or collective risk (a count of killed and seriously injured crashes plus factored-up medical crashes, i.e., the KSI metric) to crash rate or personal risk (KSI metric divided by product of flow, a measure of exposure to traffic at intersections) for each intersection. Based on this, each intersection was allocated to one of four quadrants (black, red, orange and green). Intersections which were identified to be in the black quadrant reported both high crash density and crash rate. Intersections in the red quadrant reported high crash density but lower crash rate. Intersections identified to be in the orange quadrant reported lower crash density but high crash rate, and in the green quadrant identified intersections reported both low crash density and low crash rate. Maps were also created which visually demonstrated both the location and quadrant of each intersection in the built-up speed environment.

The high risk intersections (those falling in black and, in some cases, red quadrants) were further analysed using the *Comparative Safety Performance Analysis*. This methodology compared each intersection to other intersections within the same speed environment by the KSI metric. Each intersection was assigned a percentile score and ranked into a category from I (most safe intersections) to V (least safe intersections). Maps were again created for intersections in the built-up speed environment plotting the location of each intersection by CSP category.

Following this, the identified high risk intersections were ranked by the KSI metric. Intersections with any structural changes since 2011 were noted, using aerial photography.

Results

- *Built-up speed environment with traffic signals*: 310 out of 996 (31%) intersections were in this category. A total of 52 (17%) intersections were in the black quadrant and were categorised as high risk intersections, and 19 (6.1%) of the intersections were in both the black quadrant and CSP V. The top ranked intersection had a KSI metric of nearly 17.
- *Built-up speed environment with roundabout*: None of the 23 (2.3%) casualty intersections of this type were in the black quadrant. A total of 3 (13%) intersections were in the red quadrant of which one each were in CSP categories III, IV and V. The top ranked intersection had a lower KSI metric of 2.2.
- *Built-up speed environment with no traffic signals*: The 425 (43%) intersections in this category included 16 (3.8%) in the black quadrant, which were divided between CSP categories IV (8, 1.9%) and V (8, 1.9%). The top ranked intersection had a KSI metric of 7.1.
- *Open speed environment with traffic signals*: Sixty-three (6.3%) intersections were in this category of which 25 (40%) were in the black quadrant; 4 (6.4%) were in CSP category IV with the remainder in category V. The top ranked intersection had a KSI metric of 13.
- *Open speed environment with roundabout*: Of the 19 (1.9%) intersections in this type, all high risk intersections were in the red quadrant (4, 21%) and in either CSP category IV or V. The top ranked intersection had a KSI metric of 2.6.
- *Open speed environment with no traffic signals*: A total of 135 (14%) of all casualty intersections were of this type. Of the 18 (13%) intersections in the black quadrant, 12 (8.9%) fell in CSP category IV, with the rest in CSP category III (4, 3.0%) and II (2, 0.02%). The top ranked intersection had a KSI metric of 15.

- *Low-speed environment with traffic signals*: Of the 9 (0.90%) intersections of this type, 2 (22%) were in the black quadrant and 5 (56%) were in the red quadrant. These high risk intersections were across a range of CSP categories (from I to IV). The top ranked intersection had a KSI metric of 7.
- *Low-speed environment with roundabout*: No casualty intersections were of this intersection type.
- *Low-speed environment with no traffic signals*: Of the 12 (1.2%) of casualty intersections in this group, one intersection was classified as high risk and fell in red quadrant in CSP category IV. The intersection had a KSI metric of 2.

Discussion and Recommendations

Most intersections which reported at least one casualty crash in the Perth metropolitan area fell into three intersection types: i) intersections in the built-up speed environment, with traffic signals, ii) intersections in the built-up speed environment without traffic signals, and iii) intersections in the open speed environment without traffic signals. The majority of intersections falling into the black quadrant were in the built-up speed environment and had traffic signals. The top-ranked intersection in this category also had the highest KSI metric across all intersection types. Intersections with roundabouts in all speed environments had the lowest number of casualty intersections and lowest KSI metrics of all intersection types.

Recommendations include:

- Performing the analyses by crash type, as well as by speed environment and traffic control.
- Using GIS to supplement these methods (simple mapping, as well as clustering of high risk intersections across the metro area).
- Use of Devlin and colleagues' (Devlin, Candappa, Corben, & Logan, 2011) taxonomy to allocate treatments to high risk intersections.

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1. INTRODUCTION

In 2009, the Government of Western Australia adopted the *Towards Zero* strategy (Office of Road Safety, 2009), based on the *Safe Systems* approach to road safety, combining aspects of Sweden's Vision Zero and the Netherlands' Sustainable Safety approaches (Corben et al., 2010; Langford, 2009). The four cornerstones of the Western Australian Safe Systems approach are i) *Safe roads and roadsides*, ii) *Safe speeds*, iii) *Safe vehicles* and iv) *Safe road use* (Langford, 2009).

As part of the strategy, the *WA Safe System Matrix* was created to identify road safety initiatives in line with the *Safe Systems* paradigm, targeting the three major geographic regions of Western Australia (WA): metropolitan Perth, regional WA and remote WA (Corben et al., 2010). In metropolitan Perth, the program associated with *Safe roads and roadsides* in the *Safe System Matrix* is "Safe System intersection transformation" (Langford, 2009) which would involve the use of measures such as roundabouts, control of right-turns at signals and combination red light/speed cameras to improve the safety of intersections (Corben et al., 2010). A survey using a representative sample of the West Australian population demonstrated that 95% of respondents supported or strongly supported improving intersections (Corben et al., 2010).

Intersections represent convergence points for all road users (motorised vehicles, as well as vulnerable road users such as pedestrians and cyclists). Because road users' paths cross the road network at intersections, the risk of a crash is higher, despite road users spending a relatively short time travelling through them (Chen, Cao, & Logan, 2012; NZTA, 2013). There are several reasons for this higher crash risk at intersections: i) vehicles and pedestrians travel on conflicting paths; ii) road users are required to make successful gap judgements; iii) intersections are located at points of traffic congestion and can cause congestion (Chen et al., 2012).

Safety improvement measured at high-risk intersections need to focus on reducing the number of killed and seriously injured crashes, concentrating on high risk movement types at intersections. Busy environments in urban areas place high demands on road users, particularly vulnerable road users such as pedestrians and cyclists (NZTA, 2013). In Perth metropolitan area, nearly 21% of serious injury crashes between 2005 and 2009 occurred at intersections, while only 10% and 5% of serious injury crashes involved

intersections in regional and remote Western Australia respectively (Palamara, Kaura, & Fraser, 2013).

This report forms part of the Metropolitan Intersection Safety project. The first report, “*Risk Factors for Killed and Serious Injury Intersection Crashes in Metropolitan Perth: 2006–2015*”(Chow et al., 2016) identified risk factors for killed and serious injury (KSI) intersection crashes (compared to crashes involving merely medical treatment or property damage) in the Perth metropolitan area between 2006 and 2015. Risk factors identified with significant increased risk of a KSI intersection crash were i) temporal factors (crashes occurring at weekends and at night-time), ii) occurrence at non-level intersections, and iii) three-way, or four or more-way intersections (compared to roundabouts). The report suggested the increased use of traffic lights and roundabouts, while recommending that the safety benefits of non-signalised intersections (compared to intersections with no traffic controls) be investigated further.

This report describes the results of the second stage of the Perth Metropolitan Intersection Safety project. A three-stage approach to identify and rank high risk intersections in the Perth metropolitan area was undertaken. An assessment of intersection risk was undertaken using methodologies developed by Main Roads Western Australia: the Road Trauma Risk Analysis and the Comparative Safety Performance Analysis, which was followed by a ranking of the identified high risk intersections using a KSI metric. By using three different methods to identify high risk intersections, risk to both individuals entering intersections and collective risk to all vehicles entering intersections could be used to rank the intersections with the poorest safety records. The results of this study will inform authorities which casualty crash intersections require the most urgent attention. This will aid road safety authorities to make informed decisions about the management and investment of road safety resources.

1.1 Aims and objectives

The aim of the project was to assist in prioritising candidate intersections for road safety improvements, using the existing Road Trauma Risk Analysis and Comparative Safety Performance Analysis methodologies of Main Roads Western Australia.

The specific objectives of this phase of the project were to:

1. Perform a Road Trauma Risk Analysis on intersections where at least one casualty crash occurred in the Perth metropolitan area between 2011 and 2015.
2. Identify high risk crash intersections, by speed and control type, in the Perth metropolitan area between 2011 and 2015, based on the results of the Road Trauma Risk Analysis.
3. Perform a Comparative Safety Performance Analysis on the identified high risk intersections to compare the relative safety performance of intersections of the same type.
4. Illustrate the geographic location of the identified intersections in built-up speed environments using the Geographic Information Systems methodology.
5. Using the KSI metric, rank the intersections, which were identified using the Road Trauma Risk Analysis and the Comparative Safety Performance Analysis, in order of risk.

1.2 Significance

The results of this report will provide Main Roads, WA and other responsible agencies with reliable and objective information for future investments in developing road safety strategies.

2. METHODS

2.1 Study design

A retrospective population-based study was undertaken using crash data from the Integrated Road Information System from 2011 to 2015 on intersections which reported at least one casualty crash in the Perth metropolitan area. Traffic volume data was obtained from Main Roads Western Australia.

2.2 Study environment

The study included all metropolitan intersections where at least one casualty crash occurred in the Perth area (Table 12, Appendix). The Main Roads region code 7 was used to identify intersections located in the metropolitan area of Western Australia.

2.3 Databases

2.3.1 Integrated Road Information System (IRIS)

The Integrated Road Information System (IRIS) is a large dataset reported crashes (Police and self-report) in Western Australia which is maintained by Main Roads Western Australia. This includes fatal, hospitalisation and medical treatment crashes that occurred at intersections in the metropolitan area of Perth, WA, during a five year period from 1 January 2011 to 31 December 2015.

2.3.2 Traffic volume data

Data on traffic volumes (annual average daily traffic - AADT) at intersections were obtained for use in the analysis. AADT is the annual average daily traffic experienced by each leg of an intersection, and is recorded and maintained by Main Roads Western Australia. If traffic data for 2015 was available, this was used for this project. If traffic data was only available from an earlier year, an annual growth rate of 2.18% was used to estimate the 2015 AADT. This is the most recent estimate of growth, using the Australian Bureau of Statistics estimates of Million Vehicle Kilometers Travelled - MVKT (ABS, 2015)

2.4 Operational definitions

The definition of a crash used throughout this report is the definition used in the annual publication *Reported Road Crashes in Western Australia 2014* (Road Safety Commission, 2016). That is, a crash is “*any unpremeditated incident where in the course of the use of any vehicle on a road that was not temporarily closed off to the public, a person is injured or property is damaged. The crash must involve vehicle movement and does not include collisions that occur due to a medical condition, deliberate acts (e.g. suicide attempts) or police chases*”.

The severity of a crash is derived from “*the most serious injury in a crash*”. A fatal crash is “*a road crash in which at least one person was killed immediately or died within 30 days of the crash, as a result of the crash*”. A hospitalisation crash is a road crash that involved at least one admission to hospital but “*no fatalities within 30 days of the crash*”. A crash requiring medical treatment is “*a road crash in which the most serious injury resulted in a person requiring medical treatment, but without being admitted to hospital*”. A property damage only crash (PDO) involved no or unknown injuries.

For the purpose of this report, a killed or seriously injured (KSI) crash was defined as a road crash that resulted in at least one person being either killed (“*killed immediately or died within 30 days of the day of the road crash as a result of the crash*”) or seriously injured (“*admitted to hospital as a result of the road crash and who does not die from injuries sustained in the crash within 30 days of the crash*”). KSI crashes include all fatal crashes, and hospitalisation crashes. Non-KSI crashes included all crashes requiring medical treatment and PDO crashes.

In WA, it is mandatory for the driver of a vehicle to report a traffic crash when the incident occurred on a road or any place commonly used by the public, e.g. car parks, and:

1. The incident resulted in bodily harm to any person; or
2. The total value of property damaged to all involved parties exceeds \$3000; or
3. The owner or representative of any damaged property is not present.

2.5 Criteria for ascertainment of an intersection crash

All metropolitan intersections with at least one casualty crash (fatal, hospitalisation, or crash requiring medical treatment) from 2011 to 2015 were investigated, resulting in a total of 996 intersections. These included state road/state road intersections and state road/local road intersections but excluded local road/local road intersections (Main Roads, 2016). The full list of intersections used in this report is contained in Table 12 in the Appendix.

Intersections were categorised based on:

1. Speed Environment (highest approach speed):
 - a. Built-up: all legs of the intersection were less than 80km/hour and at least one greater than 50km/hour
 - b. Open: at least one leg of the intersection was 80km/hour or more
 - c. Low-speed: all legs of the intersection were 50km/hour or less
2. Intersection Control:
 - a. Traffic Signals (i.e., has traffic control lights)
 - b. Roundabout
 - c. No traffic signals (i.e., has no traffic control lights)

This created nine possible intersection types:

1. Built-up speed environment with traffic signals
2. Built-up speed environment with roundabout
3. Built-up speed environment with no traffic signals
4. Open speed environment with traffic signals
5. Open speed environment with roundabout
6. Open speed environment with no traffic signals
7. Low-speed environment with traffic signals
8. Low-speed environment with roundabout
9. Low-speed environment with no traffic signals

2.6 Analysis of crashes

The safety of each of the nine types of intersections was first assessed using Road Trauma Risk Analysis (Section 2.6.1). High risk intersections were then identified and

assessed using the Comparative Safety Performance Analysis methodology (Section 2.6.2). Finally, high risk intersections were ranked by the KSI metric (Section 2.6.3).

2.6.1 Road Trauma Risk Analysis

The Road Trauma Risk Analysis was used to assess Road Trauma Risk (RTR) and to allocate each intersection into one of four quadrants of the RTR tool: black, red, orange and green – Figure 1 (Main Roads, 2016). The measure of the horizontal axis of the tool is crash density (the KSI – killed or seriously injured - metric) while the measure of the vertical axis is crash rate (the KSI metric divided by the level of exposure to traffic – product of flow). For each intersection, both crash density and crash rate were rated from low to high (Table 1), and then the intersection was allocated to the correct quadrant according to the ratings demonstrated in the horizontal axis (crash density) and vertical axis (crash rate) in Figure 1.

Figure 1: Road Trauma Risk Analysis tool

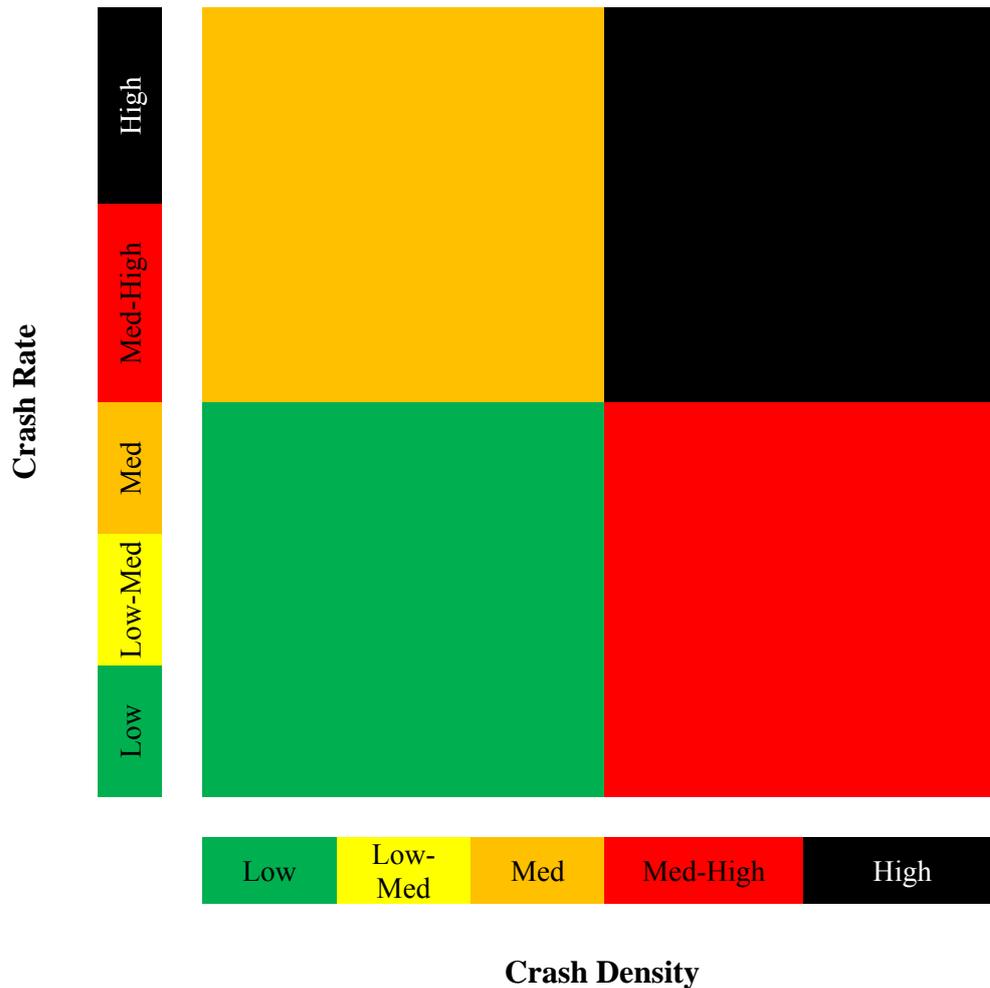


Table 1: Thresholds for categories of crash density and crash rate¹

| | Density | Rate |
|-----------------|--------------------|----------------------|
| High | Greater than 2.786 | Greater than 106.339 |
| Med-High | 1.366 to 2.7867 | 51.826 to 106.339 |
| Med | 1.000 to 1.366 | 29.450 to 51.826 |
| Low-Med | 1.366 to 0.371 | 11.443 to 29.450 |
| Low | Less than 0.371 | Less than 11.443 |

Intersections falling in the black quadrant were characterised by both high crash density and crash rate (a high number of KSI crashes at the intersection). Intersections in the red quadrant had high crash density but lower crash rate (higher number of KSI crashes at intersections which may also have high traffic volumes). Intersections in the orange

¹ Thresholds are percentile cut-offs provided by Main Roads Western Australia, based on their list of high risk intersections in 2013 calculated from 2009-2013 crash data.

quadrant had lower crash density but high crash rate (lower KSI crash numbers per intersection). Intersections in the green quadrant have both low crash density and low crash rate.

For intersections with a Road Trauma Risk (RTR) in the black quadrant but with less than 3 KSI crashes, the following exceptions applied:

1. If the intersection was on a main or major road (road ID beginning with “M”), the RTR quadrant was downgraded to orange.
2. If the intersection was on a highway or freeway (road ID beginning with “H”), the RTR quadrant was downgraded to red.

2.6.2 Comparative Safety Performance Analysis

High risk intersections identified by the Road Trauma Risk Analysis were compared by KSI metric at different product of flow levels, and each intersection was assigned a percentile score according to the intersection’s safety record relative to other intersections of the same type. The percentile cut-offs of all intersection control/speed environment combinations were provided by Main Roads Western Australia. This enabled the definition of each intersection into one of five Comparative Safety Performance (CSP) categories (Table 2). Percentile cut-offs by intersection type are indicated in the Appendix (Table 11). The CSP Analysis highlights which intersections are performing worse in terms of the KSI metric for their traffic control type, speed environment and product of flow.

Table 2: Comparative Safety Performance percentile scores and definitions

| Comparative Safety Performance | Percentile band | Definition | |
|--------------------------------|-----------------------|-------------|--|
| V | Extremely poor | 90 to 100th | Crash rate in the worst 10% band. Higher than expected in 90% of intersections of similar speed environment and signal type. |
| IV | Very poor | 70 to 90th | Crash rate in the worst 10% to 30% band. Higher than expected of 70% of similar intersections but better than the worst 10% |
| III | Poor | 50 to 70th | Crash rate in the worst 30% to 50% band. Higher than expected of 50% of similar intersections but better than the worst 10% |
| II | Adequate | 30 to 50th | Crash rate lower than the worst 50%, but higher than the safest 30% of intersections. |
| I | Good | 0 to 30th | Crash rate in the best 30% band. Lower than expected of 70% of intersections of similar speed environment and signal type. |

2.6.3 Ranking by KSI metric

The relative safety of each intersection was compared by ranking the high risk intersections in each intersection type:

1. All intersections falling in the black quadrant were ranked above those in the red quadrant.
2. All high risk intersections in the same quadrant were then ranked by CSP, with those with a CSP of V being ranked above those with a CSP of IV, and so on.
3. Finally, all intersections were further ranked from the highest KSI metric to the lowest.

Therefore, the overall highest ranked intersection (less safe and highest risk intersection) had the highest RTR (usually black quadrant) and CSP (usually CSP IV or V) with the highest KSI metric for each intersection type.

2.7 Measures of crash risk

2.7.1 IRIS crash data

The KSI metric is the baseline measure used to calculate crash density (collective risk) and crash rate (personal risk). It uses the total number of KSI crashes plus the factored-up medical crashes (Main Roads, 2016).

Equation 1: KSI metric

$$KSI\ Metric_{(of\ an\ intersection\ of\ type\ xy)} = \sum_z [No.\ of\ KSI\ Crashes_{(of\ crash\ type\ z\ at\ the\ intersection)} + Severity\ Index_{xyz} \times No.\ of\ Medical\ Crashes_{(of\ crash\ type\ z\ at\ the\ intersection)}]$$

where

$x =$ speed environment

$y =$ intersection control

$z =$ crash type

and

$$Severity\ Index_{xyz} = \frac{Number\ of\ KSI\ Crashes_{xyz}}{Number\ of\ Casualty\ Crashes_{xyz}}$$

Two measures of crash risk were required for the analysis methodologies: crash density and crash rate².

1. Crash density (or collective risk): a measure of the number of KSI crashes (and factored-up medical crashes) for intersections (Table 1 - low, low-medium, medium, medium-high or high).

Equation 2: Crash density

$$\text{Crash Density (intersection)} = \text{KSI Metric}$$

2. Crash rate (or personal risk): KSI metric per level of exposure for intersections (Table 1 - low, low-medium, medium, medium-high or high).

Equation 3: Crash rate

$$\text{Crash Rate (intersection)} = \frac{\text{KSI Metric} \times 10^8}{\text{PoF} \times 5 \times 365 \times 1.7}$$

where

PoF = product of flow

2.7.2 Exposure to traffic

A measure of traffic flow and potential traffic conflicts is product of flow (PoF). The data for the major and minor road for each intersection (annual average daily traffic - AADT) was used to calculate the product of flow according to the following equation (Main Roads, 2016):

Equation 4: Product of flow

Product of Flow

$$= \{ \text{Average (AADT for major road before \& after intersection)} \}$$

×

$$\text{Average (AADT for minor road before \& after intersection)}\}^{0.4}$$

² The definitions for crash density and crash risk used in this report apply to intersections. They are defined differently for non-intersection (mid-block) locations.

Missing data for the major or minor road leading to a metropolitan intersection were estimated using the following business rules (Main Roads, 2016):

1. For state road/state road intersections in the metropolitan region the traffic volume on the minor road was estimated as 81% of the traffic volume for the major road.
2. For state road/local road intersections in the metropolitan region, the traffic volume on the minor road was estimated as 9% of the traffic volume for the major road.
3. For three-way intersections, the traffic volume used opposite the terminating road is assumed to be zero.

These rules were implemented using the statistical software package SAS. The data was then manually checked in Microsoft Excel and corrected if necessary.

2.8 Maps of intersection sites

Maps were created for each of the built-up intersection types (with and without traffic signals, and with roundabouts) displaying intersections by RTR and CSP categories in the appropriate colours. The maps were created using ArcGIS 10.4 (ESRI, 2015).

2.9 Changes to intersections from the start of the study period

The online software Nearmap (Nearmap Ltd., 2016) was used to check each casualty intersection for any painting, road safety treatments or structural changes to the intersection from the start of the study period (1 January 2011) to 1 December 2016. This involved using the geographic co-ordinates to locate each intersection, and then visually comparing the aerial views of the intersection immediately prior to the start date (1 January 2011) and close to the end date (1 December 2016). Any changes were characterised as follows:

1. Minor changes were applied to the intersection between 1 January 2011 and 1 December 2016, such as painting or repainting of lines and/or arrows.
2. Significant changes were applied to the intersection between 1 January 2011 and 1 December 2016; these changes could be road safety related treatments other than painting, and/or traffic related structure overhaul.

The final ranked high risk intersection tables were then annotated with one or two asterisks if there had been any changes during the study period. Intersections with no changes were not annotated.

2.10 Ethics approval

The project was approved by Curtin Human Research Ethics committee in April 2016 (approval number HRE 2016-0071).

3. RESULTS

The results for each intersection type are reported from Sections 3.1 to 3.8, as described below. Road Trauma Risk Analysis was undertaken to assess metropolitan intersections according to the Road Trauma Risk (RTR) tool (Figure 2). Intersections with less than three observed KSI crashes were downgraded to red or orange depending on their road type (main road or highway).

Figure 2: Key to Road Trauma Risk Analysis tool

| <u>Legend</u> | |
|---------------|--|
| ● | Black Intersections – High Crash Density & High Crash Rate |
| ● | Red Intersections – High Crash Density & Low Crash Rate |
| ● | Orange Intersections – Low Crash Density & High Crash Rate |
| ● | Green Intersections – Low Crash Density & Low Crash Rate |

The analyses were done for each of the nine intersection types, by intersection speed environment (low, built-up and open) and control type (traffic signal, roundabout and no traffic signal). Only eight categories are presented below. The ninth category (intersections with a roundabout at low-speed) is not included as there were no intersections in this category.

Once high risk intersections were selected for each intersection type, Comparative Safety Performance Analysis was undertaken for these intersections, yielding a Comparative Safety Performance (CSP) category from black (I, extremely poor CSP) to green (V, good CSP – Figure 3).

Figure 3: Key to Comparative Safety Performance tool

| <u>Legend</u> | |
|---------------|---|
| ◆ | Black Intersections – Extremely Poor Comparative Safety Performance |
| ◆ | Red Intersections – Very Poor Comparative Safety Performance |
| ◆ | Orange Intersections – Poor Comparative Safety Performance |
| ◆ | Yellow Intersections – Adequate Comparative Safety Performance |
| ◆ | Green Intersections – Good Comparative Safety Performance |

The high risk intersections in each intersection type (speed environment and traffic control type) were ranked by RTR first (all intersections in the black quadrant were ranked above red quadrant intersections), then by CSP (intersections in the RTR black quadrant in CSP V were ranked first, followed by intersections in the RTR black

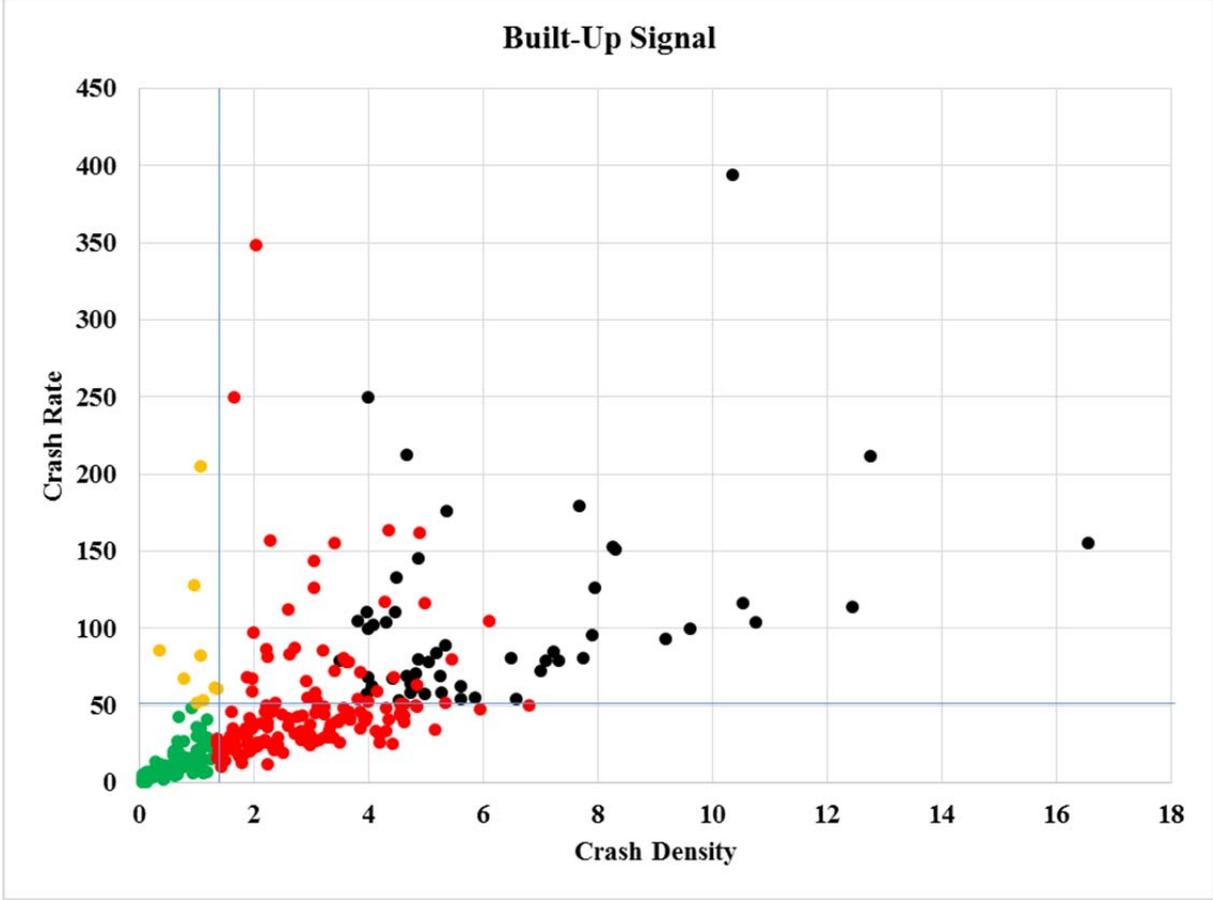
quadrant in CSP IV, and so on, followed by ranking of intersections in the red quadrant in a similar manner) and finally these RTR/CSP subgroups were ranked from the highest KSI metric downwards - the intersection in the RTR black quadrant in CSP V with the highest KSI metric was ranked first (i.e., as the highest risk intersection) for each intersection type.

Each intersection in the high risk tables was checked using the aerial photography available in Nearmap (as outlined in the methods) for changes over the study period. When more than 10 intersections were in the high risk table for an intersection type, only the intersections which fell in the RTR black quadrant and the top two CSP categories (IV and V) were assessed in Nearmap.

3.1 Intersections with traffic signals and a built-up speed environment

3.1.1 Road Trauma Risk Analysis

Figure 4: Road Trauma Risk: Intersections with traffic signals and a built-up speed environment

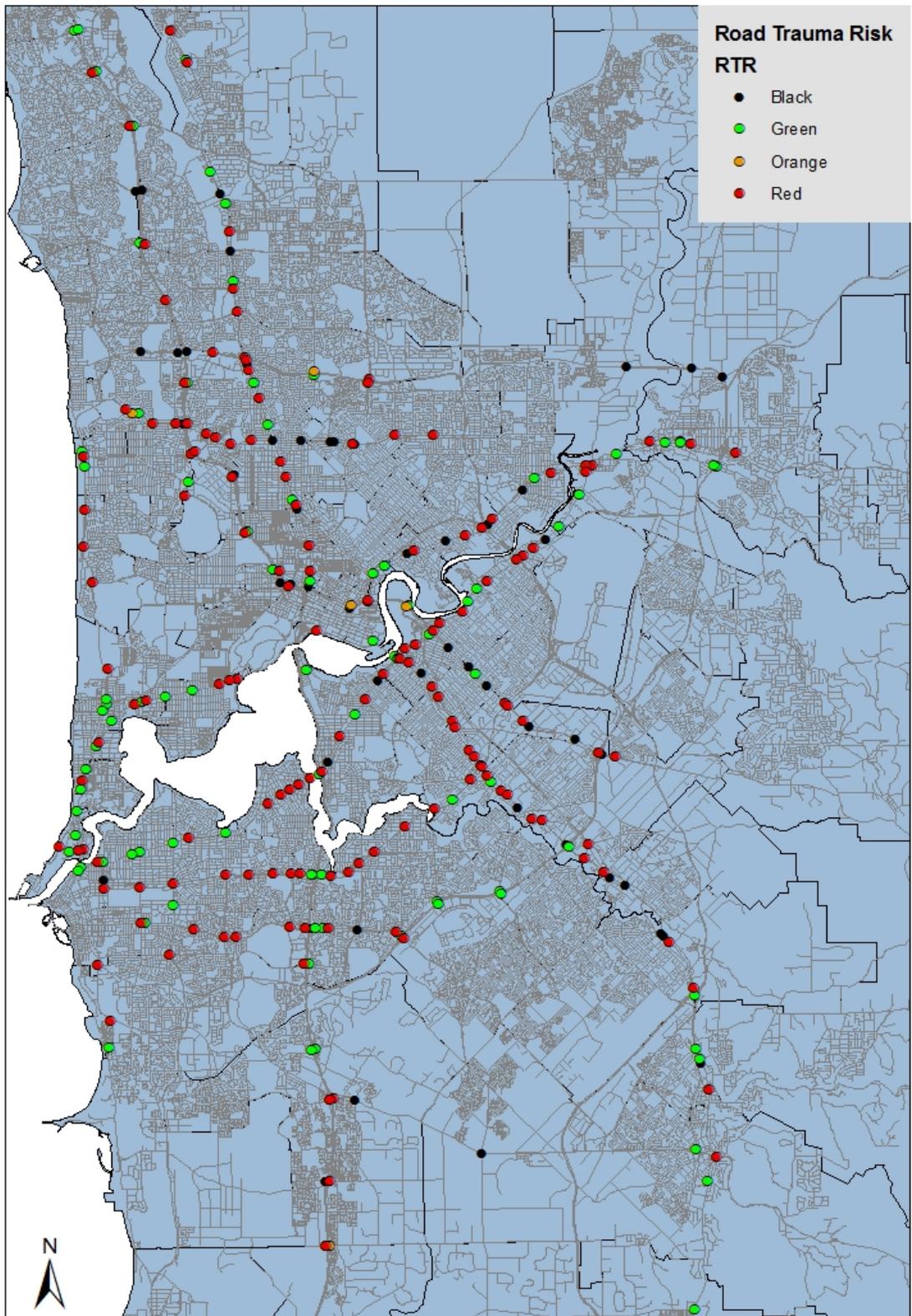


A high number of intersections with traffic signals in a built-up speed environment (n=310) had casualty crashes compared to other intersection types. This intersection type made up 31% of all 996 examined intersections. The RTR ratings for this group of intersections are shown in Figure 4, Map 1 and Table 3. A total of 52 (17%) of the intersections were in the black quadrant and 154 (50%) were in the red quadrant. The intersections falling in this (black) quadrant covered a large range of crash density (KSI metrics – Figure 4) ranging from 3.5 [Welshpool Rd East & H018 (Roe Hwy) Sth Bound Off & On] to 17 [Guildford Rd & H017 (Tonkin Hwy) Sth Bound On & Off Ramps], all falling in the “high” crash density category (Table 3). Intersections had crash rates that were classified as either medium-high or high (range: 53-394). There were two outliers: one had a high crash density (13) but a very high crash rate (212 – Intersection 4061, Armadale Road and Nicholson Road), while the other had a

moderate crash rate but a very high crash density (Intersection 14275, Guildford Road and H017 on/off ramp - Figure 4 and Table 3).

More intersections with highest RTR (black quadrant) were situated closer to the Perth CBD (Map 1). Those intersections with a slightly lower RTR (red quadrant) were spread throughout the city, while many intersections in the green quadrant were further from the CBD.

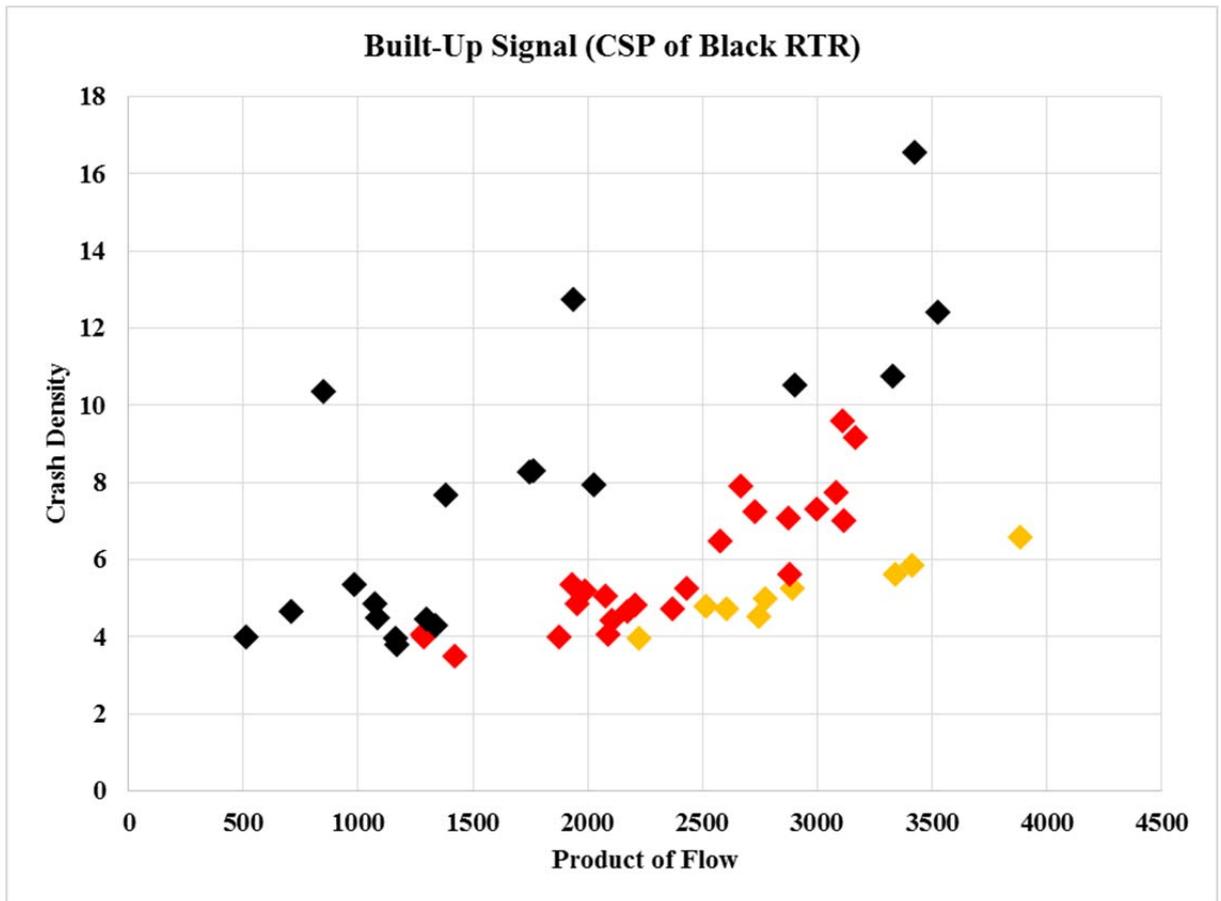
Map 1: Road Trauma Risk: Intersections with traffic signals and a built-up speed environment



Of the 52 crashes in the black quadrant indicated in Table 3 (page 21) below, 15 (29%) were three-way intersections, 23 (44%) were four-way intersections and the remainder were of unknown type.

3.1.2 Comparative Safety Performance Analysis

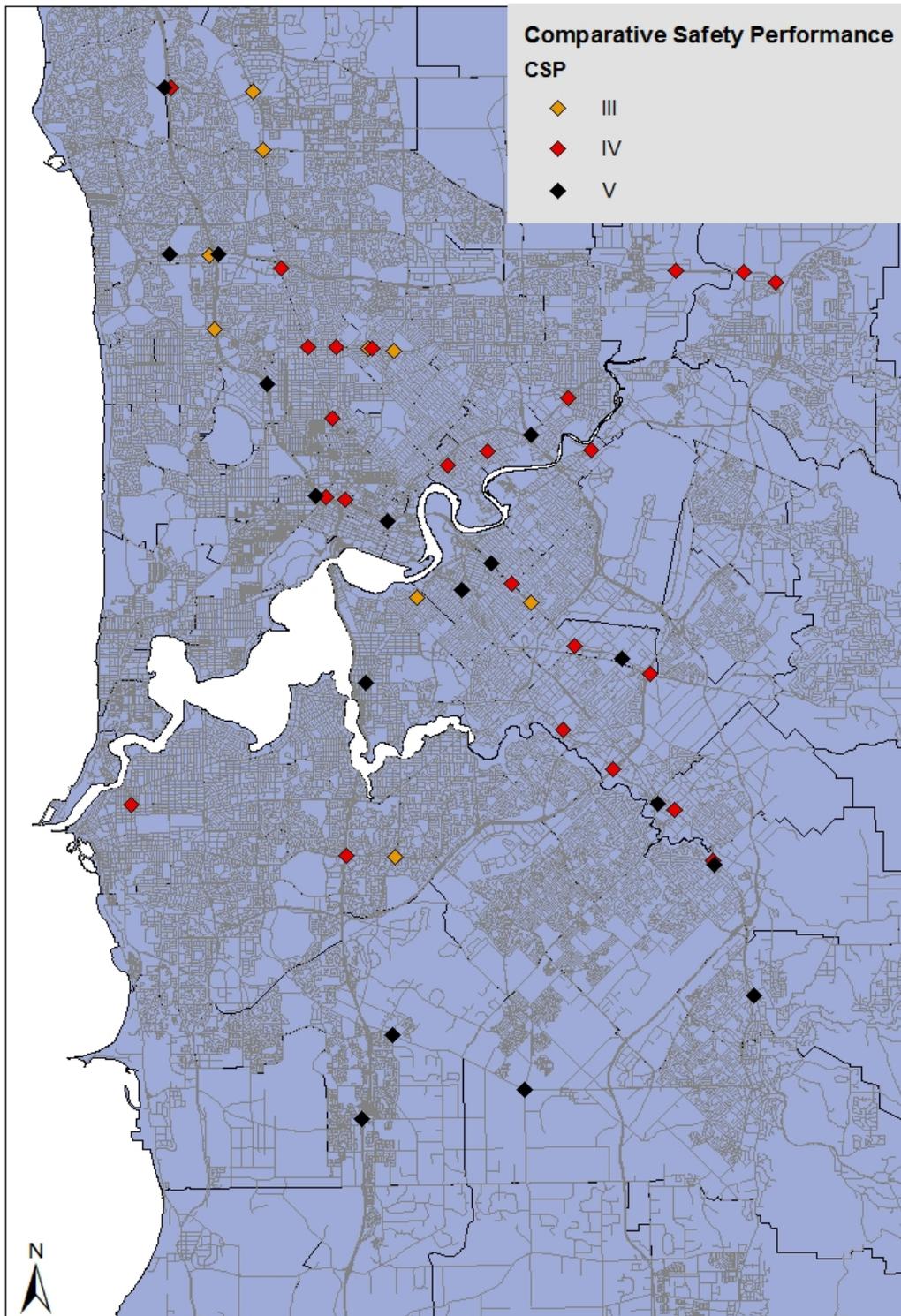
Figure 5: Comparative Safety Performance: Intersections with traffic signals and a built-up speed environment



The CSP categories for the 52 intersections identified as high risk are shown in Figure 5 and Map 2. All 52 intersections were in the black quadrant. A total of 19 (37%) of these intersections were in CSP category V, 24 (46%) were in CSP IV and 9 (17%) were in CSP III. Intersections in this category with the highest CSP category (V - least safe intersections) tended to have lower products of flow (range: 513-3525) with more than half of the intersections had a product of flow below 2000 (Figure 5 and Table 3).

Those in CSP IV were located in the North-East and South-West part of the metro area (Map 2) while those in CSP III and V were located roughly along a line running through the CBD from North-West to South-East.

Map 2: Comparative Safety Performance: Intersections with traffic signals and a built-up speed environment



3.1.3 Ranking of high risk intersections

Table 3: Ranking of high risk intersections with traffic signals and a built-up speed environment

| Intersection number | Intersection Description | Product of Flow | Crash Rate | Crash Rate Category | Crash Density Category | RTR ¹ Quadrant | CSP ² Category | KSI Metric | Intersection rank |
|---------------------|--|-----------------|------------|---------------------|------------------------|---------------------------|---------------------------|------------|-------------------|
| 14275 | GUILDFORD RD & H017 STH BOUND ON & OFF RAMPS | 3425.13 | 155.74 | High | High | Black | V | 16.55 | 1** |
| 4061 | ARMADALE RD & NICHOLSON RD | 1940.28 | 211.94 | High | High | Black | V | 12.76 | 2 |
| 50781 | SOUTHPORT ST & CAMBRIDGE ST | 3524.70 | 113.63 | High | High | Black | V | 12.43 | 3* |
| 39039 | FRANCISCO ST & ORRONG RD & FRANCISCO PL | 3329.14 | 104.13 | Med-High | High | Black | V | 10.76 | 4 |
| 3642 | REID HWY & REID HWY - MITCHELL FWY STH ON & H016 STH BOUND - REID HWY OFF & BALC | 2904.69 | 116.73 | High | High | Black | V | 10.52 | 5** |
| 14185 | ALBANY HWY (END DUAL) & DUNCAN ST | 847.88 | 393.72 | High | High | Black | V | 10.36 | 6 |
| 4347 | HUTTON ST ON - H016 STH BOUND & HUTTON ST & H016 STH BOUND - HUTTON ST OFF | 1764.45 | 151.58 | High | High | Black | V | 8.30 | 7 |
| 13882 | H016 NTH BND - WHITFORDS AV OFF & WHITFORDS AV & WHITFORDS AV OFF - H016 NTH BND | 1746.19 | 152.63 | High | High | Black | V | 8.27 | 8 |
| 14753 | ALBANY HWY & BURSLEM DR | 2030.19 | 126.27 | High | High | Black | V | 7.95 | 9 |
| 81636 | MCDOWELL ST & ORRONG RD | 1382.65 | 179.01 | High | High | Black | V | 7.68 | 10 |
| 168405 | H016 NTH BND END & BURNS BEACH RD | 984.04 | 175.76 | High | High | Black | V | 5.37 | 11* |
| 14845 | ALBANY HWY & DENNY AV | 1075.08 | 145.65 | High | High | Black | V | 4.86 | 12 |
| 82815 | ALBANY HWY (END DUAL) & MAIN ST | 706.74 | 212.69 | High | High | Black | V | 4.66 | 13* |
| 14786 | ROE HWY & BERKSHIRE RD | 1084.13 | 133.33 | High | High | Black | V | 4.48 | 14** |
| 12315 | ARMADALE RD & TAPPER RD & VERDE DR | 1297.60 | 110.84 | High | High | Black | V | 4.46 | 15 |
| 119141 | REID HWY & OKELY RD (NORTH) | 1334.46 | 103.86 | Med-High | High | Black | V | 4.30 | 16** |
| 119092 | KWINANA FWY NTH - RUSSELL RD & RUSSELL RD & RUSSELL RD - KWINANA FWY NTH | 513.20 | 250.24 | High | High | Black | V | 3.98 | 17 |
| 14121 | CANNING HWY & HENLEY ST | 1160.57 | 110.41 | High | High | Black | V | 3.98 | 18 |
| 50639 | EAST PDE - LORD ST & LORD ST & NEWCASTLE ST | 1168.34 | 105.11 | Med-High | High | Black | V | 3.81 | 19 |
| 77668 | REID HWY & WEST SWAN RD | 3109.87 | 99.56 | Med-High | High | Black | IV | 9.61 | 20 |

| | | | | | | | | | |
|--------|---|---------|--------|----------|------|-------|-----|------|----|
| 4147 | GREAT NORTHERN HWY & ROE HWY & GREAT NORTHERN HWY & REID HWY | 3165.27 | 93.42 | Med-High | High | Black | IV | 9.17 | 21 |
| 4336 | WANNEROO RD & NEWCASTLE ST & CHARLES ST ON - H016 STH BOUND & H016 NTH BOUND | 2666.58 | 95.56 | Med-High | High | Black | IV | 7.91 | 22 |
| 55048 | KARRINYUP - MORLEY HWY & WANNEROO RD | 3085.44 | 80.76 | Med-High | High | Black | IV | 7.73 | 23 |
| 55516 | KARRINYUP - MORLEY HWY & FLINDERS ST | 2996.15 | 78.79 | Med-High | High | Black | IV | 7.32 | 24 |
| 38822 | ORRONG RD & ARCHER ST | 2731.93 | 85.31 | Med-High | High | Black | IV | 7.23 | 25 |
| 50690 | WANNEROO RD & GREEN ST & WALCOTT ST | 2874.66 | 79.39 | Med-High | High | Black | IV | 7.08 | 26 |
| 4160 | GUILDFORD RD & GARRATT RD | 3119.15 | 72.45 | Med-High | High | Black | IV | 7.01 | 27 |
| 14106 | SOUTH ST & H015 STH BOUND - SOUTH ST WEST | 2577.70 | 81.10 | Med-High | High | Black | IV | 6.49 | 28 |
| 14898 | ROE HWY & TOODYAY RD & TOODYAY RD | 2878.37 | 62.87 | Med-High | High | Black | IV | 5.61 | 29 |
| 14172 | GUILDFORD RD & EIGHTH AV | 1933.93 | 89.15 | Med-High | High | Black | IV | 5.35 | 30 |
| 14713 | GREAT EASTERN HWY & FAUNTLEROY AV | 2432.35 | 69.48 | Med-High | High | Black | IV | 5.24 | 31 |
| 13900 | WHITFORDS AV ON - H016 STH BOUND & WHITFORDS AV & H016 STH BOUND - WHITFORDS AV | 1987.46 | 84.10 | Med-High | High | Black | IV | 5.19 | 32 |
| 67708 | LOFTUS ST ON - H020 EAST BOUND & LOFTUS ST & LEEDERVILLE PDE | 2076.51 | 78.24 | Med-High | High | Black | IV | 5.04 | 33 |
| 4161 | GUILDFORD RD & COLLIER RD | 1953.71 | 80.26 | Med-High | High | Black | IV | 4.86 | 34 |
| 55559 | KARRINYUP - MORLEY HWY & GRAND PROM | 2206.82 | 70.45 | Med-High | High | Black | IV | 4.82 | 35 |
| 39611 | KEWDALE RD & ORRONG RD | 2369.56 | 64.27 | Med-High | High | Black | IV | 4.72 | 36 |
| 4413 | ALBANY HWY & KELVIN RD & OLGA RD | 2175.85 | 69.05 | Med-High | High | Black | IV | 4.66 | 37 |
| 14306 | ALBANY HWY & LIEGE ST | 2107.26 | 67.51 | Med-High | High | Black | IV | 4.41 | 38 |
| 13822 | STIRLING HWY & MARMION ST | 1278.43 | 102.66 | Med-High | High | Black | IV | 4.07 | 39 |
| 128025 | KENWICK LINK & H018 NTH BND OFF & ON | 2088.19 | 62.68 | Med-High | High | Black | IV | 4.06 | 40 |
| 11975 | WANNEROO RD & VICTORIA RD & HALLEY RD | 1289.05 | 99.96 | Med-High | High | Black | IV | 4.00 | 41 |
| 4123 | ALBANY HWY & FREMANTLE RD | 1876.50 | 68.44 | Med-High | High | Black | IV | 3.98 | 42 |
| 75552 | WELSHPOOL RD EAST & H018 STH BOUND OFF & ON | 1422.90 | 79.26 | Med-High | High | Black | IV | 3.50 | 43 |
| 38828 | ORRONG RD & OATS ST - LG BDRY | 3884.83 | 54.54 | Med-High | High | Black | III | 6.57 | 44 |

| | | | | | | | | | |
|-------|---|---------|-------|----------|------|-------|-----|------|----|
| 3641 | REID HWY & REID HWY ON - H016 NTH BOUND & MITCHELL FWY NTH - REID HWY | 3411.28 | 55.41 | Med-High | High | Black | III | 5.86 | 45 |
| 4356 | KARRINYUP - MORLEY HWY & KARRINYUP RD ON - H016 NTH BOU & CEDRIC ST - KARRINYUP | 3343.21 | 54.11 | Med-High | High | Black | III | 5.61 | 46 |
| 4154 | WANNEROO RD & HEPBURN AV | 2891.19 | 58.69 | Med-High | High | Black | III | 5.26 | 47 |
| 55308 | KARRINYUP - MORLEY HWY & ALEXANDER DR (STH BND) | 2772.34 | 57.99 | Med-High | High | Black | III | 4.99 | 48 |
| 47049 | SOUTH ST & KAREL AV | 2517.12 | 61.34 | Med-High | High | Black | III | 4.79 | 49 |
| 4575 | WANNEROO RD & WHITFORDS AV | 2605.69 | 58.50 | Med-High | High | Black | III | 4.73 | 50 |
| 4462 | CANNING HWY & WAY RD | 2747.20 | 53.05 | Med-High | High | Black | III | 4.52 | 51 |
| 55596 | KARRINYUP - MORLEY HWY & DIANELLA DR | 2226.50 | 57.37 | Med-High | High | Black | III | 3.96 | 52 |

¹RTR: Road Trauma Risk ²CSP: Comparative Safety Performance

* Minor change(s) were applied to the intersection between 1 January 2011 and 1 December 2016, such as painting or repainting of lines and/or arrows.

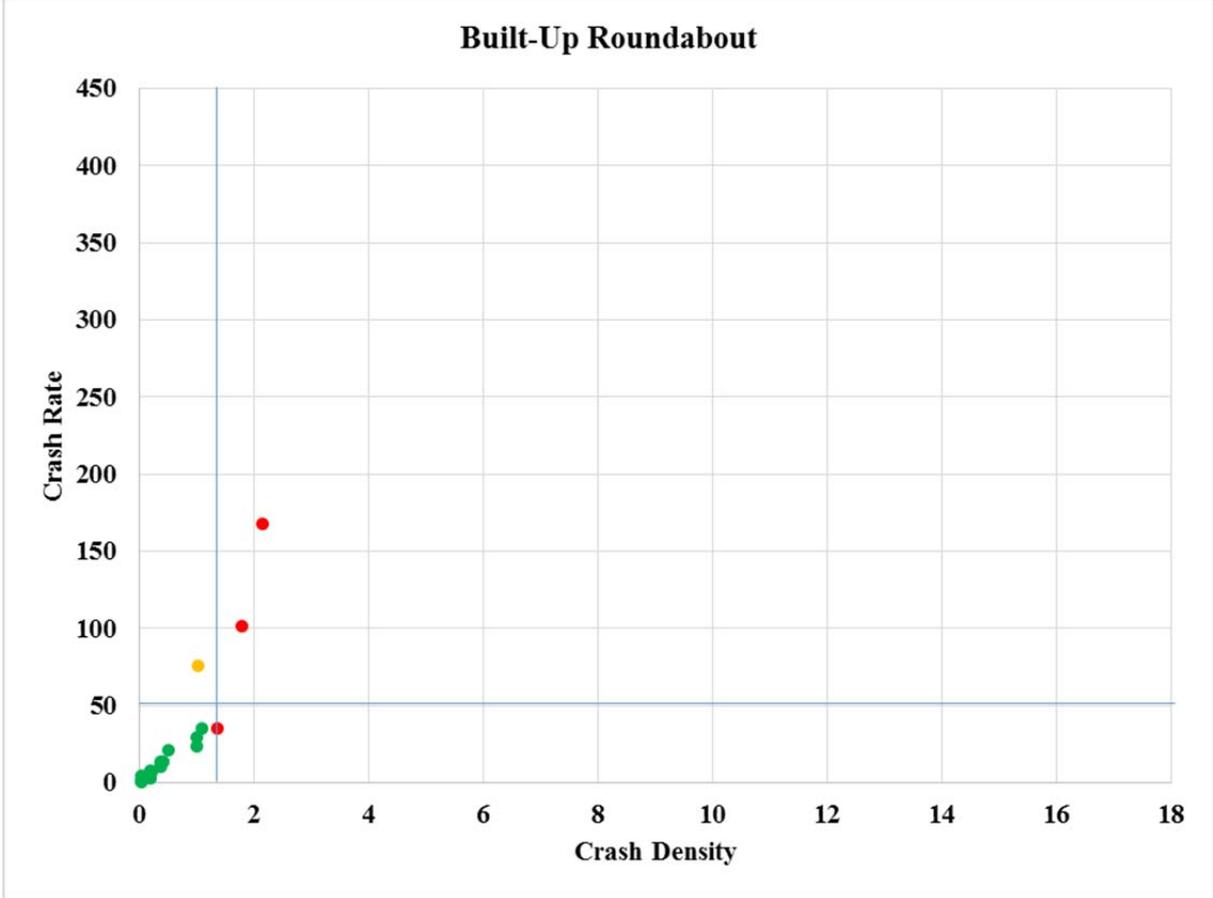
** Significant change(s) were applied to the intersection between 1 January 2011 and 1 December 2016, that could be road safety related treatment(s) other than painting, and/or traffic related structure overhaul.

Table 3 shows the rankings of the 52 intersections in the built-up speed environment by RTR, CSP and KSI metric. The top six intersections were in the black quadrant with a CSP of V and a KSI metric of above 10.

3.2 Intersections with a roundabout and a built-up speed environment

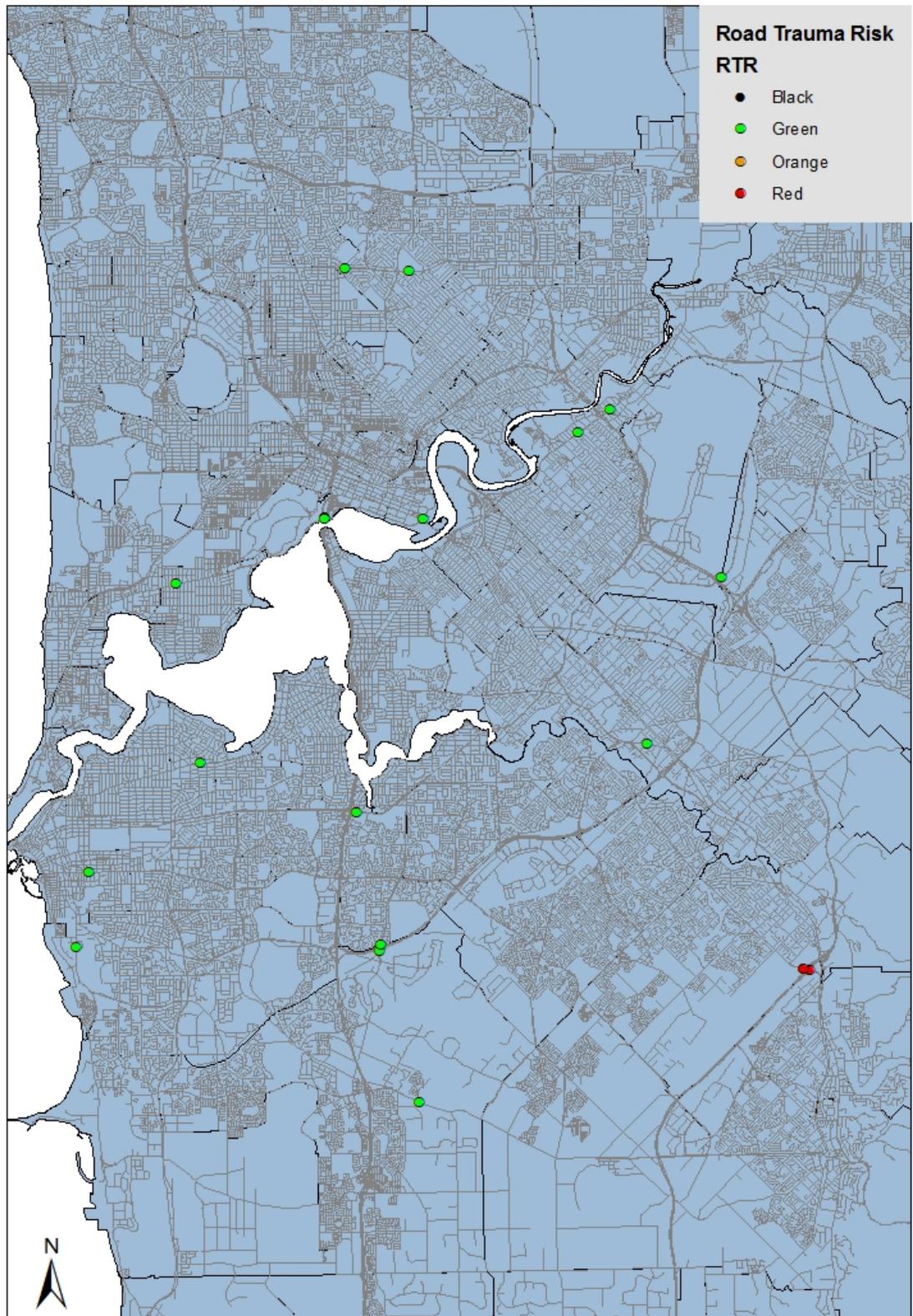
3.2.1 Road Trauma Risk Analysis

Figure 6: Road Trauma Risk: Intersections with a roundabout and a built-up speed environment



Very few intersections controlled with a roundabout in a built-up speed environment had casualty crashes (n=23, 2.3% of all examined intersections). The RTR ratings for this group of crashes are shown in Figure 6 and Map 3. No intersections were classified in the black quadrant, with three (13%) of the intersections being classified in the red quadrant and one (4.3%) in the orange quadrant. Most intersections in the red quadrant had relatively low crash rates (KSI metric/exposure to traffic, range: 35-168 – Table 4) and crash density (KSI metric, range: 1.4-2.2) compared to the intersections in the built-up speed environment with traffic signals. Map 3 demonstrated the location of the intersections with the red and orange quadrants: in outer suburbs such as Rockingham and Southern River/Gosnells (Map 3).

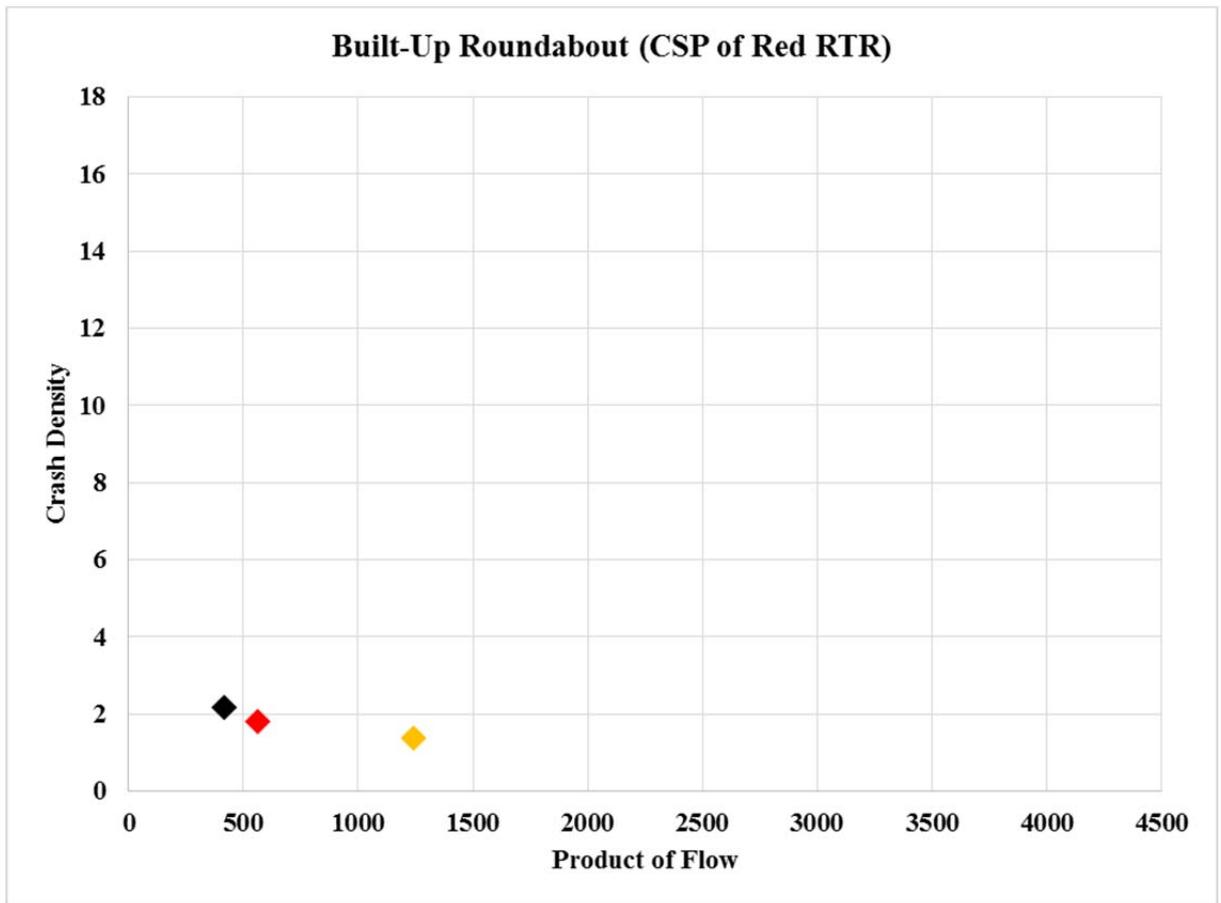
Map 3: Road Trauma Risk: Intersections with a roundabout and a built-up speed environment



Of the three intersections with roundabouts in built-up speed environments which were considered the least safe, all three fell in the red quadrant (Table 4). Two were initially categorised as black quadrant intersections but were manually altered to the red quadrant due to their lower KSI (below three) and highway/freeway road type. One was a four-way intersection and the other two were unknown intersection types.

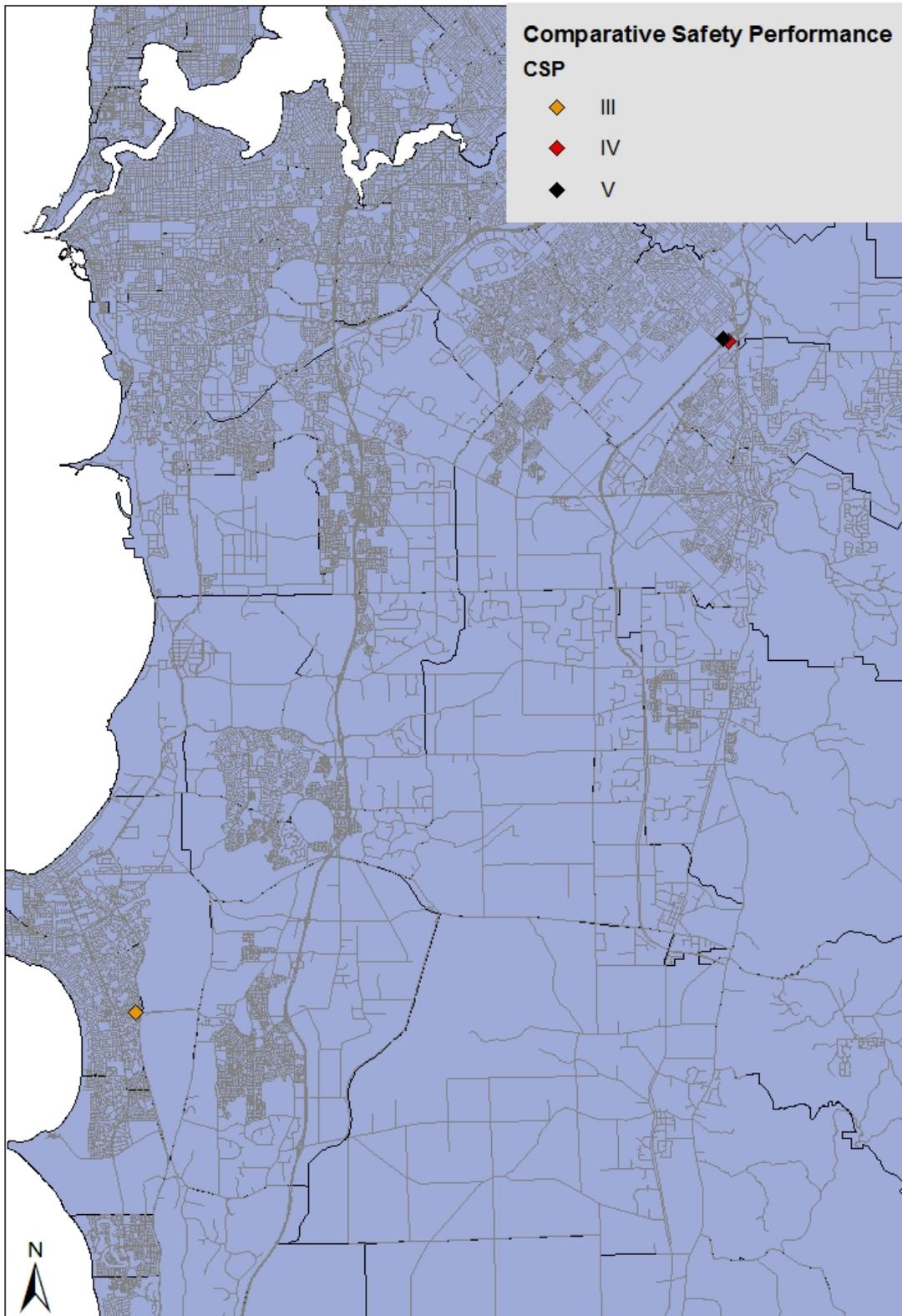
3.2.2 Comparative Safety Performance Analysis

Figure 7: Comparative Safety Performance: Intersections with a roundabout and a built-up speed environment



The CSP categories are shown in Figure 7 and Map 4. Of the three intersections selected as high risk intersections, one each were in CSP categories III, IV and V. The intersection with the highest CSP score (V, the least safe intersection) had the lowest products of flow (414), compared to the intersection in CSP III which had a product of flow of 1245 (Table 4). Crash density ranged from 35 to 168. All three intersections were located in outer suburbs (Map 4), with the intersection in CSP V located in the Southern River/Gosnells area.

Map 4: Comparative Safety Performance: Intersections with a roundabout and a built-up speed environment



3.2.3 Ranking of high risk intersections

Table 4: Ranking of high risk intersections with a roundabout and a built-up speed environment

| Intersection number | Intersection Description | Product of Flow | Crash Rate | Crash Rate Category | Crash Density Category | RTR ¹ Quadrant | CSP ² Category | KSI Metric | Intersection rank |
|---------------------|---|-----------------|------------|---------------------|------------------------|---------------------------|---------------------------|------------|-------------------|
| 139158 | TONKIN HWY (NTH BND) OFF & CORFIELD ST & TONKIN HWY (NTH BND) ON | 413.75 | 167.91 | High | Med-High | Red | V | 2.16 | 1 |
| 139162 | TONKIN HWY (STH BND) OFF & CORFIELD ST & TONKIN HWY (STH BND) ON | 567.76 | 101.33 | Med-High | Med-High | Red | IV | 1.78 | 2* |
| 119133 | ENNIS AV NTH - SAFETY BAY RD & SAFETY BAY RD & SAFETY BAY RD - ENNIS AV NTH | 1,245.43 | 35.47 | Med | Med-High | Red | III | 1.37 | 3 |

¹RTR: Road Trauma Risk ²CSP: Comparative Safety Performance

* Minor change(s) were applied to the intersection between 1 January 2011 and 1 December 2016, such as painting or repainting of lines and/or arrows.

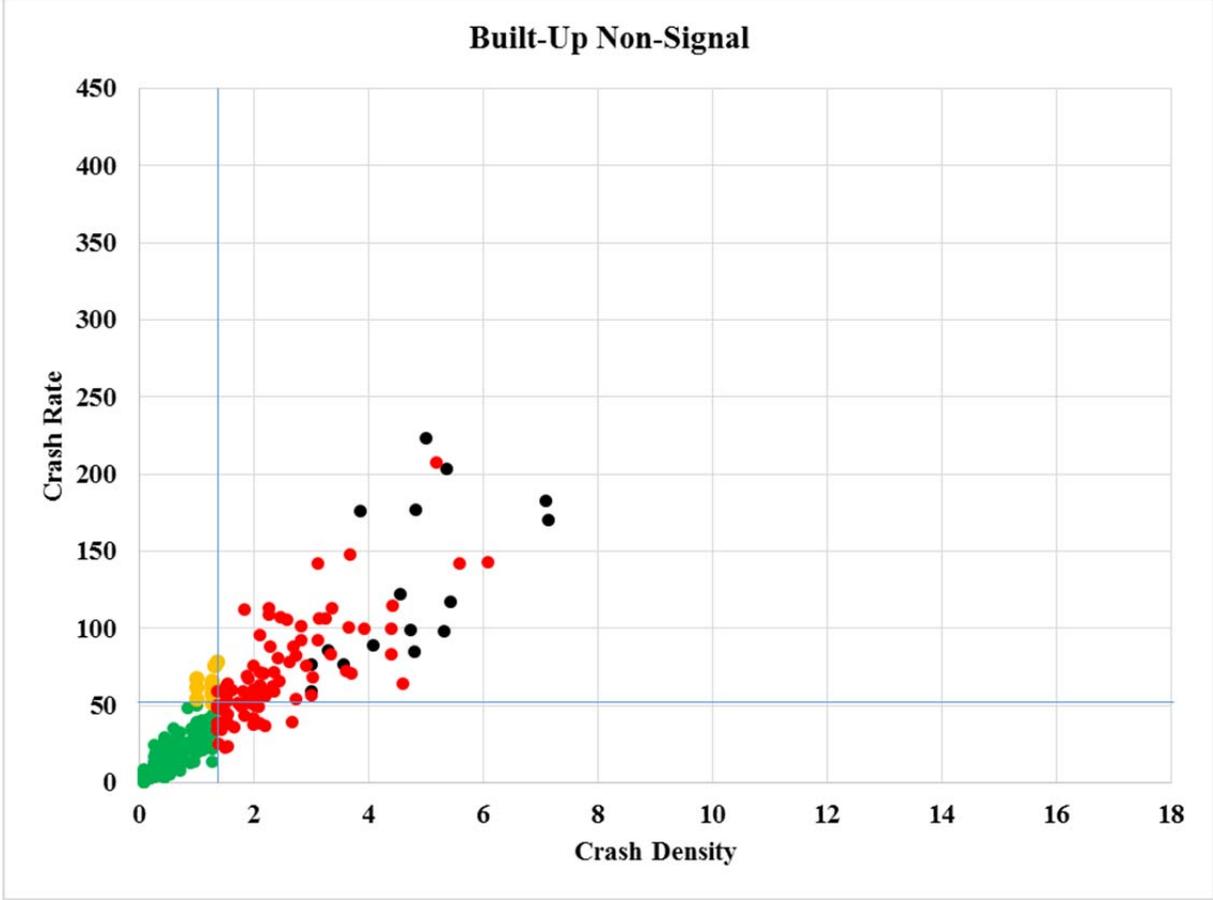
** Significant change(s) were applied to the intersection between 1 January 2011 and 1 December 2016, that could be road safety related treatment(s) other than painting, and/or traffic related structure overhaul.

The intersections with the highest RTR in this intersection type were all in the red quadrant (Table 4). As the only intersection classified as CSP category V, this intersection was ranked first, with the intersection in CSP IV ranked second and the intersection in CSP III ranked third.

3.3 Intersections with no traffic signals and built-up speed environment

3.3.1 Road Trauma Risk Analysis

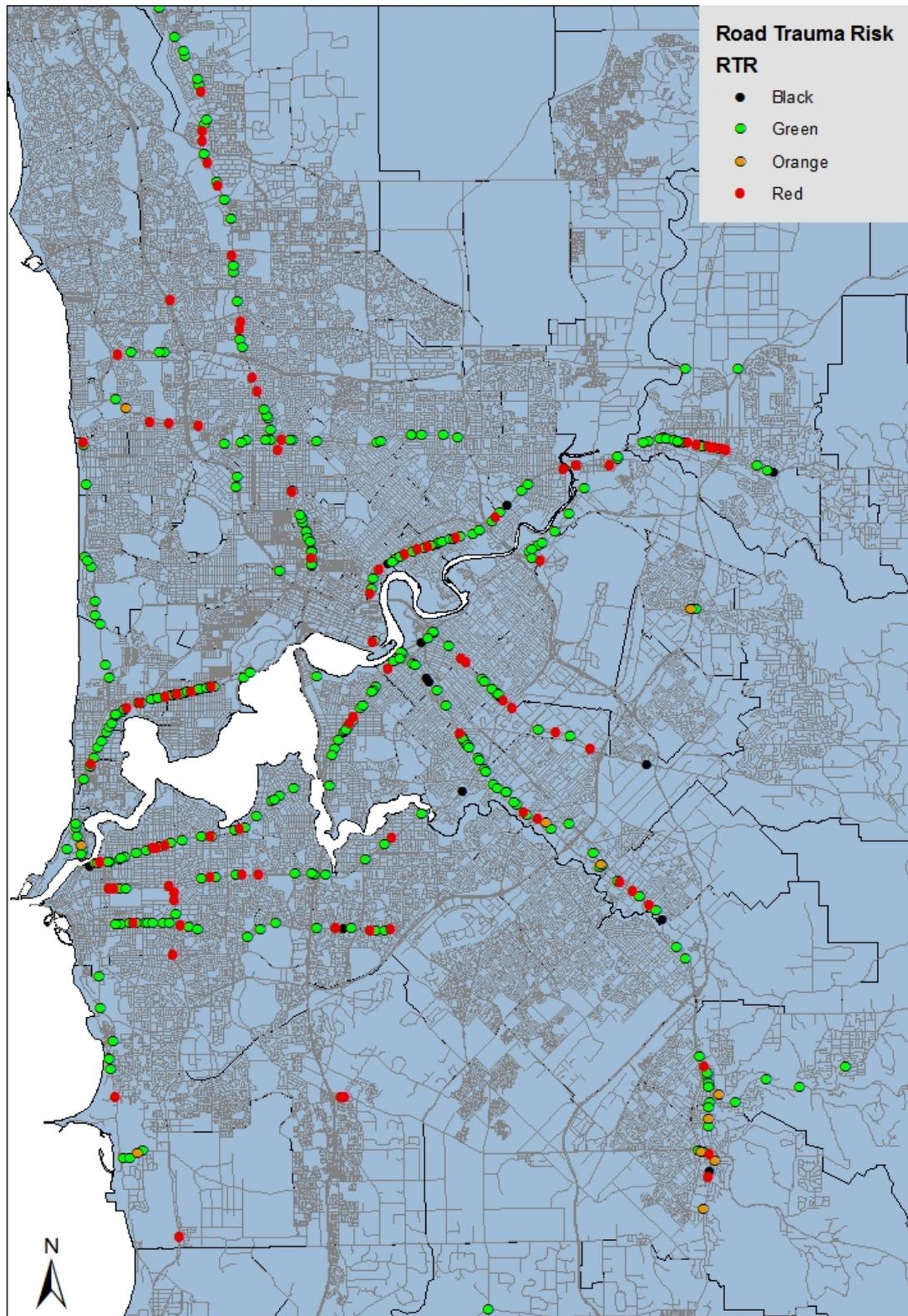
Figure 8: Road Trauma Risk: Intersections with no traffic signals and built-up speed environment



A high proportion of intersections (n=425, 43% of all intersections in the study) without traffic signals in a build-up speed environment had at least one casualty crash compared to other intersection categories. The RTR ratings for this group of crashes are shown in Figure 8 and Map 5. However, only 16 (3.8%) intersections in this intersection type were in the black quadrant, with 94 (22%) being in the red quadrant. Intersections in the black quadrant had lower crash density (range: 3-7, Figure 8 and Table 5) compared to intersections with traffic signals (up to 17 – Figure 4) with crash rates which ranged from 59 to 224.

Map 5 shows the location of the intersections of this type by RTR quadrant. The intersections with a higher RTR were spread throughout the Perth metro area, with most black quadrant intersections being located south of the river (Map 5).

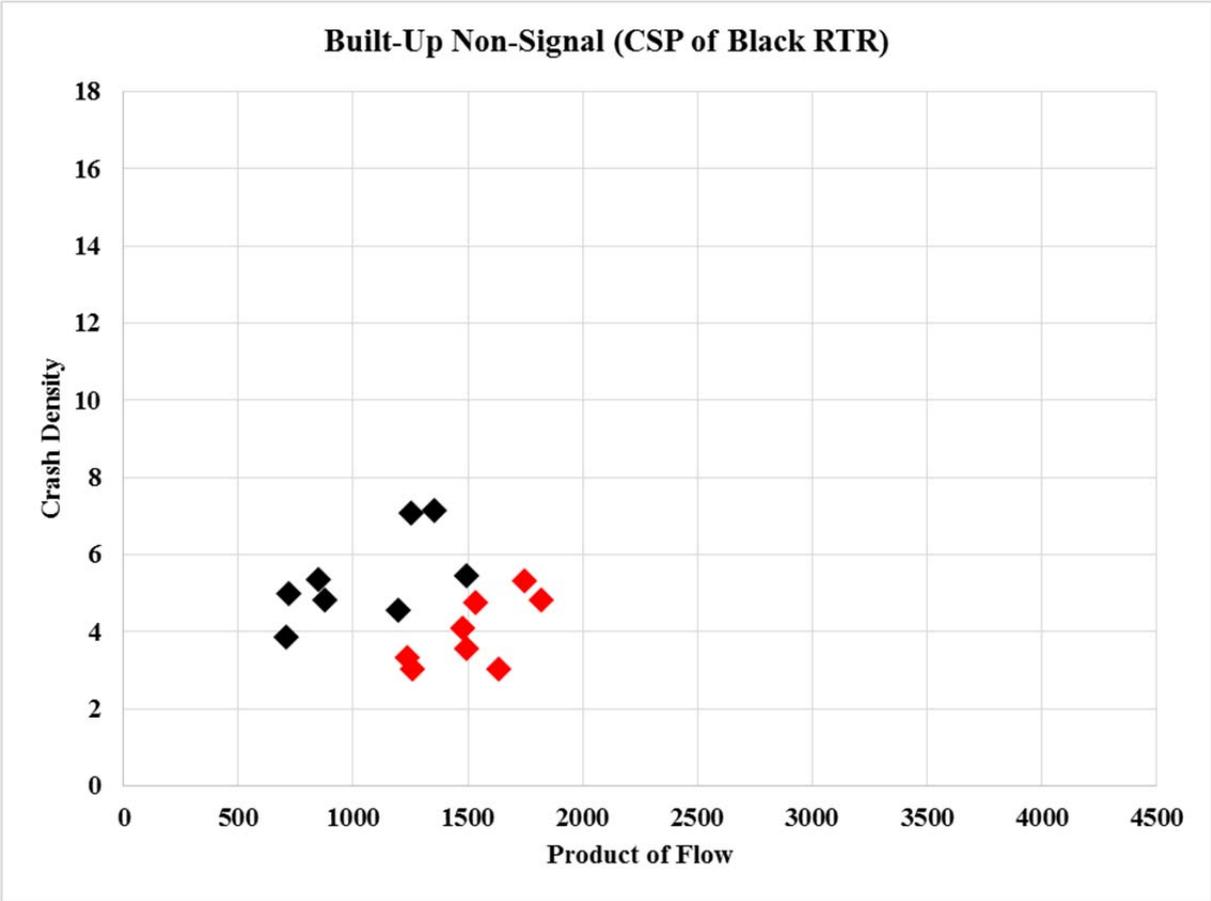
Map 5: Road Trauma Risk: Intersections with no traffic signals and built-up speed environment



3.3.2 Comparative Safety Performance Analysis

Table 5 lists the high risk intersections selected using RTR. All 16 intersections were in the black quadrant, with 8 (50%) being three-way intersections, 6 (38%) being four-way intersections and the remainder being of unknown type.

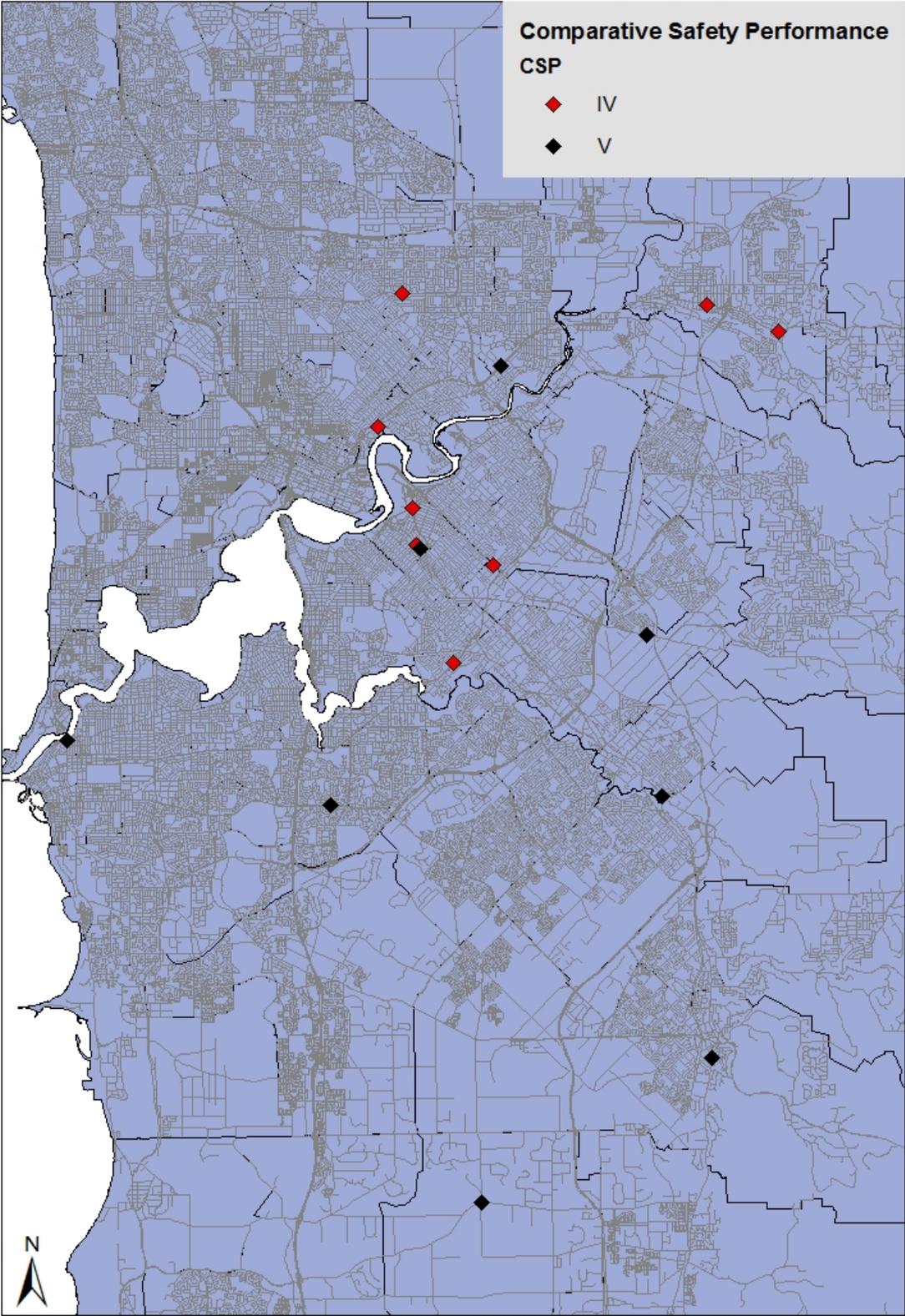
Figure 9: Comparative Safety Performance: Intersections with no traffic signals and built-up speed environment



The CSP categories of the 16 high risk crashes of this intersection type (all in the black quadrant) are shown in Figure 9. Eight (50%) had a CSP of V and eight (50%) had a CSP of IV. Intersections with in the highest CSP (V) tended to have lower products of flow (range: 706-1496) but higher crash density (range: 117-224) than similar intersections with lower CSP scores (Table 5). Crash density in the least safe intersections was generally across a smaller range (4 to 7) than built-up intersections with traffic signals (1 to 17).

Map 6 shows the location of the casualty intersections in the built-up environment with no traffic signals. Higher CSP-rated intersections in this class occurred more towards the eastern side of the metro area. Most of those in CSP V were south of the river.

Map 6: Comparative Safety Performance: Intersections with no traffic signals and built-up speed environment



3.3.3 Ranking of high risk intersections

Table 5: Ranking of high risk intersections with no traffic signals and built-up speed environment

| Intersection number | Intersection Description | Product of Flow | Crash Rate | Crash Rate Category | Crash Density Category | RTR ¹ Quadrant | CSP ² Category | KSI Metric | Intersection rank |
|---------------------|---|-----------------|------------|---------------------|------------------------|---------------------------|---------------------------|------------|-------------------|
| 54230 | NICHOLSON RD & THOMAS RD | 1353.33 | 169.91 | High | High | Black | V | 7.13 | 1* |
| 42886 | CANNING HWY & EAST ST | 1252.39 | 182.49 | High | High | Black | V | 7.09 | 2* |
| 14192 | ALBANY HWY & GRESHAM ST WELSHPOOL RD EAST & BRUCE RD | 1496.35 | 117.13 | High | High | Black | V | 5.44 | 3 |
| 45285 | & BROOK RD | 850.04 | 203.48 | High | High | Black | V | 5.37 | 4 |
| 14879 | SOUTH WESTERN HWY & THIRD RD | 719.71 | 223.61 | High | High | Black | V | 4.99 | 5* |
| 14295 | GUILDFORD RD & COLSTOUN RD | 878.20 | 176.73 | High | High | Black | V | 4.82 | 6 |
| 47051 | SOUTH ST & WHEATLEY DR ALBANY HWY & GOSNELLS RD | 1198.25 | 122.32 | High | High | Black | V | 4.55 | 7** |
| 4414 | WEST | 706.25 | 176.09 | High | High | Black | V | 3.86 | 8** |
| 4432 | GREAT EASTERN HWY & SCOTT ST | 1750.35 | 97.81 | Med-High | High | Black | IV | 5.31 | 9 |
| 14186 | GREAT EASTERN HWY & VICTORIA PARK DR & BURSWOOD RD | 1823.88 | 84.82 | Med-High | High | Black | IV | 4.80 | 10** |
| 37927 | KARRINYUP - MORLEY HWY & MCGILVRAY AV | 1536.95 | 99.09 | Med-High | High | Black | IV | 4.73 | 11 |
| 14236 | LEACH HWY & BRAIBRISE RD | 1482.29 | 88.87 | Med-High | High | Black | IV | 4.09 | 12 |
| 14188 | ALBANY HWY & AXON AV | 1496.35 | 76.58 | Med-High | High | Black | IV | 3.56 | 13 |
| 14855 | GREAT EASTERN HWY & FERGUSON ST | 1238.44 | 85.97 | Med-High | High | Black | IV | 3.30 | 14 |
| 38835 | ORRONG RD & PRESIDENT ST | 1634.71 | 59.15 | Med-High | High | Black | IV | 3.00 | 15 |
| 75574 | GUILDFORD RD & SECOND AV EAST | 1259.07 | 76.80 | Med-High | High | Black | IV | 3.00 | 16* |

¹RTR: Road Trauma Risk ²CSP: Comparative Safety Performance

* Minor change(s) were applied to the intersection between 1 January 2011 and 1 December 2016, such as painting or repainting of lines and/or arrows.

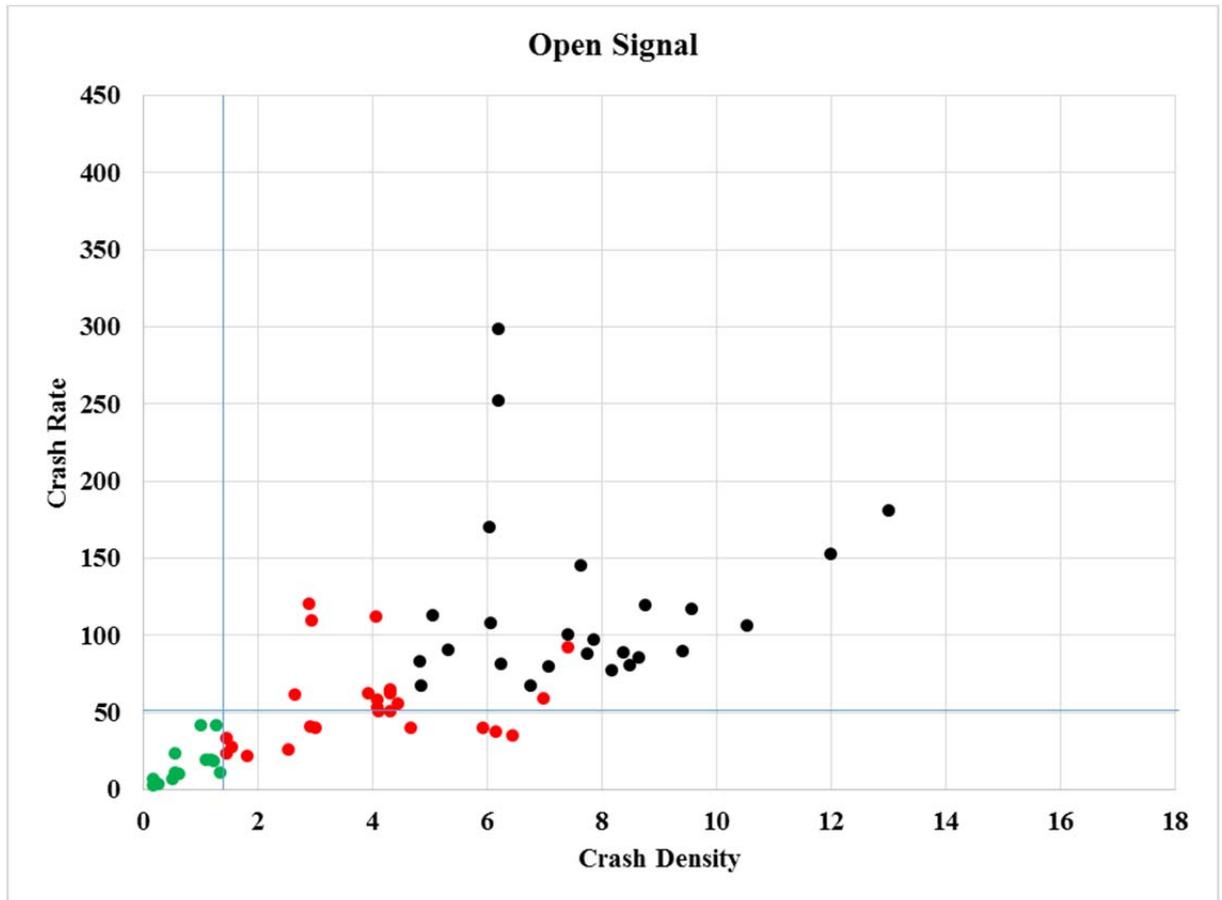
** Significant change(s) were applied to the intersection between 1 January 2011 and 1 December 2016, that could be road safety related treatment(s) other than painting, and/or traffic related structure overhaul.

Of the 16 intersections judged to be the least safe (Table 5), the two highest ranked intersections had KSI metrics of above 7.

3.4 Intersections with traffic signals and open speed environment

3.4.1 Road Trauma Risk Analysis

Figure 10: Road Trauma Risk: Intersections with traffic signals and open speed environment

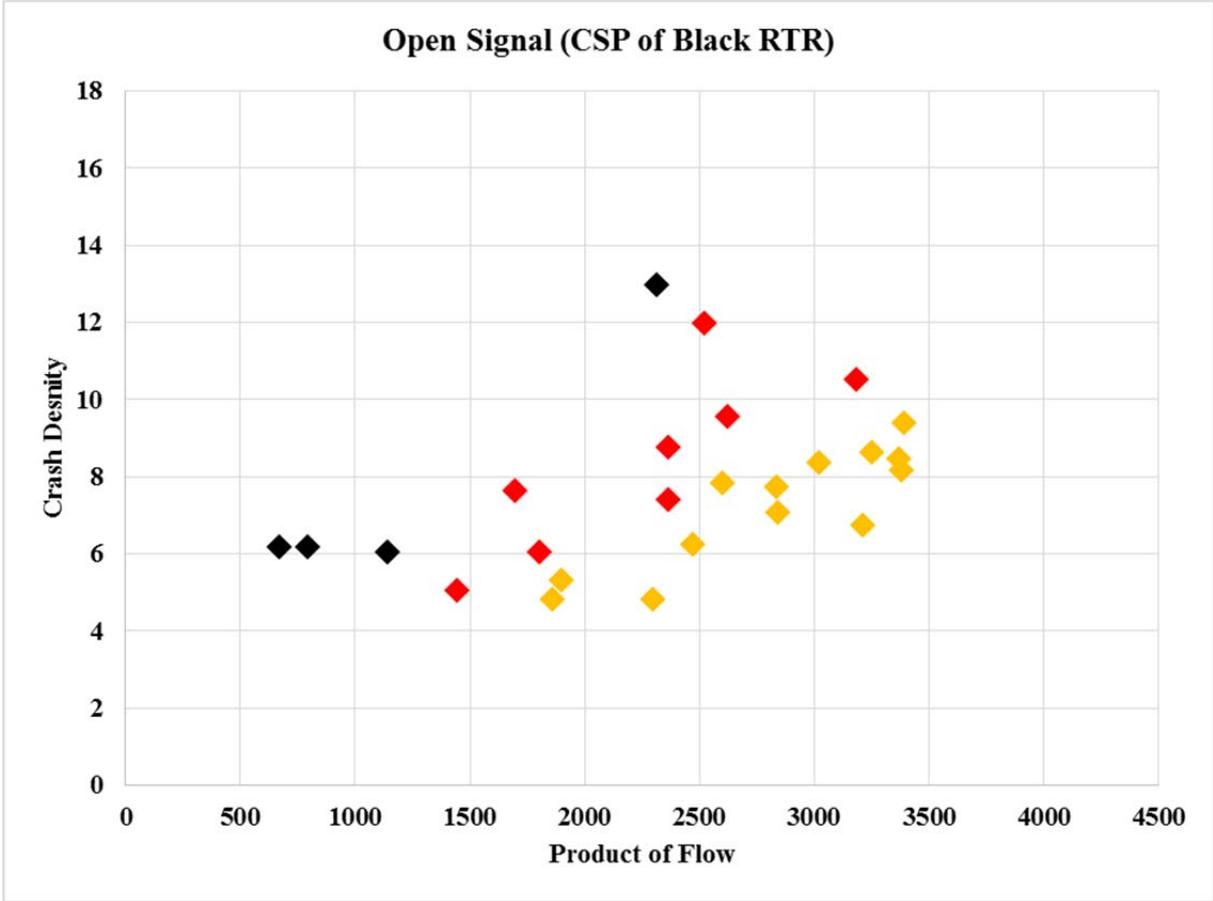


A relatively high number of intersections ($n=63$, 6.3%) with traffic signals in an open speed environment had at least one casualty crash compared to other intersections in the open speed environment categories. The RTR ratings for this group of crashes are shown in Figure 10. A total of 25 (40%) intersections fell in the black and 25 (40%) fell in the red quadrant. Several of the intersections in the black quadrant had high crash rates (in excess of 150) with moderately high crash density, while several had very high crash density but moderately high crash rates. Crash density for intersections in the black quadrant ranged from 5 to 13, while crash rates ranged from 68 to 298 (Table 6).

Table 6 details the 25 intersections which were classified as high risk crashes. Five of these were three-way intersections, 19 were four-way intersections and the remainder were of unknown type.

3.4.2 Comparative Safety Performance Analysis

Figure 11: Comparative Safety Performance: Intersections with traffic signals and open speed environment



Of the 25 intersections which were considered high risk, all were categorised in the black quadrant (Figure 11). Four (16%) intersections were in CSP category V, eight (32%) were in CSP IV and thirteen (52%) were in CSP III. Those intersections in the highest CSP category of V (least safe intersections) had lower products of flow (range: 669-2314) with crash density ranging from 6 to 13 (Table 6).

3.4.3 Ranking of high risk intersections

Table 6: Ranking of high risk intersections with traffic signals and open speed environment

| Intersection number | Intersection Description | Product of Flow | Crash Rate | Crash Rate Category | Crash Density Category | RTR ¹ Quadrant | CSP ² Category | KSI Metric | Intersection rank |
|---------------------|--|-----------------|------------|---------------------|------------------------|---------------------------|---------------------------|------------|-------------------|
| 14261 | REID HWY & BEECHBORO RD NORTH | 2314.13 | 180.89 | High | High | Black | V | 12.99 | 1 |
| 14184 | ARMADALE RD & WARTON RD | 790.82 | 252.34 | High | High | Black | V | 6.19 | 2** |
| 141661 | TONKIN HWY & CHAMPION DR | 668.56 | 298.38 | High | High | Black | V | 6.19 | 3** |
| 14902 | ROE HWY & MORRISON RD & MORRISON RD | 1141.09 | 170.47 | High | High | Black | V | 6.03 | 4 |
| 14241 | TONKIN HWY & BENARA RD | 2522.55 | 153.09 | High | High | Black | IV | 11.98 | 5** |
| 4543 | TONKIN HWY & HORRIE MILLER DR & KEWDALE RD | 3185.22 | 106.62 | High | High | Black | IV | 10.54 | 6** |
| 4552 | ROE HWY & KALAMUNDA RD | 2622.48 | 117.37 | High | High | Black | IV | 9.55 | 7 |
| 4143 | PATTERSON RD & ENNIS AV | 2361.60 | 119.53 | High | High | Black | IV | 8.76 | 8 |
| 77885 | REID HWY & ALTONE RD | 1694.96 | 145.01 | High | High | Black | IV | 7.63 | 9 |
| 1544 | ENNIS AV & ROCKINGHAM STATION ACCESS RD & RAE RD | 2362.26 | 100.92 | Med-High | High | Black | IV | 7.40 | 10** |
| 10142 | ROCKINGHAM RD & ANKETELL RD | 1804.63 | 108.22 | High | High | Black | IV | 6.06 | 11 |
| 4019 | GREAT NORTHERN HWY & WEST SWAN RD | 1442.12 | 113.02 | High | High | Black | IV | 5.06 | 12 |
| 4546 | TONKIN HWY & HALE RD | 3388.85 | 89.50 | Med-High | High | Black | III | 9.41 | 13 |
| 13875 | WANNEROO RD & JOONDALUP DR | 3252.25 | 85.73 | Med-High | High | Black | III | 8.65 | 14 |
| 4547 | TONKIN HWY & WELSHPOOL RD EAST | 3369.90 | 81.12 | Med-High | High | Black | III | 8.48 | 15 |
| 14176 | REID HWY & MALAGA DR | 3023.79 | 89.20 | Med-High | High | Black | III | 8.37 | 16 |
| 4035 | WANNEROO RD & OCEAN REEF RD | 3380.48 | 77.88 | Med-High | High | Black | III | 8.17 | 17 |
| 13837 | ENNIS AV & ELANORA DR & GRANGE DR | 2602.14 | 97.22 | Med-High | High | Black | III | 7.85 | 18 |
| 60436 | MARMION AV & WHITFORDS AV | 2834.50 | 88.13 | Med-High | High | Black | III | 7.75 | 19 |

| | | | | | | | | | |
|--------|---|---------|-------|----------|------|-------|-----|------|----|
| 60446 | MARMION AV & OCEAN REEF RD | 2842.95 | 80.09 | Med-High | High | Black | III | 7.06 | 20 |
| 4121 | STOCK RD & SOUTH ST ENNIS AV & CARVIE ST & COUNCIL AV | 3211.45 | 67.77 | Med-High | High | Black | III | 6.75 | 21 |
| 13807 | TONKIN HWY & THOMAS RD | 2471.88 | 81.31 | Med-High | High | Black | III | 6.24 | 22 |
| 138650 | STOCK RD & BEELIAR DR | 1899.25 | 90.34 | Med-High | High | Black | III | 5.32 | 23 |
| 4116 | ROCKINGHAM RD & RUSSELL RD (WEST) | 2296.41 | 67.90 | Med-High | High | Black | III | 4.84 | 24 |
| 13935 | | 1856.45 | 83.68 | Med-High | High | Black | III | 4.82 | 25 |

¹RTR: Road Trauma Risk ²CSP: Comparative Safety Performance

* Minor change(s) were applied to the intersection between 1 January 2011 and 1 December 2016, such as painting or repainting of lines and/or arrows.

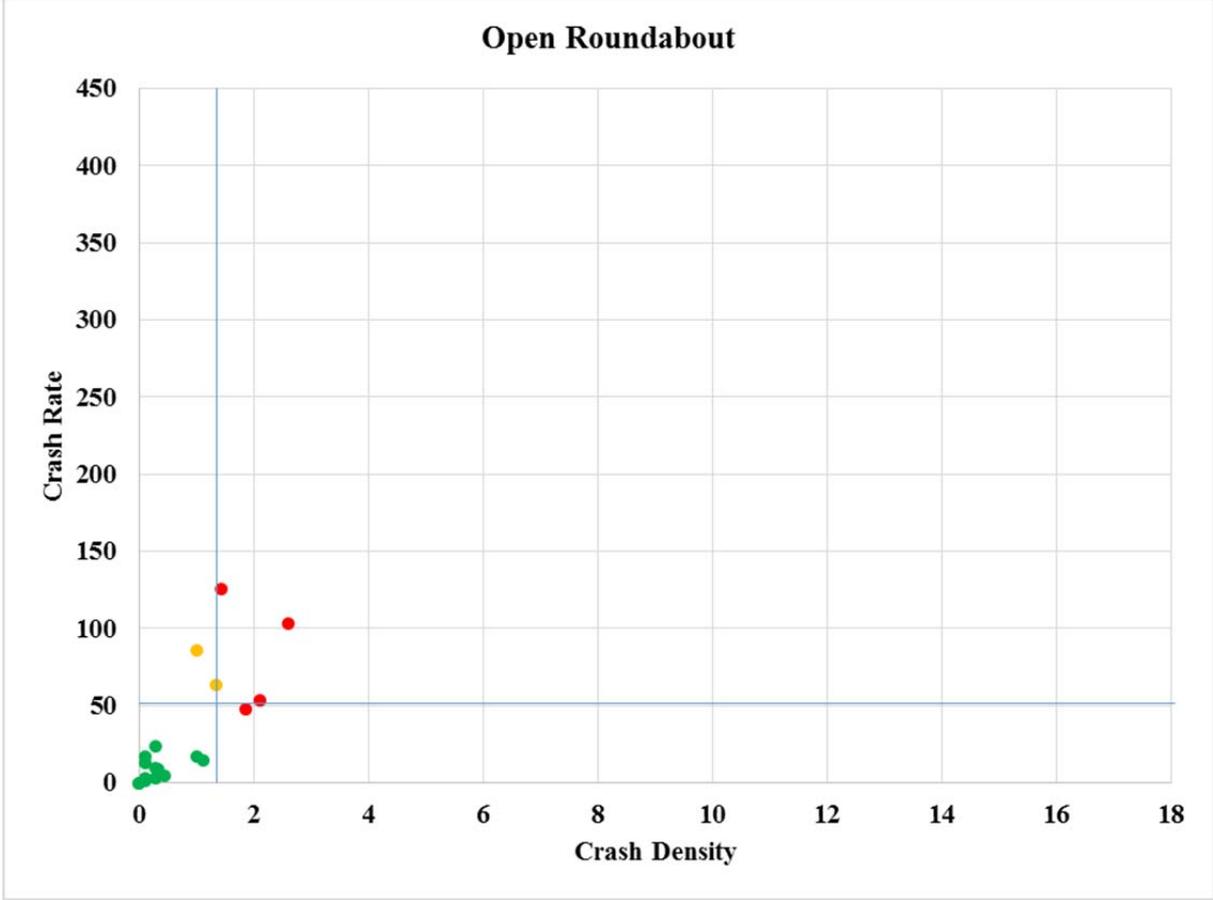
** Significant change(s) were applied to the intersection between 1 January 2011 and 1 December 2016, that could be road safety related treatment(s) other than painting, and/or traffic related structure overhaul.

Of the 25 intersections which were considered as high risk, 4 (16%) were also classified as having a CSP category of V (Table 6). These intersections were ranked highest. The intersection ranked first (intersection 14261, Reid Highway and Beechboro Road) had a much higher KSI metric (12.99) than the other three intersections with a CSP of V (KSI metrics of approximately 6).

3.5 Intersections with a roundabout and open speed environment

3.5.1 Road Trauma Risk Analysis

Figure 12: Road Trauma Risk: Intersections with a roundabout and open speed environment

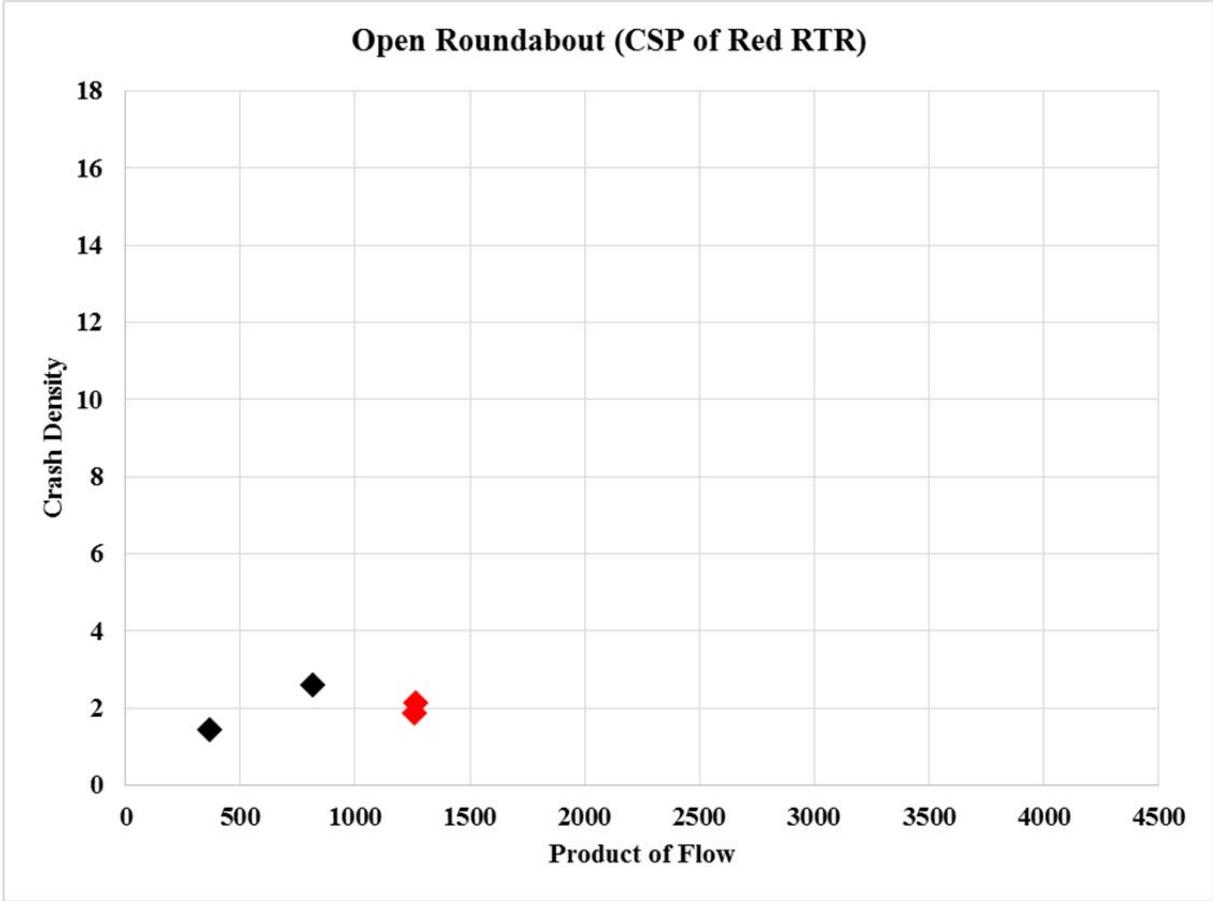


There were less casualty crashes which occurred in the Perth metro area that were a roundabout in an open speed environment (n=19, 1.9%) compared to other intersections in the open speed environment categories. The RTR matrix for this group of crashes is shown in Figure 12. There are no intersections which were classified in the black quadrant. Four (21%) intersections were in the red quadrant and two (10%) were in the orange quadrant. Crash rates and density in the red quadrant intersections were relatively low compared to other intersections in the open speed environment (Table 7) with crash rates ranging from 48 to 126, while crash density ranged from 1.4 to 2.6.

Of the four intersections which were considered high risk intersections, all were in the red quadrant (Table 7). Three of these were three-way intersections and the other was a four-way intersection.

3.5.2 Comparative Safety Performance Analysis

Figure 13: Comparative Safety Performance: Intersections with a roundabout and open speed environment



Of the four intersections considered high risk intersections, two were identified as CSP category V and two were CSP category IV. The CSPs categories are shown in Figure 13. All intersections in this category had products of flow below 1300 with crash density of less than 3 (Table 7). The two intersections in CSP category IV had lower products of flow (103 and 126) than the intersections in CSP category III (48 and 54).

3.5.3 Ranking of high risk intersections

Table 7: Ranking of high risk intersections with a roundabout and open speed environment

| Intersection number | Intersection Description | Product of Flow | Crash Rate | Crash Rate Category | Crash Density Category | RTR ¹ Quadrant | CSP ² Category | KSI Metric | Intersection rank |
|---------------------|---|-----------------|------------|---------------------|------------------------|---------------------------|---------------------------|------------|-------------------|
| 14796 | GREAT EASTERN HWY BYPASS & STIRLING CR | 813.68 | 103.42 | Med-High | Med-High | Red | V | 2.61 | 1 |
| 148903 | H410 & WELD ST | 367.51 | 125.66 | High | Med-High | Red | V | 1.43 | 2** |
| 148910 | H411 & ARMADALE RD (RT) | 1267.85 | 53.65 | Med-High | Med-High | Red | IV | 2.11 | 3** |
| 148909 | H411 & ARMADALE RD (LT) | 1260.27 | 47.72 | Med | Med-High | Red | IV | 1.87 | 4** |

¹RTR: Road Trauma Risk ²CSP: Comparative Safety Performance

* Minor change(s) were applied to the intersection between 1 January 2011 and 1 December 2016, such as painting or repainting of lines and/or arrows.

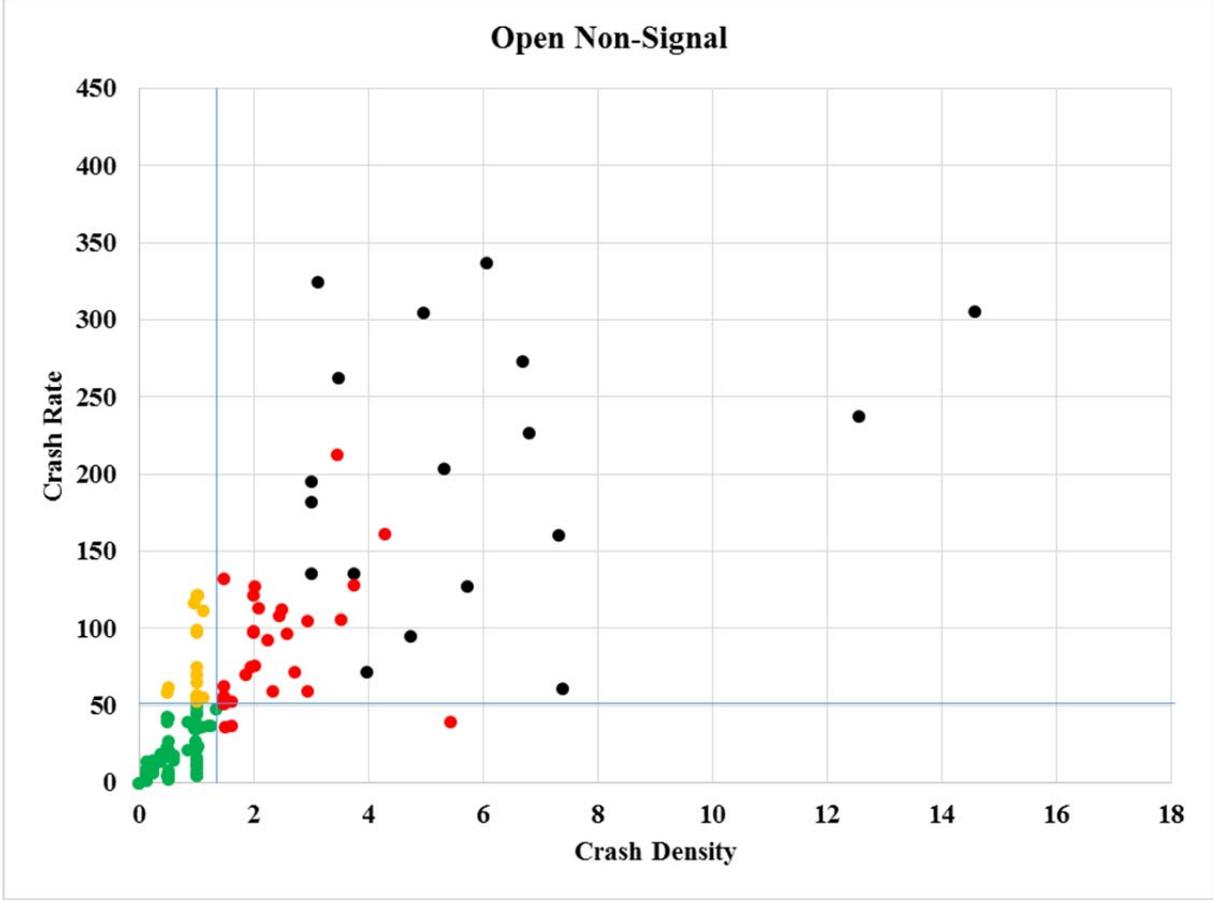
** Significant change(s) were applied to the intersection between 1 January 2011 and 1 December 2016, that could be road safety related treatment(s) other than painting, and/or traffic related structure overhaul.

All intersections selected as “least safe” in this category fell into the red quadrant (Table 7). The highest ranked intersection (intersection 14796, situated at Great Eastern Highway Bypass and Stirling Crescent) had a lower product of flow (814) than the third and fourth ranked intersections (1268 and 1260 respectively), but had the highest KSI metric of 2.6.

3.6 Intersections with no signals and open speed environment

3.6.1 Road Trauma Risk Analysis

Figure 14: Road Trauma Risk: Intersections with no signals and open speed environment

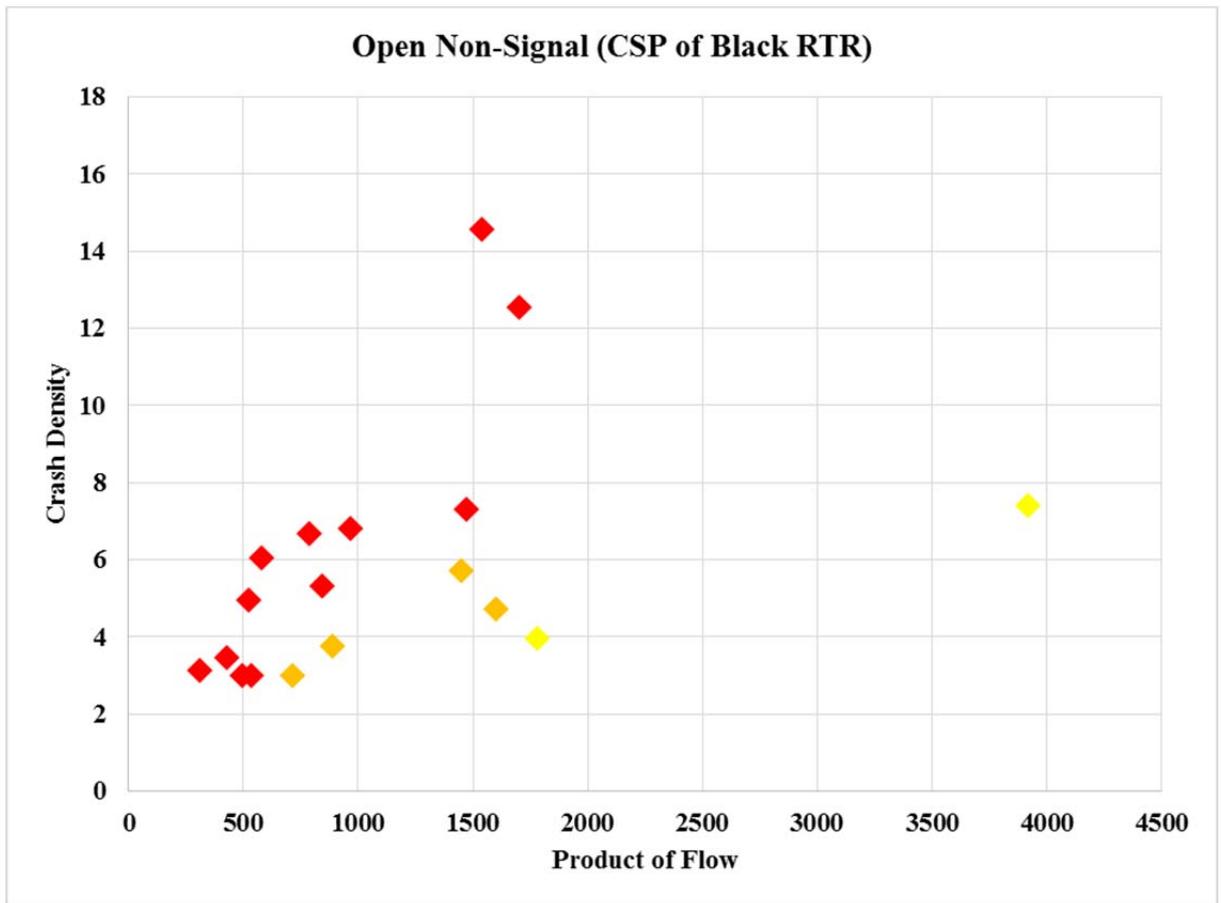


A total of 135 (14%) of all intersections were in an open speed environment and had no traffic control signals. Of these, 18 (13%) were in the black quadrant and 29 (21%) were in the red quadrant. The RTR ratings for intersections with no signals where a casualty crash occurred in an open speed environment are shown in Figure 14. Crash rates for intersections in the black quadrant were relatively high (range: 61-336) with lower crash density (range: 3-15) compared to other intersections in the open speed environment (Table 8).

A total of 18 intersections were considered high risk intersections (Table 8). All were categorised as having high crash density, with 3 categorised as having medium-high crash rate. The remainder were in the high crash rate category. Only one intersection was a four-way intersection, with 14 three-way intersections. The other intersections were of unknown type.

3.6.2 Comparative Safety Performance Analysis

Figure 15: Comparative Safety Performance: Intersections with no signals and open speed environment



A total of 18 intersections were considered high risk intersections, all falling in the black quadrant. Twelve (67%) of these were in CSP IV, four (22%) in CSP III and two (11%) in CSP II. The CSP categories are shown in Figure 15. Intersections in CSP IV (less safe intersections) tended to have higher crash rates (range: 161-336) than the intersections with lower CSP scores, and this higher risk group had crash density ranging from 3 to 15 (Table 8).

3.6.3 Ranking of high risk intersections

Table 8: Ranking of high risk intersections with no signals and open speed environment

| Intersection number | Intersection Description | Product of Flow | Crash Rate | Crash Rate Category | Crash Density Category | RTR ¹ Quadrant | CSP ² Category | KSI Metric | Intersection rank |
|---------------------|--|-----------------|------------|---------------------|------------------------|---------------------------|---------------------------|------------|-------------------|
| 138328 | ENNIS AV (NTH BND) & PORT KENNEDY DR | 1538.38 | 305.05 | High | High | Black | IV | 14.56 | 1** |
| 4549 | TONKIN HWY & GOSNELLS RD WEST | 1700.49 | 237.80 | High | High | Black | IV | 12.55 | 2** |
| 36346 | ARMADALE RD & EIGHTH RD | 1470.23 | 160.56 | High | High | Black | IV | 7.32 | 3* |
| 75571 | ENNIS AV & WILLMOTT DR | 967.98 | 226.54 | High | High | Black | IV | 6.80 | 4** |
| 4018 | GREAT NORTHERN HWY & RUTLAND RD | 789.65 | 272.74 | High | High | Black | IV | 6.68 | 5* |
| 54070 | KARGOTICH RD & THOMAS RD | 579.39 | 336.45 | High | High | Black | IV | 6.05 | 6** |
| 80578 | ENNIS AV & ROYAL PALM DR | 842.57 | 203.26 | High | High | Black | IV | 5.31 | 7 |
| 36770 | ARMADALE RD & GRIBBLE AV | 523.76 | 304.54 | High | High | Black | IV | 4.95 | 8 |
| 14934 | TOODYAY RD & CAMPERSIC RD | 428.26 | 261.88 | High | High | Black | IV | 3.48 | 9 |
| 15015 | GREAT EASTERN HWY & OLD NORTHAM RD | 310.12 | 324.44 | High | High | Black | IV | 3.12 | 10 |
| 15001 | GREAT EASTERN HWY & RAILWAY TCE WEST | 532.63 | 181.54 | High | High | Black | IV | 3.00 | 11 |
| 46412 | THOMAS RD & MEDINA AV | 495.38 | 195.20 | High | High | Black | IV | 3.00 | 12 |
| 60434 | MARMION AV & COOK AV | 1447.77 | 127.17 | High | High | Black | III | 5.71 | 13 |
| 60442 | MARMION AV & MULLALOO DR | 1602.14 | 95.01 | Med-High | High | Black | III | 4.72 | 14 |
| 60438 | MARMION AV & CORAL ST | 890.45 | 135.85 | High | High | Black | III | 3.75 | 15 |
| 14920 | GREAT NORTHERN HWY & WARBROOK RD | 712.84 | 135.65 | High | High | Black | III | 3.00 | 16 |
| 4545 | ROE HWY & H017 STH BOUND - ROE HWY OFF & ROE HWY ON - H017 STH BOUND | 3919.27 | 60.70 | Med-High | High | Black | II | 7.38 | 17 |
| 60424 | MARMION AV & SEACREST DR | 1781.85 | 71.62 | Med-High | High | Black | II | 3.96 | 18 |

¹RTR: Road Trauma Risk ²CSP: Comparative Safety Performance

* Minor change(s) were applied to the intersection between 1 January 2011 and 1 December 2016, such as painting or repainting of lines and/or arrows.

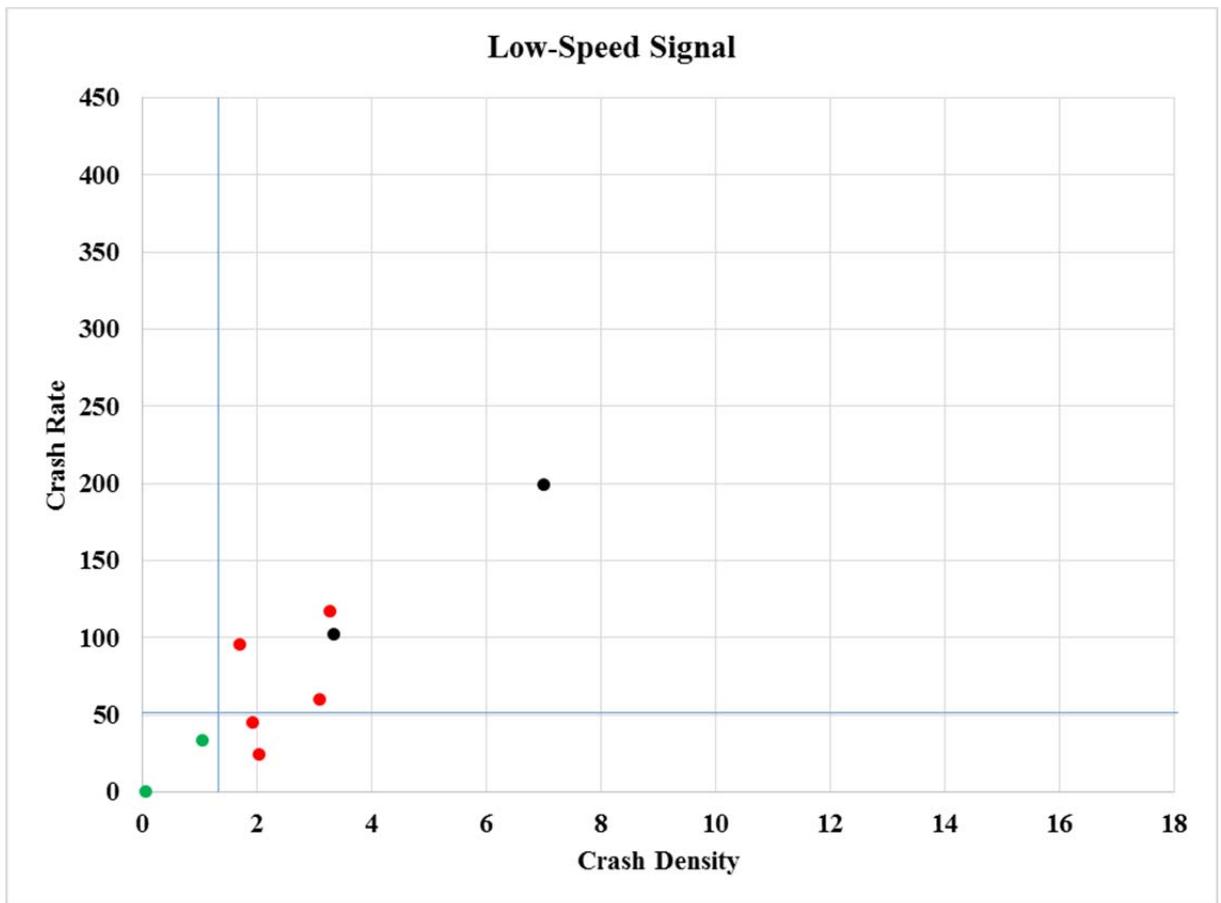
** Significant change(s) were applied to the intersection between 1 January 2011 and 1 December 2016, that could be road safety related treatment(s) other than painting, and/or traffic related structure overhaul.

All 18 intersections selected as “least safe” in this category were in the black quadrant, with the top 12 ranked intersections being in CSP category IV (Table 8). The top two ranked intersections had much higher KSI metrics than the other intersections (14.56 and 12.55, compared to KSI metrics of below 8 for all other intersections.)

3.7 Intersections with traffic signals and low-speed environment

3.7.1 Road Trauma Risk Analysis

Figure 16: Road Trauma Risk: Intersections with traffic signals and low-speed environment



Only nine (0.90%) of casualty crash intersections had traffic signals and occurred in a low-speed environment. The RTR for intersections in this category are shown in Figure 16. Two fell in the black quadrant, five in the red quadrant and two in the green quadrant. There was a large range of crash rates (range: 25-199) and crash density (range: 2-7) in the intersections in the black and red quadrants (Table 9), with one outlier with a crash density of 7 and a crash rate of 199 (intersection 50569, Wellington Street and George Street).

Seven intersections were categorised as high serious intersections – two in the black quadrant and five in the red quadrant (Table 9). Four of the intersections were three-way intersections and the remaining three were of unknown type.

3.7.2 Comparative Safety Performance Analysis

Figure 17: Comparative Safety Performance: Intersections with traffic signals and low-speed environment in the black quadrant

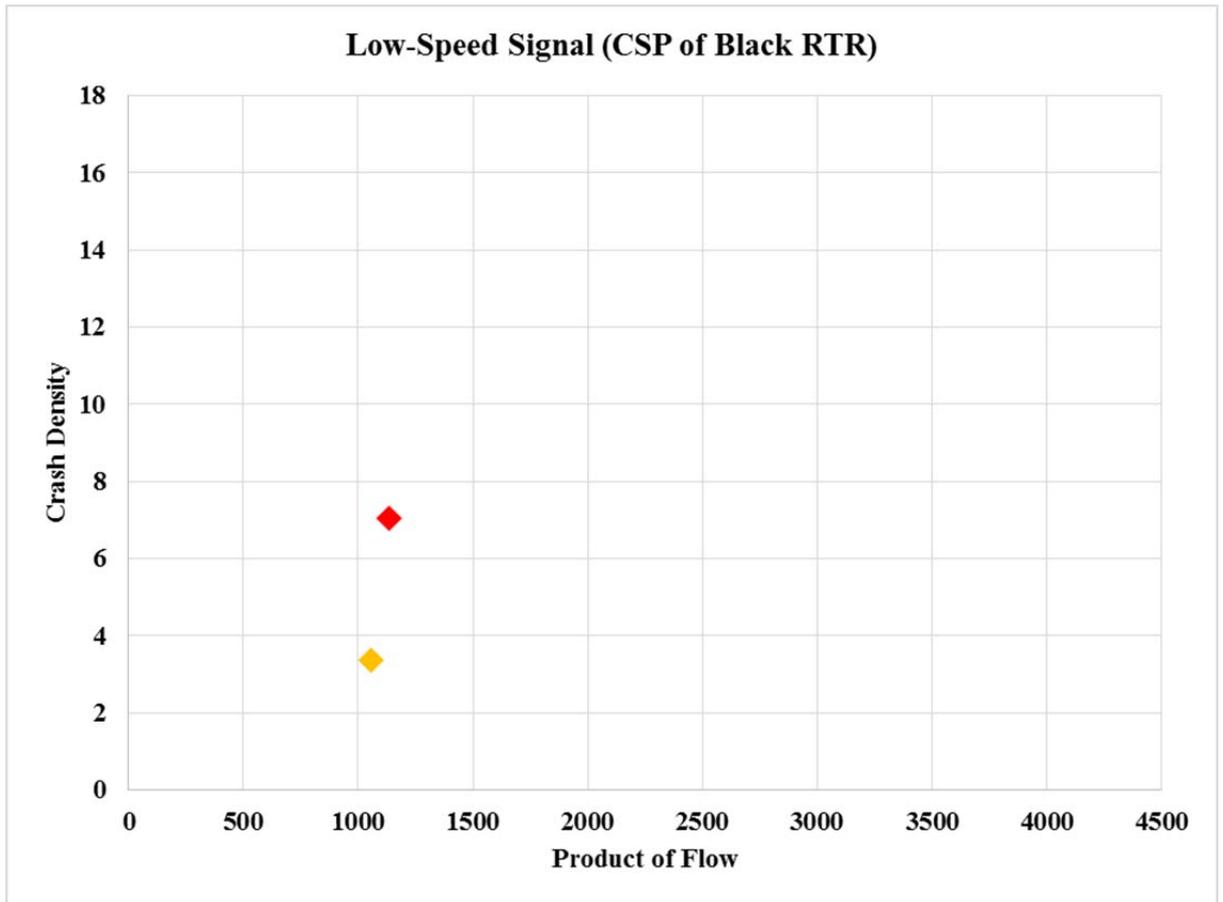
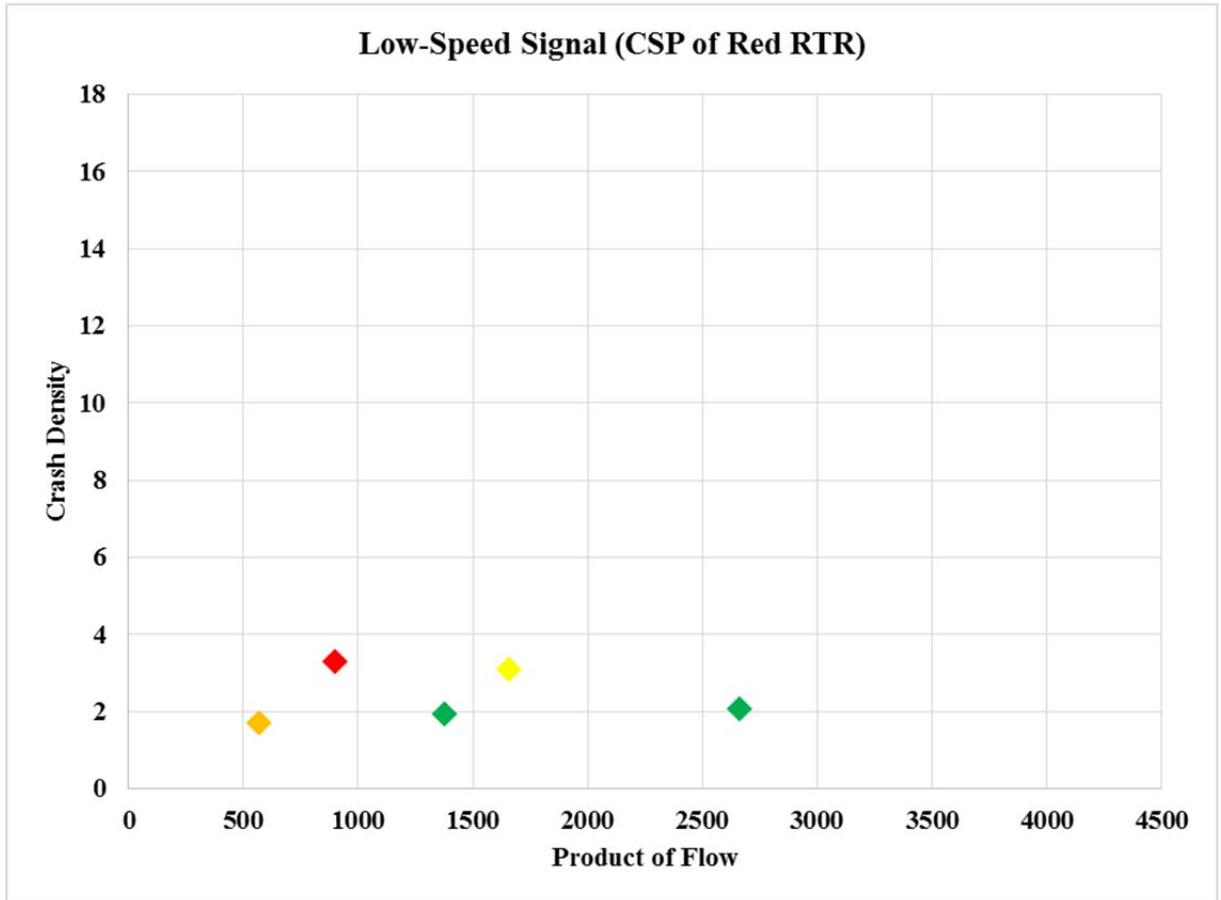


Figure 18: Comparative Safety Performance: Intersections with traffic signals and low-speed environment in the red quadrant



Of the seven intersections that were considered high risk intersections, two were CSP IV, two were CSP III, one was CSP II and two were CSP I. The CSP categories of these intersections are shown in Figure 17 (black quadrant) and 18 (red quadrant). The two intersections in the highest CSP category IV (least safe intersections) had crash density of 3 and 7, and products of flow of 899 and 1137 (Table 9).

3.7.3 Ranking of high risk intersections

Table 9: Ranking of high risk intersections with traffic signals and low-speed environment

| Intersection number | Intersection Description | Product of Flow | Crash Rate | Crash Rate Category | Crash Density Category | RTR ¹ Quadrant | CSP ² Category | KSI Metric | Intersection rank |
|---------------------|---|-----------------|------------|---------------------|------------------------|---------------------------|---------------------------|------------|-------------------|
| 50569 | WELLINGTON ST 124 0116 - H016 & WELLINGTON ST & GEORGE ST | 1,137.22 | 198.78 | High | High | Black | IV | 7.01 | 1 |
| 50544 | MURRAY ST ON - H016 STH BOUND & GEORGE ST & MURRAY ST | 1,058.71 | 102.20 | Med-High | High | Black | III | 3.36 | 2 |
| 50545 | ELDER ST LINK TO H521 & MURRAY ST & ELDER ST | 899.43 | 117.43 | High | High | Red | IV | 3.28 | 3** |
| 4987 | H015 STH BOUND - CRANFORD AV & CRANFORD AV | 571.55 | 95.56 | Med-High | Med-High | Red | III | 1.69 | 4 |
| 50567 | H528 - WELLINGTON ST 124 0116 & WELLINGTON ST & ELDER ST | 1,660.75 | 59.89 | Med-High | High | Red | II | 3.09 | 5 |
| 14291 | GREAT EASTERN HWY & EPSOM AV | 2,663.02 | 24.69 | Low-Med | Med-High | Red | I | 2.04 | 6** |
| 4515 | H016 NTH BOUND - HAY ST OFF & HAY ST & GEORGE ST | 1,379.15 | 44.87 | Med | Med-High | Red | I | 1.92 | 7 |

¹RTR: Road Trauma Risk ²CSP: Comparative Safety Performance

* Minor change(s) were applied to the intersection between 1 January 2011 and 1 December 2016, such as painting or repainting of lines and/or arrows.

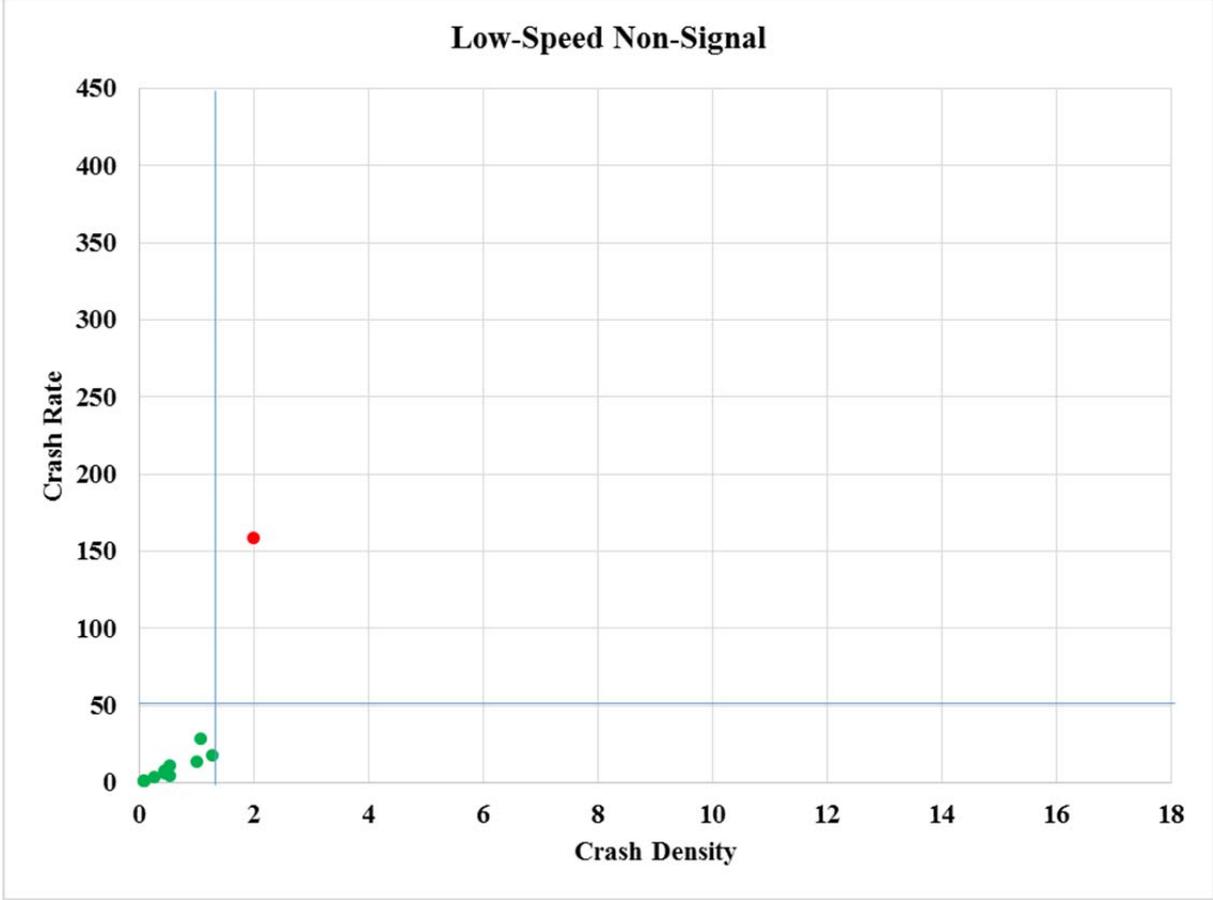
** Significant change(s) were applied to the intersection between 1 January 2011 and 1 December 2016, that could be road safety related treatment(s) other than painting, and/or traffic related structure overhaul.

The two highest ranked intersections were in the black quadrant with the first ranked intersection falling into CSP IV (Table 9). This intersection had a KSI metric of 7, with other ranked intersections having KSI metrics of below 3.5. The products of flow of these intersections were relatively high compared to other intersection types, indicating busier intersections. Most of the high intersections were situated in the CBD, with the top three ranked intersections involving Murray Street.

3.8 Intersections with no traffic signals and low-speed environment

3.8.1 Road Trauma Risk Analysis

Figure 19: Road Trauma Risk: Intersections with no traffic signals and low-speed environment

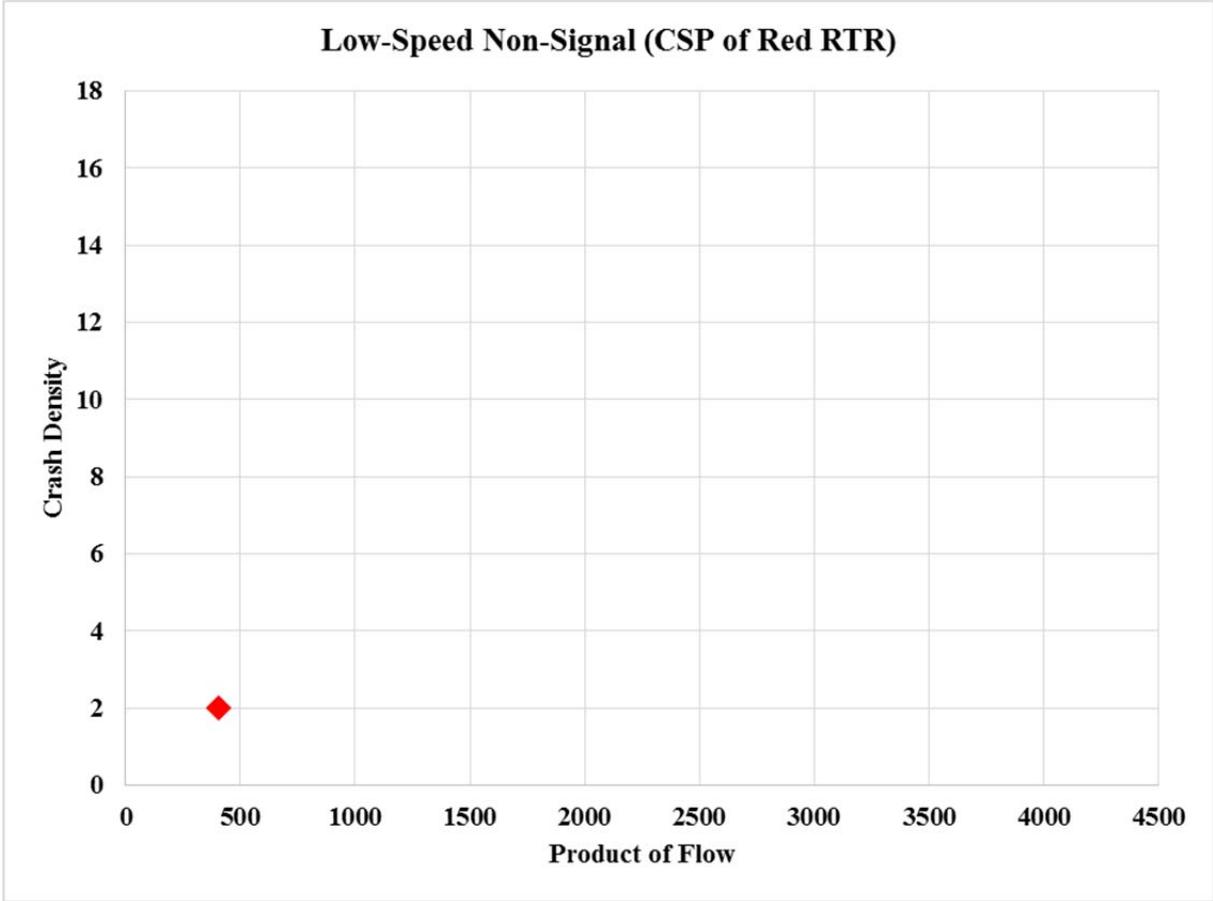


Twelve casualty intersections with no traffic signals in a low-speed environment were examined (1.2% of all intersections analysed). All fell in the green quadrant (Figure 19) with the exception of one intersection which was classified as being in the red quadrant. This intersection had a crash rate of 158 and a crash density of 2 (Table 10).

Only one intersection was considered a high risk intersection (Table 10). The intersection was in the high crash rate category but the medium-high crash density category, placing it in the red quadrant. It was a three-way intersection.

3.8.2 Comparative Safety Performance Analysis

Figure 20: Comparative Safety Performance: Intersections with no traffic signals and low-speed environment



The CSP category of the single high risk intersection is shown in Figure 20. The only intersection considered in the analysis had a CSP category of IV with a crash density of 2 and low product of flow of 407.

3.8.3 Ranking of high risk intersections

Table 10: Ranking of high risk intersections with no traffic signals and low-speed environment

| Intersection number | Intersection Description | Product of Flow | Crash Rate | Crash Rate Category | Crash Density Category | RTR ¹ Quadrant | CSP ² Category | KSI Metric | Intersection rank |
|---------------------|--|-----------------|------------|---------------------|------------------------|---------------------------|---------------------------|------------|-------------------|
| 4332 | H016 NTH BOUND - MARKET ST OFF & MARKET ST | 407.41 | 158.23 | High | Med-High | Red | IV | 2.00 | 1** |

¹RTR: Road Trauma Risk ²CSP: Comparative Safety Performance

* Minor change(s) were applied to the intersection between 1 January 2011 and 1 December 2016, such as painting or repainting of lines and/or arrows.

** Significant change(s) were applied to the intersection between 1 January 2011 and 1 December 2016, that could be road safety related treatment(s) other than painting, and/or traffic related structure overhaul.

Since only one intersection was considered as a high risk intersection, it was ranked first (Table 10). It had a relatively low product of flow compared to other top ranked intersections of other types.

3.9 Comparison of results in different intersection types

A Road Trauma Risk Analysis was undertaken on 996 Perth metropolitan casualty crash intersections, by intersection type (speed environment and traffic control type). The number of intersections analysed for each intersection type varied from 425 (43%, built-up non-signal intersections) to 9 (1.0%, low-speed intersections with traffic signals). There were no low-speed casualty intersections with roundabouts. Approximately 11% and 32% of all types of intersections where a casualty crash occurred fell in the black and red quadrants respectively. However, open and low-speed intersections with traffic signals had a much higher proportions of intersections which fell in the black quadrant (40% and 22% respectively).

The high crash risk intersections were selected using the results from the RTR Analysis. Certain intersection types, with a high proportion of intersections falling in the black quadrant, contained larger numbers of high risk intersections: specifically built-up intersections with and without traffic signals, and open speed intersections with and without traffic signals. All other intersection types only contained intersections in the red quadrant, with the exception of low-speed intersections with traffic signals which contained a mix of black and red quadrant intersections. None of the intersections with roundabouts fell in the black quadrant.

A Comparative Safety Performance Analysis was used to analysis the high crash risk intersections by intersection type. Only three intersection types contained intersections which fell in both the RTR black quadrant and the top (least safe) CSP category V: built-up intersections with and without traffic signals and open speed intersections with traffic signals. The other non-roundabout intersection types had intersections in CSP category IV.

The third stage of the ranking process simply used the KSI metric (collective risk or crash density) to create a final ranked list of the high crash risk intersections. The final rankings demonstrated that the top-ranked intersection with the highest KSI metric was in the built-up speed environment with traffic signals, followed by the top ranked intersection in the open-speed environment with no traffic signals, and then the top intersection in the built-up speed environment with no traffic signals. There were no

casualty intersections in the low-speed environment with a roundabout. The next lowest KSI metric was the top-ranked low-speed intersection with no traffic signals.

4. DISCUSSION

This report examined and ranked the crash risk of intersections in metropolitan Perth by intersection type. Intersections were grouped by speed environment (built-up, open or low-speed) and control type (traffic signal, roundabout or no traffic signal). A three-stage approach was used to rank the highest crash risk intersections relative to other intersections of a similar type; Road Trauma Risk Analysis was used to create a shortlist of high crash risk intersections, then Comparative Safety Performance Analysis was used to further assess intersections within the same RTR quadrants, and finally these intersections were ranked from the highest KSI metric to the lowest.

The RTR analysis found that intersections with and without traffic signals, and open speed intersections with and without traffic signals contained more high crash risk intersections than other intersection types. Only three of these intersection types contained intersections in both the RTR black quadrant and CSP category V: built-up intersections with and without traffic signals, and open speed intersections with traffic signals.

Both the Road Trauma Risk Analysis and the Comparative Safety Performance Analysis used crash density (KSI metric or collective risk) and compared intersections based on speed environment and control type. However, the RTR Analysis examined the change in crash rate (vertical axis) relative to the change in crash density (horizontal axis); that is, the change in personal risk relative to the change in collective risk. The CSP analysis examined the change in crash density (vertical axis) relative to the change in product of flow (horizontal axis); that is, the change in collective risk relative to exposure to traffic and potential conflicts at the intersection. Thus in the CSP Analysis, exposure to traffic is directly examined, unlike the RTR Analysis where it is included merely as a denominator of crash rate. Furthermore, the CSP Analysis directly compared the relative safety performance of similar intersections, by using percentiles of safety performance. Using the two analytical methods to assess risk of intersections allows the comparison of collective risk with both personal risk and traffic exposure to obtain a more accurate assessment of intersection risk, which is a strength of the study.

The top-ranked intersections with the highest KSI metric were in the built-up speed environment with traffic signals, in the open-speed environment with no traffic signals,

and then in the built-up speed environment with no traffic signals. Using the KSI metric effectively uses the absolute number of injury crashes, without reference to traffic exposure, to rank high crash risk intersections. Personal risk (crash rate), which is used in the RTR Analysis, may be reduced by modifying personal responses to traffic conditions, which is challenging to implement at a population-level. Collective risk (the KSI metric) may be lowered by improvements to infrastructure (KiwiRAP), and is therefore a useful measure of changes in population-level road safety. At a state level, therefore, the use of KSI metric as the tool to create the final ranking of high crash risk intersections is appropriate because resources need to be allocated optimally to minimise the number of road crashes at intersections.

A further tool which can be used to compare intersection safety across the metropolitan area is mapping the location of intersections by RTR and CSP. The locations for higher RTR intersections tended to differ from locations of higher CSP intersections across the examined built-up area intersections which were mapped.

Some limitations of this project need to be noted. The annual average daily traffic (AADT) was used in the RTR and CSP analyses as a measure of traffic volume. While this is the best available measure of traffic volume at a given location, it does not represent the variability and distribution of traffic volume over different hours and days of the week. For example, two locations could have the same AADT but one intersection might experience a steady, but low traffic flow throughout the day, while the other might experience little traffic for most of the day but heavy traffic flow at certain times of the day, leading to a higher opportunity for conflict during these time periods. To account for this, future analyses could classify intersections by their “weekly traffic flow pattern” with categories such as “weekdays constant and weekend low”, “weekdays peak hours heavy and weekend low” and so on. However, as AADT data is difficult to obtain, this may not be feasible at present, but is worth further investigation in the future. Furthermore, AADT data was missing for some intersections for 2015 and so previous years’ data were used to estimate the missing AADT data. This may have led to some inaccuracies in crash rate estimation. AADT data was used for 2015 to calculate the crash rates, although crash data was used from 2011 to 2015. At certain intersections, traffic flow may have changed considerably between 2011 and 2015, leading to potentially misleading estimates of crash rates for these intersections.

Intersections were also categorised and then analysed by speed environment. However, in some cases, these may have changed over the study period, leading to misclassification of a small number of intersections. However these limitations would affect relatively few intersections so are unlikely to alter the results substantially.

5. RECOMMENDATIONS

5.1 Recommendations for future work

Because percentile cut-off values were not available by crash type (right angle, right turn through, rear end and other crash types), the Road Trauma Risk Analysis, the Comparative Safety Analysis and the ranking by KSI metric were only undertaken by intersection control type and speed environment. An analysis by crash type would be helpful both in assessing the crash risk of intersections, and for planning more focused and appropriate interventions (including engineering treatments) to intersections.

This report trialed the use of simple maps to explore the relative positions of built-up intersections by RTR and CSP category, as suggested in the New Zealand Transport Agency's *High Risk Intersections Guide* (2013). This could be extended to mapping all intersections with high crash rates and crash density, and measuring hot spots and clustering of high risk intersections across the metropolitan area (and potentially in regional and remote parts of Western Australia.)

5.2 Recommendations for intersection safety improvements

The three-stage process does not provide information on the optimal allocation of resources, by location and treatment type, to achieve the greatest improvement to road safety. However, by using the highest risk intersections identified in this report and their relative KSI metrics, decisions could be made on the selection intersections for resource allocation to maximise road safety gains.

Prior to choosing intersection treatments, site inspections of high risk intersections with similar CSP categories and KSI metrics should be conducted to: i) compare intersections, and ii) assess the intersections for potential treatments.

Candappa and colleagues (2013) developed a taxonomy based on their literature review of driver errors leading to KSI crashes, and road design features which could minimise these errors. For each intersection control type and crash type (right angle, right through, side swipe, hit object, rear end, and hit pedestrian), the authors examined a range of driver errors (including attention, distraction, excessive speed and poor gap selection as well as other errors) and the following potential intersection treatments:

1. Convert to a roundabout

2. Speed cushions
3. Increase signal timing
4. Ban right hand turn movements
5. Vary speed limits according to time of day

For each driver error category and crash type, each intersection treatment was rated as either a possible solution, not a possible solution or not applicable. Each intersection with a high RTR (black, and, in some cases, red quadrants) and a high CSP score (categories IV and V) can be linked with candidate possible solutions using this taxonomy (p. 51-60 Devlin et al., 2011).

5.3 Conclusion

The three-stage approach of the RTR and the CSP analysis as well as the ranking by KSI metric provides a method of prioritising high risk intersections by intersection type. Three intersection types were highlighted as having the highest KSI metrics overall: intersections in the built-up speed environment with traffic signals, in the open-speed environment with no traffic signals, and in the built-up speed environment with no traffic signals. These results can be used to target the highest crash risk intersections for safety treatments.

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7. APPENDIX

Table 11: Thresholds for categories of crash density and crash rate by intersection type³

| Comparative Performance | | Percentile Band | Speed Environment | Traffic Signals | Roundabout | No Traffic Signals |
|-------------------------|----------------|-----------------|----------------------------|---------------------|---------------------|--------------------|
| V | Extremely poor | 90 to 100th | Built-Up Speed Environment | Greater than 103.11 | Greater than 137.28 | Greater than 116.4 |
| IV | Very poor | 70 to 90th | | 62.00 to 103.11 | 49.96 to 137.28 | 46.94 to 116.4 |
| III | Poor | 50 to 70th | | 41.63 to 62.00 | 33.34 to 49.96 | 24.99 to 46.94 |
| II | Adequate | 30 to 50th | | 26.98 to 41.63 | 12.70 to 33.34 | 10.28 to 24.99 |
| I | Good | 0 to 30th | | Less than 26.98 | Less than 12.70 | Less than 10.28 |

| Comparative Performance | | Percentile Band | Speed Environment | Traffic Signals | Roundabout | No Traffic Signals |
|-------------------------|----------------|-----------------|------------------------|---------------------|--------------------|---------------------|
| V | Extremely poor | 90 to 100th | Open Speed Environment | Greater than 155.45 | Greater than 97.34 | Greater than 361.38 |
| IV | Very poor | 70 to 90th | | 99.92 to 155.45 | 31.59 to 97.34 | 146.41 to 361.38 |
| III | Poor | 50 to 70th | | 61.48 to 99.92 | 28.25 to 31.59 | 74.31 to 146.41 |
| II | Adequate | 30 to 50th | | 36.00 to 61.48 | 21.75 to 28.25 | 37.68 to 74.31 |
| I | Good | 0 to 30th | | Less than 36.00 | Less than 21.75 | Less than 37.68 |

| Comparative Performance | | Percentile Band | Speed Environment | Traffic Signals | Roundabout | No Traffic Signals |
|-------------------------|----------------|-----------------|-----------------------|---------------------|--|---------------------|
| V | Extremely poor | 90 to 100th | Low-Speed Environment | Greater than 252.46 | No cut-offs provided by Main Roads Western Australia due to low number of such intersections | Greater than 289.36 |
| IV | Very poor | 70 to 90th | | 104.00 to 252.46 | | 63.11 to 289.36 |
| III | Poor | 50 to 70th | | 68.87 to 104.00 | | 23.45 to 63.11 |
| II | Adequate | 30 to 50th | | 45.70 to 68.87 | | 5.95 to 23.45 |
| I | Good | 0 to 30th | | Less than 45.70 | | Less than 5.95 |

³ Thresholds are percentile cut-offs provided by Main Roads Western Australia

Table 12: All casualty intersections in the Perth metropolitan area used in the analysis

| Intersection type | Intersection number | Intersection Description | Intersection type | Product of Flow | Crash Rate | Crash Rate Category | Crash Density Category | RTR¹ Quadrant |
|--------------------------|----------------------------|--|--------------------------|------------------------|-------------------|----------------------------|-------------------------------|---------------------------------|
| Built-Up Signal | 14275 | GUILDFORD RD & H017 STH BOUND ON & OFF RAMPS | Unknown | 3425.13 | 155.74 | High | High | Black |
| Built-Up Signal | 4061 | ARMADALE RD & NICHOLSON RD | Unknown | 1940.28 | 211.94 | High | High | Black |
| Built-Up Signal | 50781 | SOUTHPORT ST & CAMBRIDGE ST | Unknown | 3524.70 | 113.63 | High | High | Black |
| Built-Up Signal | 39039 | FRANCISCO ST & ORRONG RD & FRANCISCO PL | Four-way | 3329.14 | 104.13 | Med-High | High | Black |
| Built-Up Signal | 3642 | REID HWY & REID HWY - MITCHELL FWY STH ON & H016 STH BOUND - REID HWY OFF & BALC | Three-way | 2904.69 | 116.73 | High | High | Black |
| Built-Up Signal | 14185 | ALBANY HWY (END DUAL) & DUNCAN ST | Three-way | 847.88 | 393.72 | High | High | Black |
| Built-Up Signal | 4347 | HUTTON ST ON - H016 STH BOUND & HUTTON ST & H016 STH BOUND - HUTTON ST OFF | Unknown | 1764.45 | 151.58 | High | High | Black |
| Built-Up Signal | 13882 | H016 NTH BND - WHITFORDS AV OFF & WHITFORDS AV & WHITFORDS AV OFF - H016 NTH BND | Unknown | 1746.19 | 152.63 | High | High | Black |
| Built-Up Signal | 14753 | ALBANY HWY & BURSLEM DR | Three-way | 2030.19 | 126.27 | High | High | Black |
| Built-Up Signal | 81636 | MCDOWELL ST & ORRONG RD | Four-way | 1382.65 | 179.01 | High | High | Black |
| Built-Up Signal | 168405 | H016 NTH BND END & BURNS BEACH RD | Three-way | 984.04 | 175.76 | High | High | Black |
| Built-Up Signal | 14845 | ALBANY HWY & DENNY AV | Three-way | 1075.08 | 145.65 | High | High | Black |

| | | | | | | | | |
|-----------------|--------|--|-----------|---------|--------|----------|------|-------|
| Built-Up Signal | 82815 | ALBANY HWY (END DUAL) & MAIN ST | Three-way | 706.74 | 212.69 | High | High | Black |
| Built-Up Signal | 14786 | ROE HWY & BERKSHIRE RD | Three-way | 1084.13 | 133.33 | High | High | Black |
| Built-Up Signal | 12315 | ARMADALE RD & TAPPER RD & VERDE DR | Four-way | 1297.60 | 110.84 | High | High | Black |
| Built-Up Signal | 119141 | REID HWY & OKELY RD (NORTH) | Three-way | 1334.46 | 103.86 | Med-High | High | Black |
| Built-Up Signal | 119092 | KWINANA FWY NTH - RUSSELL RD & RUSSELL RD & RUSSELL RD - KWINANA FWY NTH | Unknown | 513.20 | 250.24 | High | High | Black |
| Built-Up Signal | 14121 | CANNING HWY & HENLEY ST | Three-way | 1160.57 | 110.41 | High | High | Black |
| Built-Up Signal | 50639 | EAST PDE - LORD ST & LORD ST & NEWCASTLE ST | Three-way | 1168.34 | 105.11 | Med-High | High | Black |
| Built-Up Signal | 77668 | REID HWY & WEST SWAN RD | Four-way | 3109.87 | 99.56 | Med-High | High | Black |
| Built-Up Signal | 4147 | GREAT NORTHERN HWY & ROE HWY & GREAT NORTHERN HWY & REID HWY | Four-way | 3165.27 | 93.42 | Med-High | High | Black |
| Built-Up Signal | 4336 | WANNEROO RD & NEWCASTLE ST & CHARLES ST ON - H016 STH BOUND & H016 NTH BOUND - C | Four-way | 2666.58 | 95.56 | Med-High | High | Black |
| Built-Up Signal | 55048 | KARRINYUP - MORLEY HWY & WANNEROO RD | Four-way | 3085.44 | 80.76 | Med-High | High | Black |
| Built-Up Signal | 55516 | KARRINYUP - MORLEY HWY & FLINDERS ST | Four-way | 2996.15 | 78.79 | Med-High | High | Black |
| Built-Up Signal | 38822 | ORRONG RD & ARCHER ST | Three-way | 2731.93 | 85.31 | Med-High | High | Black |
| Built-Up Signal | 50690 | WANNEROO RD & GREEN ST & WALCOTT ST | Three-way | 2874.66 | 79.39 | Med-High | High | Black |
| Built-Up Signal | 4160 | GUILDFORD RD & GARRATT RD | Four-way | 3119.15 | 72.45 | Med-High | High | Black |
| Built-Up Signal | 14106 | SOUTH ST & H015 STH BOUND - SOUTH ST WEST | Three-way | 2577.70 | 81.10 | Med-High | High | Black |

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|-----------------|--------|---|-----------|---------|--------|----------|------|-------|
| Built-Up Signal | 14898 | ROE HWY & TOODYAY RD & TOODYAY RD | Four-way | 2878.37 | 62.87 | Med-High | High | Black |
| Built-Up Signal | 14172 | GUILDFORD RD & EIGHTH AV | Four-way | 1933.93 | 89.15 | Med-High | High | Black |
| Built-Up Signal | 14713 | GREAT EASTERN HWY & FAUNTLEROY AV | Four-way | 2432.35 | 69.48 | Med-High | High | Black |
| Built-Up Signal | 13900 | WHITFORDS AV ON - H016 STH BOUND & WHITFORDS AV & H016 STH BOUND - WHITFORDS AV | Unknown | 1987.46 | 84.10 | Med-High | High | Black |
| Built-Up Signal | 67708 | LOFTUS ST ON - H020 EAST BOUND & LOFTUS ST & LEEDERVILLE PDE | Four-way | 2076.51 | 78.24 | Med-High | High | Black |
| Built-Up Signal | 4161 | GUILDFORD RD & COLLIER RD | Three-way | 1953.71 | 80.26 | Med-High | High | Black |
| Built-Up Signal | 55559 | KARRINYUP - MORLEY HWY & GRAND PROM | Unknown | 2206.82 | 70.45 | Med-High | High | Black |
| Built-Up Signal | 39611 | KEWDALE RD & ORRONG RD | Four-way | 2369.56 | 64.27 | Med-High | High | Black |
| Built-Up Signal | 4413 | ALBANY HWY & KELVIN RD & OLGA RD | Unknown | 2175.85 | 69.05 | Med-High | High | Black |
| Built-Up Signal | 14306 | ALBANY HWY & LIEGE ST | Unknown | 2107.26 | 67.51 | Med-High | High | Black |
| Built-Up Signal | 13822 | STIRLING HWY & MARMION ST | Four-way | 1278.43 | 102.66 | Med-High | High | Black |
| Built-Up Signal | 128025 | KENWICK LINK & H018 NTH BND OFF & ON | Four-way | 2088.19 | 62.68 | Med-High | High | Black |
| Built-Up Signal | 11975 | WANNEROO RD & VICTORIA RD & HALLEY RD | Four-way | 1289.05 | 99.96 | Med-High | High | Black |
| Built-Up Signal | 4123 | ALBANY HWY & FREMANTLE RD | Unknown | 1876.50 | 68.44 | Med-High | High | Black |
| Built-Up Signal | 75552 | WELSHPOOL RD EAST & H018 STH BOUND OFF & ON | Four-way | 1422.90 | 79.26 | Med-High | High | Black |
| Built-Up Signal | 38828 | ORRONG RD & OATS ST - LG BDRY | Four-way | 3884.83 | 54.54 | Med-High | High | Black |

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|-----------------|-------|---|-----------|---------|--------|----------|------|-------|
| Built-Up Signal | 3641 | REID HWY & REID HWY ON - H016 NTH BOUND & MITCHELL FWY NTH - REID HWY | Unknown | 3411.28 | 55.41 | Med-High | High | Black |
| Built-Up Signal | 4356 | KARRINYUP - MORLEY HWY & KARRINYUP RD ON - H016 NTH BOU & CEDRIC ST - KARRINYUP | Four-way | 3343.21 | 54.11 | Med-High | High | Black |
| Built-Up Signal | 4154 | WANNEROO RD & HEPBURN AV | Four-way | 2891.19 | 58.69 | Med-High | High | Black |
| Built-Up Signal | 55308 | KARRINYUP - MORLEY HWY & ALEXANDER DR (STH BND) | Four-way | 2772.34 | 57.99 | Med-High | High | Black |
| Built-Up Signal | 47049 | SOUTH ST & KAREL AV | Four-way | 2517.12 | 61.34 | Med-High | High | Black |
| Built-Up Signal | 4575 | WANNEROO RD & WHITFORDS AV | Unknown | 2605.69 | 58.50 | Med-High | High | Black |
| Built-Up Signal | 4462 | CANNING HWY & WAY RD | Three-way | 2747.20 | 53.05 | Med-High | High | Black |
| Built-Up Signal | 55596 | KARRINYUP - MORLEY HWY & DIANELLA DR | Unknown | 2226.50 | 57.37 | Med-High | High | Black |
| Built-Up Signal | 4346 | H016 NTH BOUND - HUTTON ST OFF & HUTTON ST & HUTTON ST ON - H016 NTH BOUND | Unknown | 1884.53 | 104.54 | Med-High | High | Red |
| Built-Up Signal | 14170 | GREAT EASTERN HWY & CRAIG ST | Three-way | 1382.25 | 116.18 | High | High | Red |
| Built-Up Signal | 50783 | H020 WEST BOUND - LOFTUS ST OFF & LOFTUS ST & CAMBRIDGE ST | Unknown | 973.78 | 162.15 | High | High | Red |
| Built-Up Signal | 14148 | REID HWY EAST BND RAMPS & ALEXANDER DR | Unknown | 856.92 | 163.25 | High | High | Red |
| Built-Up Signal | 76936 | KWINANA FWY STH - RUSSELL RD & GIBB RD & RUSSELL RD - KWINANA FWY STH & RUSSEL | Four-way | 1181.71 | 117.10 | High | High | Red |

| | | | | | | | | |
|-----------------|--------|---|-----------|---------|--------|----------|----------|-----|
| Built-Up Signal | 180343 | REID HWY WEST BND RAMPS & ALEXANDER DR | Unknown | 704.41 | 155.45 | High | High | Red |
| Built-Up Signal | 13933 | WARWICK RD ON - H106 NTH BOUND & WARWICK RD & H016 NTH BOUND - WARWICK RD OF COCKBURN RD & SPEARWOOD AV | Unknown | 780.47 | 126.03 | High | High | Red |
| Built-Up Signal | 176182 | NARROWS RAMPS & BUSPORT ACCESS & WILLIAM ST & RIVERSIDE DR | Three-way | 683.26 | 143.74 | High | High | Red |
| Built-Up Signal | 155434 | KWINANA FWY STH - MUNDIJONG RD & MUNDIJONG RD & MUNDIJONG RD - KWINANA FWY STH | Four-way | 744.22 | 112.17 | High | Med-High | Red |
| Built-Up Signal | 119118 | KWINANA FWY NTH - ANKETELL RD & ANKETELL RD & ANKETELL RD - KWINANA FWY NTH | Unknown | 470.42 | 156.66 | High | Med-High | Red |
| Built-Up Signal | 119104 | KWINANA FWY NTH - ROWLEY RD & ROWLEY RD & ROWLEY RD - KWINANA FWY NTH | Unknown | 189.37 | 348.41 | High | Med-High | Red |
| Built-Up Signal | 119098 | KARRINYUP - MORLEY HWY & CEDRIC ST | Unknown | 213.08 | 249.59 | High | Med-High | Red |
| Built-Up Signal | 56004 | ALBANY HWY & MINT ST | Four-way | 2208.81 | 79.62 | Med-High | High | Red |
| Built-Up Signal | 4406 | WANNEROO RD & CAPE ST | Unknown | 2461.75 | 63.42 | Med-High | High | Red |
| Built-Up Signal | 55042 | WEST COAST HWY & HALE RD | Four-way | 2079.68 | 68.72 | Med-High | High | Red |
| Built-Up Signal | 52589 | CEDRIC ST ON - H016 STH BOUND & CEDRIC ST & KARRINYUP RD - CEDRIC ST | Three-way | 1744.40 | 71.31 | Med-High | High | Red |
| Built-Up Signal | 4350 | | Four-way | 1512.95 | 78.02 | Med-High | High | Red |

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|-----------------|-------|--|-----------|---------|-------|----------|----------|-----|
| Built-Up Signal | 52623 | WEST COAST HWY & OCEANIC DR | Four-way | 1482.76 | 78.44 | Med-High | High | Red |
| Built-Up Signal | 4349 | H016 NTH BOUND - CEDRIC ST OFF & CEDRIC ST & CEDRIC ST - KARRINYUP RD | Four-way | 1419.74 | 81.14 | Med-High | High | Red |
| Built-Up Signal | 10894 | LEACH HWY & WINTHROP DR | Three-way | 1518.26 | 72.48 | Med-High | High | Red |
| Built-Up Signal | 14250 | ALBANY HWY & EWING ST STH & BEDFORD ST | Unknown | 1206.40 | 85.80 | Med-High | High | Red |
| Built-Up Signal | 14136 | LEACH HWY & WEBB ST | Three-way | 1418.93 | 66.12 | Med-High | High | Red |
| Built-Up Signal | 56006 | KARRINYUP - MORLEY HWY & GRINDLEFORD DR & SAN REMO BVD | Four-way | 1001.89 | 87.59 | Med-High | Med-High | Red |
| Built-Up Signal | 14738 | GREAT EASTERN HWY & HELENA ST | Four-way | 1012.16 | 83.50 | Med-High | Med-High | Red |
| Built-Up Signal | 43188 | SOUTH ST & MCCOMBE AV | Three-way | 878.62 | 82.04 | Med-High | Med-High | Red |
| Built-Up Signal | 14096 | FARRINGTON RD ON - H015 NTH BO & FARRINGTON RD | Three-way | 818.92 | 86.91 | Med-High | Med-High | Red |
| Built-Up Signal | 46788 | THOMAS RD & JOHNSON RD | Three-way | 663.51 | 97.16 | Med-High | Med-High | Red |
| Built-Up Signal | 14245 | ALBANY HWY & JOHN ST STH & ASHBURTON ST | Three-way | 946.36 | 67.36 | Med-High | Med-High | Red |
| Built-Up Signal | 55992 | KARRINYUP - MORLEY HWY & SHOPPING CENTRE ACCESS & JEANES RD | Four-way | 887.78 | 68.07 | Med-High | Med-High | Red |
| Built-Up Signal | 4255 | ALBANY HWY & NICHOLSON RD | Unknown | 4348.06 | 50.33 | Med | High | Red |
| Built-Up Signal | 3548 | CANNING HWY & KWINANA FWY SOUTHBOUND OFF + ON RAMPS & BUS LANE TO CANNING HWY WB | Four-way | 4026.41 | 47.64 | Med | High | Red |

| | | | | | | | | |
|-----------------|--------|--|-----------|---------|-------|----------|------|-----|
| Built-Up Signal | 55823 | KARRINYUP - MORLEY HWY & HUNTRISS RD | Four-way | 3308.35 | 52.10 | Med-High | High | Red |
| Built-Up Signal | 82598 | GUILDFORD RD & LORD ST - EAST PDE & EAST PDE ON - H020 EAST BOUND | Four-way | 3145.30 | 49.72 | Med | High | Red |
| Built-Up Signal | 4041 | LEACH HWY & MOOLYEEN RD | Three-way | 3101.55 | 50.03 | Med | High | Red |
| Built-Up Signal | 76283 | GUILDFORD RD & EAST PDE - LORD ST & H020 WEST BOUND - EAST PDE OFF | Four-way | 2904.67 | 51.29 | Med | High | Red |
| Built-Up Signal | 75553 | WANNEROO RD & WANNEROO RD ON - H021 WEST BOU & H021 WEST BOUND - WANNEROO RD | Unknown | 3391.04 | 43.83 | Med | High | Red |
| Built-Up Signal | 14750 | ALBANY HWY & AUSTIN AV & KENWICK LINK | Unknown | 3393.06 | 43.74 | Med | High | Red |
| Built-Up Signal | 14265 | GUILDFORD RD & H017 NTH BND OFF & ON RAMPS | Unknown | 3344.48 | 44.35 | Med | High | Red |
| Built-Up Signal | 67701 | STIRLING HWY & WINTHROP AV | Unknown | 3364.76 | 43.72 | Med | High | Red |
| Built-Up Signal | 4177 | LEACH HWY & NORTH LAKE RD | Four-way | 3270.23 | 44.88 | Med | High | Red |
| Built-Up Signal | 182711 | WANNEROO RD & PINJAR RD | Unknown | 2880.26 | 50.89 | Med | High | Red |
| Built-Up Signal | 4439 | LEACH HWY & BARBICAN ST WEST & VAHLAND AV | Four-way | 2874.36 | 48.23 | Med | High | Red |
| Built-Up Signal | 50673 | WANNEROO RD & SCARBOROUGH BEACH RD & ANGOVE ST | Four-way | 2263.48 | 59.10 | Med-High | High | Red |
| Built-Up Signal | 37931 | KARRINYUP - MORLEY HWY & CRIMEA ST | Four-way | 2443.93 | 52.70 | Med-High | High | Red |
| Built-Up Signal | 55392 | WEST COAST HWY & SCARBOROUGH BEACH RD | Four-way | 3008.71 | 42.61 | Med | High | Red |
| Built-Up Signal | 55045 | WANNEROO RD & ROYAL ST | Four-way | 2705.18 | 45.86 | Med | High | Red |

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| Built-Up Signal | 4122 | ALBANY HWY (END DUAL) & WELSHPOOL RD & ALBANY HWY (LG) | Three-way | 2257.32 | 54.34 | Med-High | High | Red |
| Built-Up Signal | 14040 | WANNEROO RD & KINGSWAY | Unknown | 2579.36 | 45.79 | Med | High | Red |
| Built-Up Signal | 14296 | ALBANY HWY & CECIL AV | Three-way | 2569.27 | 45.34 | Med | High | Red |
| Built-Up Signal | 47055 | SOUTH ST & MURDOCH DR | Four-way | 2390.33 | 48.15 | Med | High | Red |
| Built-Up Signal | 3630 | WANNEROO RD & BALCATT A RD | Unknown | 2370.65 | 44.03 | Med | High | Red |
| Built-Up Signal | 14210 | GREAT EASTERN HWY & BRIGHTON RD & KOOYONG RD | Four-way | 2121.61 | 49.05 | Med | High | Red |
| Built-Up Signal | 4344 | H016 NTH BOUND - POWIS ST OFF & POWIS ST | Three-way | 2108.68 | 47.70 | Med | High | Red |
| Built-Up Signal | 4033 | WANNEROO RD & BEACH RD | Four-way | 2031.48 | 49.43 | Med | High | Red |
| Built-Up Signal | 13905 | HEPBURN AV ON - H016 STH BND & HEPBURN AV & H016 STH BND - HEPBURN AV OFF | Unknown | 1865.82 | 53.57 | Med-High | High | Red |
| Built-Up Signal | 11948 | WANNEROO RD & HESTER AV | Three-way | 1692.95 | 58.48 | Med-High | High | Red |
| Built-Up Signal | 47053 | SOUTH ST & BENNINGFIELD RD | Three-way | 2190.71 | 45.12 | Med | High | Red |
| Built-Up Signal | 13870 | H016 NTH BOUND - OCEAN REEF RD & OCEAN REEF RD & OCEAN REEF RD ON - H016 NTH BO | Unknown | 1725.55 | 54.83 | Med-High | High | Red |
| Built-Up Signal | 4062 | ALBANY HWY & SOUTH WESTERN HWY & ARMADALE RD | Four-way | 2114.98 | 43.44 | Med | High | Red |
| Built-Up Signal | 14271 | ALBANY HWY & HAMILTON ST | Unknown | 2074.62 | 42.86 | Med | Med-High | Red |
| Built-Up Signal | 55775 | KARRINYUP - MORLEY HWY & NORTH BEACH RD | Three-way | 1983.56 | 42.08 | Med | Med-High | Red |
| Built-Up Signal | 67711 | H016 STH BOUND - VINCENT ST OFF & VINCENT ST & LEEDERVILLE PDE & LINK TO H536 | Unknown | 1817.29 | 44.28 | Med | Med-High | Red |

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| Built-Up Signal | 14082 | CANNING HWY & ARDROSS ST | Four-way | 1485.20 | 51.56 | Med | Med-High | Red |
| Built-Up Signal | 13812 | STIRLING HWY & LEAKE ST & NAPOLEON ST | Four-way | 1537.48 | 48.94 | Med | Med-High | Red |
| Built-Up Signal | 14128 | CANNING HWY & BARKER AV & THELMA ST | Four-way | 1612.62 | 46.24 | Med | Med-High | Red |
| Built-Up Signal | 45282 | WELSHPOOL RD EAST & HALE RD | Three-way | 1557.45 | 46.58 | Med | Med-High | Red |
| Built-Up Signal | 4471 | CANNING HWY & CANNING BEACH RD | Three-way | 1418.14 | 50.32 | Med | Med-High | Red |
| Built-Up Signal | 13985 | WANNEROO RD & HASTINGS ST & CONLAN AV | Four-way | 1536.96 | 45.98 | Med | Med-High | Red |
| Built-Up Signal | 14177 | GUILDFORD RD & FALKIRK AV | Three-way | 1071.76 | 58.97 | Med-High | Med-High | Red |
| Built-Up Signal | 77115 | KARRINYUP - MORLEY HWY & JONES ST | Three-way | 1483.74 | 41.75 | Med | Med-High | Red |
| Built-Up Signal | 4181 | H016 NTH BOUND - ERINDALE RD O & ERINDALE RD | Three-way | 1130.70 | 46.24 | Med | Med-High | Red |
| Built-Up Signal | 3730 | GREAT EASTERN HWY & GEH ON - H017 NTH BOUND & H017 NTH BOUND - GEH OFF | Unknown | 4790.90 | 34.64 | Med | High | Red |
| Built-Up Signal | 4427 | GREAT EASTERN HWY & RESOLUTION DR & HARDEY RD | Four-way | 3798.66 | 39.13 | Med | High | Red |
| Built-Up Signal | 4120 | STOCK RD & LEACH HWY | Four-way | 3425.34 | 40.92 | Med | High | Red |
| Built-Up Signal | 4149 | ALBANY HWY & WILLIAM ST & KENWICK LINK | Four-way | 4156.54 | 33.44 | Med | High | Red |
| Built-Up Signal | 119086 | ARMADALE RD & KWINANA FWY NTH BND OFF & ON RAMPS | Unknown | 4300.30 | 31.39 | Med | High | Red |
| Built-Up Signal | 14092 | SOUTH ST & SOUTH ST ON - H015 NTH BOUND & H015 NTH BOUND - SOUTH ST OFF | Four-way | 3933.20 | 33.88 | Med | High | Red |

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| Built-Up Signal | 4453 | LEACH HWY & HIGH RD | Unknown | 3147.56 | 40.34 | Med | High | Red |
| Built-Up Signal | 4410 | ALBANY HWY & WHARF ST & CARDEN DR | Unknown | 3080.79 | 40.99 | Med | High | Red |
| Built-Up Signal | 50664 | WANNEROO RD & VINCENT ST | Four-way | 3564.45 | 34.87 | Med | High | Red |
| Built-Up Signal | 47047 | SOUTH ST & NORTH LAKE RD | Four-way | 2907.48 | 40.74 | Med | High | Red |
| Built-Up Signal | 4353 | KARRINYUP - MORLEY HWY & H016 STH BOUND - KARRINYUP RD & KARRINYUP RD - CEDRIC S | Four-way | 2874.41 | 41.19 | Med | High | Red |
| Built-Up Signal | 4407 | ALBANY HWY & OATS ST | Unknown | 2735.38 | 41.09 | Med | High | Red |
| Built-Up Signal | 43023 | SOUTH ST & CARRINGTON ST | Four-way | 2865.10 | 39.21 | Med | High | Red |
| Built-Up Signal | 4463 | CANNING HWY & DOUGLAS AV | Four-way | 2790.39 | 39.72 | Med | High | Red |
| Built-Up Signal | 4461 | CANNING HWY & BERWICK ST | Unknown | 3672.38 | 29.75 | Med | High | Red |
| Built-Up Signal | 3717 | REID HWY & ERINDALE RD | Four-way | 2831.73 | 38.03 | Med | High | Red |
| Built-Up Signal | 4405 | H001 & BUS LANE : BUS STN - H530 & H005 W BND OFF RAMP & BUS LANE : CAUSEWAY N | Unknown | 3105.79 | 34.36 | Med | High | Red |
| Built-Up Signal | 4457 | ORRONG RD & RAMPS OFF FROM/ON TO LEACH HWY | Four-way | 3558.04 | 29.77 | Med | High | Red |
| Built-Up Signal | 4487 | STIRLING HWY & QUEENSLEA DR & STIRLING RD | Four-way | 3562.07 | 29.30 | Low-Med | High | Red |
| Built-Up Signal | 14262 | ALBANY HWY & ALBANY HWY ON - H012 EAST BOUN & H012 EAST BOUND - ALBANY HWY O | Unknown | 3645.42 | 27.73 | Low-Med | High | Red |
| Built-Up Signal | 14264 | ALBANY HWY & H012 WEST BOUND - ALBANY HWY O & ALBANY HWY ON - H012 WEST BOUN | Unknown | 3645.42 | 27.10 | Low-Med | High | Red |
| Built-Up Signal | 55368 | KARRINYUP - MORLEY HWY & MAIN ST | Four-way | 3130.43 | 30.79 | Med | High | Red |

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| Built-Up Signal | 4597 | WEST COAST HWY & TO CAMPBELL BARRACKS & ALFRED RD | Four-way | 2558.01 | 37.60 | Med | High | Red |
| Built-Up Signal | 75554 | WANNEROO RD & H021 EAST BOUND - WANNEROO RD & WANNEROO RD ON - H021 EAST BOU | Unknown | 3433.64 | 27.25 | Low-Med | High | Red |
| Built-Up Signal | 14173 | ALBANY HWY & TEDDINGTON RD | Unknown | 2734.65 | 33.40 | Med | High | Red |
| Built-Up Signal | 4136 | ALBANY HWY (START DUAL) & BROOKTON HWY | Unknown | 3276.24 | 27.78 | Low-Med | High | Red |
| Built-Up Signal | 4451 | LEACH HWY & BULL CREEK DR | Unknown | 2719.00 | 32.16 | Med | Med-High | Red |
| Built-Up Signal | 13901 | STIRLING HWY & LEURA AV | Three-way | 2049.59 | 41.20 | Med | Med-High | Red |
| Built-Up Signal | 75484 | STOCK RD (NTH BND) & WINTERFOLD RD | Four-way | 2306.58 | 36.47 | Med | Med-High | Red |
| Built-Up Signal | 4040 | GREAT EASTERN HWY & LLOYD ST | Four-way | 2673.80 | 29.18 | Low-Med | Med-High | Red |
| Built-Up Signal | 4431 | GREAT EASTERN HWY & MORRISON RD | Four-way | 2026.19 | 35.80 | Med | Med-High | Red |
| Built-Up Signal | 14740 | ALBANY HWY & WANAPING RD & ROYAL ST | Unknown | 1834.81 | 39.28 | Med | Med-High | Red |
| Built-Up Signal | 55055 | WANNEROO RD & AMELIA ST | Four-way | 2550.58 | 27.65 | Low-Med | Med-High | Red |
| Built-Up Signal | 4475 | CANNING HWY & PRESTON POINT RD | Three-way | 1777.92 | 38.51 | Med | Med-High | Red |
| Built-Up Signal | 43046 | PORT BEACH RD & TYDEMAN RD | Three-way | 1674.13 | 38.51 | Med | Med-High | Red |
| Built-Up Signal | 4156 | COCKBURN RD & HAMPTON RD & ROCKINGHAM RD | Three-way | 1777.58 | 35.60 | Med | Med-High | Red |
| Built-Up Signal | 4415 | ALBANY HWY & DOROTHY ST | Unknown | 2067.68 | 29.36 | Low-Med | Med-High | Red |

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| Built-Up Signal | 13797 | STIRLING HWY & VICTORIA ST CRSG | Three-way | 1692.77 | 35.27 | Med | Med-High | Red |
| Built-Up Signal | 3601 | CANNING HWY & SLEAT RD | Four-way | 1872.52 | 31.23 | Med | Med-High | Red |
| Built-Up Signal | 4050 | GREAT EASTERN HWY & STONEVILLE RD & MUNDARING WEIR RD | Four-way | 1731.71 | 31.60 | Med | Med-High | Red |
| Built-Up Signal | 39688 | PILBARA ST & ORRONG RD | Four-way | 1479.31 | 35.44 | Med | Med-High | Red |
| Built-Up Signal | 76958 | STEPHENSON HWY & JON SANDERS DR & PEARSON ST | Unknown | 1707.41 | 30.20 | Med | Med-High | Red |
| Built-Up Signal | 16590 | GREAT EASTERN HWY & BOLTON AV | Unknown | 1823.88 | 27.34 | Low-Med | Med-High | Red |
| Built-Up Signal | 82411 | H016 NTH BOUND - HODGES DR OFF & HODGES DR | Unknown | 1572.30 | 28.20 | Low-Med | Med-High | Red |
| Built-Up Signal | 4424 | GREAT EASTERN HWY & H020 EAST BOUND - GEH OFF & GEH ON - H020 STH BOUND | Unknown | 5559.05 | 25.56 | Low-Med | High | Red |
| Built-Up Signal | 4146 | GREAT EASTERN HWY & H017 STH BOUND - GEH OFF & BREARLEY AV | Four-way | 5204.65 | 26.01 | Low-Med | High | Red |
| Built-Up Signal | 39628 | WELSHPOOL RD EAST & H018 NTH BOUND OFF & ON | Four-way | 4287.12 | 26.32 | Low-Med | High | Red |
| Built-Up Signal | 14240 | GREAT EASTERN HWY & BELMONT AV & TANUNDA DR | Four-way | 3887.04 | 24.79 | Low-Med | High | Red |
| Built-Up Signal | 4438 | LEACH HWY & RISELEY ST | Unknown | 3750.50 | 25.57 | Low-Med | High | Red |
| Built-Up Signal | 14897 | GREAT EASTERN HWY & ROE HWY | Four-way | 4197.40 | 19.19 | Low-Med | Med-High | Red |
| Built-Up Signal | 4313 | LEACH HWY & CARRINGTON ST & CARRINGTON ST | Four-way | 3178.93 | 24.60 | Low-Med | Med-High | Red |

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| Built-Up Signal | 4104 | STIRLING HWY & BROADWAY & HAMPDEN RD | Four-way | 2876.06 | 26.51 | Low-Med | Med-High | Red |
| Built-Up Signal | 10901 | LEACH HWY & MURDOCH DR | Unknown | 3348.02 | 22.78 | Low-Med | Med-High | Red |
| Built-Up Signal | 119083 | ARMADALE RD & KWINANA FWY STH BND OFF & ON RAMPS | Unknown | 3634.79 | 20.87 | Low-Med | Med-High | Red |
| Built-Up Signal | 80699 | KENWICK LINK & ROYAL ST | Four-way | 3031.13 | 24.60 | Low-Med | Med-High | Red |
| Built-Up Signal | 4436 | LEACH HWY & HIGH ST & STIRLING HWY | Unknown | 6017.20 | 11.99 | Low-Med | Med-High | Red |
| Built-Up Signal | 14197 | ALBANY HWY & MILLER ST | Unknown | 2768.00 | 25.87 | Low-Med | Med-High | Red |
| Built-Up Signal | 4579 | GUILDFORD RD & KING WILLIAM ST | Four-way | 2593.96 | 26.41 | Low-Med | Med-High | Red |
| Built-Up Signal | 39799 | SOUTH ST & VAHLAND AV | Unknown | 2799.82 | 23.72 | Low-Med | Med-High | Red |
| Built-Up Signal | 68098 | KARRINYUP - MORLEY HWY & ALEXANDER DR (NTH BND) | Four-way | 2571.75 | 25.77 | Low-Med | Med-High | Red |
| Built-Up Signal | 4016 | STIRLING HWY & JOHN ST & TYDEMAN RD | Four-way | 2948.50 | 21.59 | Low-Med | Med-High | Red |
| Built-Up Signal | 155047 | ORRONG RD & OFF FROM/ON TO LEACH HWY | Four-way | 3005.80 | 20.67 | Low-Med | Med-High | Red |
| Built-Up Signal | 4125 | WANNEROO RD & WARWICK RD | Unknown | 2401.94 | 25.19 | Low-Med | Med-High | Red |
| Built-Up Signal | 4455 | LEACH HWY & MANNING RD | Four-way | 3223.64 | 18.12 | Low-Med | Med-High | Red |
| Built-Up Signal | 43008 | QUEEN VICTORIA ST & TYDEMAN RD & QUEEN VICTORIA ST | Unknown | 4438.11 | 12.97 | Low-Med | Med-High | Red |
| Built-Up Signal | 3512 | LEACH HWY & KAREL AV | Unknown | 3260.87 | 17.31 | Low-Med | Med-High | Red |
| Built-Up Signal | 4044 | GREAT EASTERN HWY & FARRALL RD & HORACE ST | Four-way | 3036.81 | 18.31 | Low-Med | Med-High | Red |
| Built-Up Signal | 4479 | CANNING HWY & STIRLING HWY | Three-way | 2325.52 | 23.24 | Low-Med | Med-High | Red |
| Built-Up Signal | 47060 | SOUTH ST & GILBERTSON RD | Four-way | 1995.40 | 26.85 | Low-Med | Med-High | Red |
| Built-Up Signal | 4481 | STIRLING HWY & HACKETT DR | Unknown | 2297.69 | 22.64 | Low-Med | Med-High | Red |

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| Built-Up Signal | 4118 | GREAT EASTERN HWY & MEADOW ST | Four-way | 2315.44 | 22.27 | Low-Med | Med-High | Red |
| Built-Up Signal | 14705 | GREAT EASTERN HWY & COOLGARDIE AV | Four-way | 1854.79 | 26.44 | Low-Med | Med-High | Red |
| Built-Up Signal | 136988 | ALBANY HWY & TONKIN HWY NTH BND ON / OFF RAMPS | Unknown | 1895.41 | 25.41 | Low-Med | Med-High | Red |
| Built-Up Signal | 4162 | GREAT EASTERN HWY & GUILDFORD RD | Three-way | 3288.03 | 14.60 | Low-Med | Med-High | Red |
| Built-Up Signal | 51156 | WEST COAST HWY & THE BOULEVARD | Unknown | 2108.35 | 22.68 | Low-Med | Med-High | Red |
| Built-Up Signal | 4047 | CANNING HWY & REYNOLDS RD | Four-way | 2183.26 | 21.09 | Low-Med | Med-High | Red |
| Built-Up Signal | 37889 | KARRINYUP - MORLEY HWY & CAMBOON RD & WELLINGTON RD | Four-way | 3061.37 | 15.02 | Low-Med | Med-High | Red |
| Built-Up Signal | 129571 | SOUTH ST & H754 OFF FROM H018 WEST BND & H755 ON TO H018 WEST BND & 1140924 | Unknown | 4446.59 | 10.34 | Low | Med-High | Red |
| Built-Up Signal | 55032 | WANNEROO RD & WILUNA ST | Three-way | 2553.10 | 18.01 | Low-Med | Med-High | Red |
| Built-Up Signal | 4472 | CANNING HWY & RISELEY ST | Four-way | 2210.87 | 20.06 | Low-Med | Med-High | Red |
| Built-Up Signal | 4580 | GUILDFORD RD & WEST RD | Four-way | 2693.36 | 16.47 | Low-Med | Med-High | Red |
| Built-Up Signal | 81522 | GUILDFORD RD & GUILDFORD/RAILWAY PDE XING | Three-way | 1765.13 | 25.12 | Low-Med | Med-High | Red |
| Built-Up Signal | 14204 | LEACH HWY (WEST BND) & CENTENARY AV ONRAMP | Three-way | 1689.66 | 26.20 | Low-Med | Med-High | Red |
| Built-Up Signal | 119115 | KWINANA FWY NTH - MORTIMER RD & MORTIMER RD & MORTIMER RD - KWINANA FWY NTH | Unknown | 166.79 | 205.35 | High | Med | Orange |

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| Built-Up Signal | 119121 | KWINANA FWY NTH - KULIJA RD & KULIJA RD & KULIJA RD - KWINANA FWY NTH | Unknown | 242.43 | 127.77 | High | Low-Med | Orange |
| Built-Up Signal | 119095 | KWINANA FWY STH - ROWLEY RD & ROWLEY RD & ROWLEY RD - KWINANA FWY STH | Unknown | 414.54 | 82.62 | Med-High | Med | Orange |
| Built-Up Signal | 171500 | SAFETY BAY RD ON - H015 NTH BND & SAFETY BAY RD | Unknown | 379.27 | 67.13 | Med-High | Low-Med | Orange |
| Built-Up Signal | 116268 | H020 WB OFF & VICTORIA PARK DR & H020 WB ON | Unknown | 137.16 | 85.46 | Med-High | Low | Orange |
| Built-Up Signal | 119101 | KWINANA FWY STH - ANKETELL RD & ANKETELL RD & ANKETELL RD - KWINANA FWY STH | Unknown | 717.49 | 61.26 | Med-High | Med | Orange |
| Built-Up Signal | 14110 | REID HWY EAST BND OFF AND ON RAMPS & MIRRABOOKA AV | Unknown | 686.87 | 61.42 | Med-High | Med | Orange |
| Built-Up Signal | 50640 | LORD ST - EAST PDE & PARRY ST & LORD ST | Unknown | 678.67 | 53.44 | Med-High | Med | Orange |
| Built-Up Signal | 55993 | KARRINYUP - MORLEY HWY & MILES ST | Three-way | 620.41 | 51.95 | Med-High | Med | Orange |
| Built-Up Signal | 119112 | KWINANA FWY STH - MORTIMER RD & MORTIMER RD & MORTIMER RD - KWINANA FWY STH | Unknown | 604.53 | 48.43 | Med | Low-Med | Green |
| Built-Up Signal | 119080 | KWINANA FWY NTH - BERRIGAN DR & BERRIGAN DR & BERRIGAN DR - KWINANA FWY NTH | Unknown | 521.17 | 42.34 | Med | Low-Med | Green |
| Built-Up Signal | 14104 | H015 STH BOUND - FARRINGTON RD & FARRINGTON RD | Unknown | 1292.47 | 29.62 | Med | Med | Green |

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| Built-Up Signal | 55929 | WEST COAST HWY & MANNING ST | Three-way | 939.18 | 40.77 | Med | Med | Green |
| Built-Up Signal | 134963 | H018 WEST BND OFF/ON - WILLERI DR & WILLERI DR | Unknown | 982.63 | 34.86 | Med | Med | Green |
| Built-Up Signal | 11024 | SOUTH WESTERN HWY & BEENYUP RD & ABERNETHY RD | Three-way | 1075.41 | 29.97 | Med | Med | Green |
| Built-Up Signal | 67459 | TYDEMAN RD & NAPIER RD (FPA) | Three-way | 893.43 | 36.08 | Med | Med | Green |
| Built-Up Signal | 60091 | GREAT EASTERN HWY & HELENA ST | Four-way | 2163.59 | 20.31 | Low-Med | Med | Green |
| Built-Up Signal | 55050 | WANNEROO RD & NOLLAMARA AV | Three-way | 1847.16 | 23.07 | Low-Med | Med | Green |
| Built-Up Signal | 4490 | STIRLING HWY & JARRAD ST | Three-way | 1734.43 | 24.40 | Low-Med | Med | Green |
| Built-Up Signal | 4106 | WANNEROO RD & MARANGAROO DR | Unknown | 2306.97 | 18.32 | Low-Med | Med | Green |
| Built-Up Signal | 4464 | CANNING HWY & SOUTH TCE | Four-way | 2719.76 | 14.93 | Low-Med | Med | Green |
| Built-Up Signal | 4485 | STIRLING HWY & LOCH ST | Three-way | 1695.33 | 23.78 | Low-Med | Med | Green |
| Built-Up Signal | 14075 | VINCENT ST ON - H016 NTH BOUND & VINCENT ST & SOUTHPORT ST & LAKE MONGER DR | Four-way | 1631.30 | 24.27 | Low-Med | Med | Green |
| Built-Up Signal | 4449 | LEACH HWY & H015 STH BOUND - LEACH HWY OFF | Unknown | 5428.51 | 7.05 | Low | Med | Green |
| Built-Up Signal | 4425 | GREAT EASTERN HWY & ABERNETHY RD | Three-way | 2549.48 | 14.23 | Low-Med | Med | Green |
| Built-Up Signal | 128045 | NICHOLSON RD & H018 WEST BND OFF & ON | Unknown | 1571.94 | 23.07 | Low-Med | Med | Green |
| Built-Up Signal | 47054 | SOUTH ST & SHOPPING CTR ACCESS & CALLEY DR | Four-way | 1520.60 | 23.81 | Low-Med | Med | Green |

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| Built-Up Signal | 3549 | CANNING HWY & RAMP FROM MANNING RD + KWINANA FWY NB & BUS LANE TO CANNING HWY WB | Unknown | 5945.78 | 6.05 | Low | Med | Green |
| Built-Up Signal | 4409 | ALBANY HWY & MALLARD WY & MANNING RD | Unknown | 4337.61 | 8.27 | Low | Med | Green |
| Built-Up Signal | 41181 | WEST COAST HWY & CLAREMONT CR | Three-way | 2304.11 | 15.52 | Low-Med | Med | Green |
| Built-Up Signal | 4491 | STIRLING HWY & WELLINGTON ST | Three-way | 1483.17 | 23.09 | Low-Med | Med | Green |
| Built-Up Signal | 128044 | NICHOLSON RD & H018 EAST BND OFF & ON | Unknown | 1649.19 | 20.73 | Low-Med | Med | Green |
| Built-Up Signal | 13981 | WANNEROO RD & DUNDEBAR RD | Three-way | 2422.92 | 13.93 | Low-Med | Med | Green |
| Built-Up Signal | 14843 | ALBANY HWY & GILWELL AV | Three-way | 1514.05 | 21.48 | Low-Med | Med | Green |
| Built-Up Signal | 13992 | STIRLING HWY & DALKEITH RD | Four-way | 1739.28 | 18.53 | Low-Med | Med | Green |
| Built-Up Signal | 42713 | WEST COAST HWY & CURTIN AV & GRANT ST | Three-way | 2503.51 | 12.87 | Low-Med | Med | Green |
| Built-Up Signal | 76957 | STEPHENSON HWY & SCARBOROUGH BEACH RD | Unknown | 1922.33 | 16.36 | Low-Med | Low-Med | Green |
| Built-Up Signal | 4476 | CANNING HWY & STOCK RD | Four-way | 2324.99 | 13.35 | Low-Med | Low-Med | Green |
| Built-Up Signal | 55912 | WEST COAST HWY & BRIGHTON RD | Four-way | 2028.67 | 15.07 | Low-Med | Low-Med | Green |
| Built-Up Signal | 4426 | GREAT EASTERN HWY & STONEHAM ST & BELGRAVIA ST (A) | Four-way | 4777.55 | 6.34 | Low | Low-Med | Green |
| Built-Up Signal | 4107 | GUILDFORD RD & GUILDFORD RD & WHATLEY CR | Three-way | 2820.17 | 10.02 | Low | Low-Med | Green |

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| Built-Up Signal | 4915 | MILL POINT RD ON - H015 NTH BO & H015 STH BOUND - MILL POINT RD & MILL PT RD & L | Three-way | 1723.98 | 15.85 | Low-Med | Low-Med | Green |
| Built-Up Signal | 4477 | CANNING HWY & CARRINGTON ST | Three-way | 1596.58 | 16.35 | Low-Med | Low-Med | Green |
| Built-Up Signal | 4295 | H018 NTH BOUND - CLAYTON ST OFF & CLAYTON ST & ROBINSON RD | Unknown | 943.14 | 26.84 | Low-Med | Low-Med | Green |
| Built-Up Signal | 50658 | WANNEROO RD & CARR ST | Four-way | 2153.54 | 11.38 | Low | Low-Med | Green |
| Built-Up Signal | 4473 | CANNING HWY & NORTH LAKE RD | Three-way | 2495.69 | 9.36 | Low | Low-Med | Green |
| Built-Up Signal | 4430 | GREAT EASTERN HWY & TERRACE RD | Unknown | 1661.38 | 14.02 | Low-Med | Low-Med | Green |
| Built-Up Signal | 11019 | SOUTH WESTERN HWY & BEDFORDALE HILL RD & WILLIAM ST | Four-way | 1231.34 | 18.65 | Low-Med | Low-Med | Green |
| Built-Up Signal | 13793 | STIRLING HWY & MCCABE ST | Three-way | 1330.03 | 16.92 | Low-Med | Low-Med | Green |
| Built-Up Signal | 38823 | ORRONG RD & WRIGHT ST | Three-way | 2497.30 | 8.87 | Low | Low-Med | Green |
| Built-Up Signal | 82300 | REID HWY WEST BND OFF AND ON RAMPS & MIRRABOOKA AV | Unknown | 874.85 | 25.31 | Low-Med | Low-Med | Green |
| Built-Up Signal | 55994 | KARRINYUP - MORLEY HWY & FRANCIS AV | Three-way | 815.66 | 26.75 | Low-Med | Low-Med | Green |
| Built-Up Signal | 119160 | ALBANY HWY & BUS LANE : CAUSEWAY NTH BND & H005 W BND OFF RAMP | Unknown | 2177.44 | 10.02 | Low | Low-Med | Green |
| Built-Up Signal | 154233 | SOUTH ST & SOUTH ST ON - H015 STH BOUND | Four-way | 3990.82 | 5.47 | Low | Low-Med | Green |
| Built-Up Signal | 14226 | LEACH HWY & BUNGAREE RD | Four-way | 2465.28 | 8.66 | Low | Low-Med | Green |

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| Built-Up Signal | 4182 | ERINDALE RD ON - H016 STH BOUN & ERINDALE RD | Three-way | 1629.20 | 12.57 | Low-Med | Low-Med | Green |
| Built-Up Signal | 11969 | WANNEROO RD & PRINDIVILLE DR | Three-way | 2080.69 | 9.70 | Low | Low-Med | Green |
| Built-Up Signal | 129570 | SOUTH ST & H766 OFF FROM H018 EAST BND & H753 ON TO H018 EAST BND | Unknown | 4646.11 | 4.35 | Low | Low-Med | Green |
| Built-Up Signal | 43174 | SOUTH ST & PAGET ST | Three-way | 944.34 | 21.23 | Low-Med | Low-Med | Green |
| Built-Up Signal | 4577 | GUILDFORD RD & FIRST AV EAST | Three-way | 1427.63 | 13.87 | Low-Med | Low-Med | Green |
| Built-Up Signal | 13880 | OCEAN REEF RD ON - H016 STH BO & OCEAN REEF RD & H016 STH BOUND - OCEAN REEF RD | Unknown | 2146.04 | 9.01 | Low | Low-Med | Green |
| Built-Up Signal | 119077 | KWINANA FWY STH - BERRIGAN DR & BERRIGAN DR & BERRIGAN DR - KWINANA FWY STH | Unknown | 946.15 | 20.43 | Low-Med | Low-Med | Green |
| Built-Up Signal | 168389 | H016 NTH BND - SHENTON AVE OFF & SHENTON AVE ON & SHENTON AVE | Unknown | 1103.64 | 17.51 | Low-Med | Low-Med | Green |
| Built-Up Signal | 188271 | ARMADALE RD & RAILWAY AV & ABBEY RD | Three-way | 1572.85 | 12.24 | Low-Med | Low-Med | Green |
| Built-Up Signal | 13892 | H016 NTH BND - HEPBURN AV OFF & HEPBURN AV & HEPBURN AV ON - H016 NTH BND | Unknown | 2087.21 | 8.67 | Low | Low-Med | Green |
| Built-Up Signal | 128026 | KENWICK LINK & H018 STH BND OFF & ON | Four-way | 2266.80 | 7.09 | Low | Low-Med | Green |
| Built-Up Signal | 4401 | ALBANY HWY & H013 EAST BOUND - CAUSEWAY NTH | Three-way | 2993.17 | 5.26 | Low | Low-Med | Green |
| Built-Up Signal | 4478 | CANNING HWY & PRESTON POINT RD | Three-way | 1356.21 | 11.27 | Low | Low-Med | Green |

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| Built-Up Signal | 4446 | LEACH HWY & H015 NTH BOUND - LEACH HWY OFF | Unknown | 5527.33 | 2.56 | Low | Low-Med | Green |
| Built-Up Signal | 136989 | ALBANY HWY & TONKIN HWY STH BND ON / OFF RAMP | Unknown | 2382.02 | 5.90 | Low | Low-Med | Green |
| Built-Up Signal | 4139 | ALBANY HWY & ADELAIDE TCE | Unknown | 2973.75 | 4.62 | Low | Low-Med | Green |
| Built-Up Signal | 4316 | STIRLING HWY & BAY VIEW TCE | Four-way | 1851.97 | 7.16 | Low | Low-Med | Green |
| Built-Up Signal | 14721 | GREAT EASTERN HWY & GREAT EASTERN HWY BYPASS | Three-way | 5967.78 | 2.22 | Low | Low-Med | Green |
| Built-Up Signal | 81673 | WEST COAST HWY & NORTH ST | Four-way | 2850.56 | 4.65 | Low | Low-Med | Green |
| Built-Up Signal | 13787 | STIRLING HWY & ALFRED RD | Three-way | 1330.03 | 9.11 | Low | Low-Med | Green |
| Built-Up Signal | 13873 | CANNING HWY & PETRA ST (LG BDRY) | Four-way | 1147.03 | 10.56 | Low | Low-Med | Green |
| Built-Up Signal | 4428 | GREAT EASTERN HWY & KALAMUNDA RD | Three-way | 1755.51 | 6.86 | Low | Low-Med | Green |
| Built-Up Signal | 4993 | GREAT EASTERN HWY & MIDLAND GATE ACCESS RD & PADBURY TCE | Four-way | 986.08 | 12.21 | Low-Med | Low-Med | Green |
| Built-Up Signal | 4345 | POWIS ST ON - H016 STH BOUND & POWIS ST | Three-way | 1083.96 | 10.38 | Low | Low | Green |
| Built-Up Signal | 82410 | HODGES DR ON - H016 STH BOUND & HODGES DR | Unknown | 1750.30 | 6.43 | Low | Low | Green |
| Built-Up Signal | 68988 | ALBANY HWY & PAGE RD | Three-way | 689.95 | 13.38 | Low-Med | Low | Green |
| Built-Up Signal | 134962 | H018 EAST BND OFF/ON - WILLERI DR & WILLERI DR | Unknown | 1006.29 | 9.17 | Low | Low | Green |
| Built-Up Signal | 4034 | WANNEROO RD & GNANGARA RD | Three-way | 2290.44 | 3.53 | Low | Low | Green |
| Built-Up Signal | 13949 | STOCK RD & GARLING ST & STOCKDALE RD | Four-way | 978.43 | 8.25 | Low | Low | Green |

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| Built-Up Signal | 4587 | CANNING HWY & QUEEN VICTORIA ST & QUEEN VICTORIA ST | Three-way | 1897.45 | 3.19 | Low | Low | Green |
| Built-Up Signal | 72536 | THOMAS RD & KWINANA FWY STH - THOMAS RD & THOMAS RD & THOMAS RD - KWINANA FWY | Unknown | 1699.78 | 3.56 | Low | Low | Green |
| Built-Up Signal | 149893 | GREAT EASTERN HWY & PADBURY TCE | Four-way | 881.91 | 6.87 | Low | Low | Green |
| Built-Up Signal | 4020 | SOUTH WESTERN HWY & THOMAS RD | Three-way | 1213.03 | 3.33 | Low | Low | Green |
| Built-Up Signal | 4138 | WANNEROO RD & MAIN ST | Three-way | 2206.12 | 1.83 | Low | Low | Green |
| Built-Up Signal | 13800 | STIRLING HWY & GLYDE ST | Three-way | 1306.78 | 3.09 | Low | Low | Green |
| Built-Up Signal | 13842 | STIRLING HWY & OSBORNE PDE & ERIC ST | Four-way | 1674.15 | 2.41 | Low | Low | Green |
| Built-Up Signal | 14161 | GUILDFORD RD & THIRLMERE RD | Three-way | 1259.07 | 3.21 | Low | Low | Green |
| Built-Up Signal | 14194 | GREAT EASTERN HWY & GRIFFITHS ST & H020 WEST BOUND - GEH OFF | Unknown | 4972.44 | 0.81 | Low | Low | Green |
| Built-Up Signal | 55033 | WANNEROO RD & LONDON ST | Three-way | 1577.50 | 2.56 | Low | Low | Green |
| Built-Up Signal | 91532 | GUILDFORD RD & OLD PERTH RD | Three-way | 1001.39 | 4.03 | Low | Low | Green |
| Built-Up Signal | 116267 | H020 EB OFF & H020 EB ON & VICTORIA PARK DR | Four-way | 1019.23 | 3.96 | Low | Low | Green |
| Built-Up Signal | 168403 | H016 STH BND - SHENTON AVE ON & SHENTON AVE OFF & SHENTON AVE | Unknown | 562.22 | 7.18 | Low | Low | Green |
| Built-Up Signal | 168406 | H016 STH BND START - BURNS BEACH RD | Three-way | 991.71 | 4.07 | Low | Low | Green |

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| Built-Up Signal | 194349 | LEACH HWY & KWINANA FWY (NORTHBOUND) OFF TO LEACH HWY (WESTBOUND) | Three-way | 2199.70 | 1.84 | Low | Low | Green |
| Built-Up Signal | 3500 | CLAYTON ST ON - H018 STH BOUND & CLAYTON ST | Three-way | 807.35 | 2.50 | Low | Low | Green |
| Built-Up Signal | 82731 | ALBANY HWY & ALBANY HWY ON - H013 WEST BOUND | Three-way | 2993.17 | 0.67 | Low | Low | Green |
| Built-Up Signal | 143415 | QUEEN VICTORIA ST (H031) & QUEEN VICTORIA ST & BEACH ST (H056) | Three-way | 2623.10 | 0.77 | Low | Low | Green |
| Built-Up Signal | 164784 | COCKBURN RD & ORSINO BVD | Three-way | 393.61 | 5.13 | Low | Low | Green |
| Built-Up Signal | 171499 | H015 STH BND OFF - SAFETY BAY RD & SAFETY BAY RD | Three-way | 1322.97 | 1.53 | Low | Low | Green |
| Built-Up Non-Signal | 54230 | NICHOLSON RD & THOMAS RD | Three-way | 1353.33 | 169.91 | High | High | Black |
| Built-Up Non-Signal | 42886 | CANNING HWY & EAST ST | Four-way | 1252.39 | 182.49 | High | High | Black |
| Built-Up Non-Signal | 14192 | ALBANY HWY & GRESHAM ST | Unknown | 1496.35 | 117.13 | High | High | Black |
| Built-Up Non-Signal | 45285 | WELSHPOOL RD EAST & BRUCE RD & BROOK RD | Four-way | 850.04 | 203.48 | High | High | Black |
| Built-Up Non-Signal | 14879 | SOUTH WESTERN HWY & THIRD RD | Three-way | 719.71 | 223.61 | High | High | Black |
| Built-Up Non-Signal | 14295 | GUILDFORD RD & COLSTOUN RD | Three-way | 878.20 | 176.73 | High | High | Black |
| Built-Up Non-Signal | 47051 | SOUTH ST & WHEATLEY DR | Three-way | 1198.25 | 122.32 | High | High | Black |
| Built-Up Non-Signal | 4414 | ALBANY HWY & GOSNELLS RD WEST | Three-way | 706.25 | 176.09 | High | High | Black |
| Built-Up Non-Signal | 4432 | GREAT EASTERN HWY & SCOTT ST | Three-way | 1750.35 | 97.81 | Med-High | High | Black |
| Built-Up Non-Signal | 14186 | GREAT EASTERN HWY & VICTORIA PARK DR & BURSWOOD RD | Four-way | 1823.88 | 84.82 | Med-High | High | Black |

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| Built-Up Non-Signal | 37927 | KARRINYUP - MORLEY HWY & MCGILVRAY AV | Three-way | 1536.95 | 99.09 | Med-High | High | Black |
| Built-Up Non-Signal | 14236 | LEACH HWY & BRAIBRISE RD | Four-way | 1482.29 | 88.87 | Med-High | High | Black |
| Built-Up Non-Signal | 14188 | ALBANY HWY & AXON AV | Unknown | 1496.35 | 76.58 | Med-High | High | Black |
| Built-Up Non-Signal | 14855 | GREAT EASTERN HWY & FERGUSON ST | Four-way | 1238.44 | 85.97 | Med-High | High | Black |
| Built-Up Non-Signal | 38835 | ORRONG RD & PRESIDENT ST | Four-way | 1634.71 | 59.15 | Med-High | High | Black |
| Built-Up Non-Signal | 75574 | GUILDFORD RD & SECOND AV EAST | Three-way | 1259.07 | 76.80 | Med-High | High | Black |
| Built-Up Non-Signal | 39040 | ROBERTS RD & ORRONG RD | Three-way | 1371.48 | 143.10 | High | High | Red |
| Built-Up Non-Signal | 13931 | CANNING HWY & MURRAY RD | Four-way | 1272.23 | 141.75 | High | High | Red |
| Built-Up Non-Signal | 14711 | BREARLEY AV & SECOND ST (B) H016 STH BOUND - WARWICK RD OFF & WARWICK RD & WARWICK RD ON - H016 STH BOUND | Three-way | 805.47 | 207.23 | High | High | Red |
| Built-Up Non-Signal | 13941 | BOUND | Unknown | 799.17 | 148.19 | High | High | Red |
| Built-Up Non-Signal | 14775 | ALBANY HWY & HELM ST | Three-way | 706.25 | 142.32 | High | High | Red |
| Built-Up Non-Signal | 38821 | ORRONG RD & ALEXANDER RD | Three-way | 2306.94 | 64.32 | Med-High | High | Red |
| Built-Up Non-Signal | 14831 | GREAT EASTERN HWY & LOTON AV | Four-way | 1238.44 | 115.17 | High | High | Red |
| Built-Up Non-Signal | 14055 | LEACH HWY & NORMA RD | Three-way | 1425.82 | 99.58 | Med-High | High | Red |
| Built-Up Non-Signal | 55056 | WANNEROO RD & ARKANA RD | Three-way | 1705.42 | 83.05 | Med-High | High | Red |
| Built-Up Non-Signal | 13920 | CANNING HWY & FOSS ST | Four-way | 1272.23 | 99.45 | Med-High | High | Red |
| Built-Up Non-Signal | 47052 | SOUTH ST & FINDLAY RD | Three-way | 1673.23 | 71.14 | Med-High | High | Red |
| Built-Up Non-Signal | 13830 | LEACH HWY & MONTREAL ST | Three-way | 1170.99 | 100.88 | Med-High | High | Red |
| Built-Up Non-Signal | 16606 | LEACH HWY & MARCUS AV | Three-way | 1609.30 | 72.30 | Med-High | High | Red |
| Built-Up Non-Signal | 55611 | KARRINYUP - MORLEY HWY & CONSTANCE ST | Four-way | 960.42 | 112.73 | High | High | Red |
| Built-Up Non-Signal | 14063 | WANNEROO RD & NUGENT ST & AMBERLEY WY | Four-way | 1289.05 | 83.38 | Med-High | High | Red |

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| Built-Up Non-Signal | 14132 | ARMADALE RD & SOLOMON RD | Three-way | 983.40 | 106.45 | High | High | Red |
| Built-Up Non-Signal | 56001 | KARRINYUP - MORLEY HWY & JACKSON AV | Three-way | 952.49 | 106.59 | High | High | Red |
| Built-Up Non-Signal | 14021 | LEACH HWY & ROME RD | Three-way | 1091.96 | 92.05 | Med-High | High | Red |
| Built-Up Non-Signal | 14169 | GUILDFORD RD & SEVENTH AV | Four-way | 1414.20 | 68.76 | Med-High | High | Red |
| Built-Up Non-Signal | 14311 | ALBANY HWY & STATION ST STH | Three-way | 1710.74 | 56.67 | Med-High | High | Red |
| Built-Up Non-Signal | 14890 | GREAT EASTERN HWY & BUSHBY ST | Four-way | 1238.44 | 75.73 | Med-High | High | Red |
| Built-Up Non-Signal | 13964 | ROCKINGHAM RD (STH BND) & WATTLEUP RD | Four-way | 896.32 | 101.24 | Med-High | High | Red |
| Built-Up Non-Signal | 14041 | WANNEROO RD & CANHAM WY | Three-way | 985.31 | 92.10 | Med-High | High | Red |
| Built-Up Non-Signal | 14156 | GUILDFORD RD & STANLEY ST | Three-way | 1068.27 | 82.45 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 38837 | ORRONG RD & KEW ST | Four-way | 1634.71 | 53.88 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 80669 | ARMADALE RD & FRESHWATER DR | Three-way | 983.40 | 87.87 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 14181 | GUILDFORD RD & CALEDONIAN AV | Three-way | 1071.46 | 78.58 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 13909 | WANNEROO RD & ASHLEY RD | Three-way | 785.63 | 105.64 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 10158 | STOCK RD & SAINSBURY RD | Three-way | 741.51 | 106.97 | High | Med-High | Red |
| Built-Up Non-Signal | 13843 | LEACH HWY & ONSLOW ST | Three-way | 1198.89 | 65.54 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 14708 | ALBANY HWY & HIGHBURY CR | Three-way | 965.39 | 80.85 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 14051 | CANNING HWY & NORMA RD & DUNKLEY AV | Four-way | 1283.13 | 59.26 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 56003 | KARRINYUP - MORLEY HWY & MUIR ST | Three-way | 1054.64 | 72.09 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 14232 | ALBANY HWY & BOUNDARY RD | Three-way | 1198.47 | 62.83 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 43168 | SOUTH ST & SHEPHERD ST | Three-way | 831.78 | 88.49 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 14002 | KARRINYUP - MORLEY HWY & DENNIS ST | Three-way | 670.84 | 109.15 | High | Med-High | Red |

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| Built-Up Non-Signal | 14870 | GREAT EASTERN HWY & WELLATON ST | Three-way | 645.10 | 113.51 | High | Med-High | Red |
| Built-Up Non-Signal | 13913 | CANNING HWY & MCKIMMIE RD & POINT WALTER RD | Four-way | 1272.23 | 55.55 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 14053 | WANNEROO RD & CULLOTON CR | Three-way | 992.81 | 70.83 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 11972 | WANNEROO RD & EAST RD | Three-way | 1164.79 | 59.81 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 14007 | WANNEROO RD & ELLIOT RD | Three-way | 1164.79 | 58.62 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 12301 | GUILDFORD RD & MARKET ST | Three-way | 1224.04 | 55.15 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 13890 | STIRLING HWY & FRESHWATER PDE | Three-way | 1162.25 | 58.09 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 14761 | ALBANY HWY & BLACKBURN ST | Three-way | 1063.59 | 63.47 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 14766 | ALBANY HWY & DALZIELL ST | Three-way | 706.25 | 95.59 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 81683 | GREAT EASTERN HWY & MOORE AV | Three-way | 938.56 | 71.93 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 14851 | ALBANY HWY & FANCOTE ST & DAVIS RD | Unknown | 1357.43 | 49.63 | Med | Med-High | Red |
| Built-Up Non-Signal | 119139 | REID HWY & NORTH BEACH RD | Three-way | 1220.24 | 53.56 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 14810 | GREAT EASTERN HWY & BROCKMAN RD | Four-way | 1286.54 | 50.42 | Med | Med-High | Red |
| Built-Up Non-Signal | 13956 | STIRLING HWY & TAYLOR RD | Three-way | 1272.68 | 50.65 | Med | Med-High | Red |
| Built-Up Non-Signal | 14191 | GUILDFORD RD & BELGRAVE ST | Three-way | 1071.76 | 60.15 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 68322 | CANNING HWY & ANDREW RD | Three-way | 1072.41 | 60.11 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 55037 | WANNEROO RD & ROBERTS ST | Three-way | 850.66 | 75.52 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 13802 | STIRLING HWY & SALVADO ST | Three-way | 1194.02 | 51.56 | Med | Med-High | Red |
| Built-Up Non-Signal | 43186 | SOUTH ST & YARRICK ST | Three-way | 911.14 | 67.56 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 50669 | WANNEROO RD & VIEW ST | Three-way | 1158.52 | 53.12 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 14020 | CANNING HWY & ROME RD | Three-way | 876.50 | 69.13 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 81638 | ORRONG RD & KURNALL RD | Four-way | 1156.01 | 52.36 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 13848 | COCKBURN RD & MAYOR RD | Three-way | 524.84 | 112.20 | High | Med-High | Red |

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| Built-Up Non-Signal | 14054 | WANNEROO RD & TREEN ST | Three-way | 992.81 | 58.94 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 11971 | WANNEROO RD & VILLANOVA ST | Three-way | 1164.79 | 49.41 | Med | Med-High | Red |
| Built-Up Non-Signal | 51110 | GUILDFORD RD & SUMMERS ST | Three-way | 1124.99 | 50.54 | Med | Med-High | Red |
| Built-Up Non-Signal | 55046 | WANNEROO RD & SWAN ST | Four-way | 1072.72 | 52.06 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 13938 | LEACH HWY & JUSTINIAN ST | Three-way | 862.45 | 60.03 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 14032 | WANNEROO RD & LANCASTER RD | Three-way | 860.88 | 60.13 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 14752 | GREAT EASTERN HWY & ATTFIELD ST | Three-way | 770.38 | 64.58 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 13896 | WANNEROO RD & CLARKSON AV | Three-way | 785.63 | 62.86 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 14885 | GREAT EASTERN HWY & EWART ST | Three-way | 938.56 | 52.62 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 76904 | WANNEROO RD & GOLF LINKS DR | Three-way | 901.46 | 54.79 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 14871 | SOUTH WESTERN HWY & MARSH RD & FOURTH RD | Four-way | 949.66 | 49.58 | Med | Med-High | Red |
| Built-Up Non-Signal | 12300 | GUILDFORD RD & NORTH ST | Unknown | 909.48 | 48.42 | Med | Med-High | Red |
| Built-Up Non-Signal | 13948 | STOCK RD & BOON ST | Three-way | 741.51 | 59.39 | Med-High | Med-High | Red |
| Built-Up Non-Signal | 14286 | GUILDFORD RD & MOOJEBING ST | Three-way | 878.20 | 50.15 | Med | Med-High | Red |
| Built-Up Non-Signal | 75485 | STOCK RD (STH BND) & WINTERFOLD RD | Four-way | 2169.33 | 39.72 | Med | Med-High | Red |
| Built-Up Non-Signal | 119153 | ALBANY HWY & RIVERSIDE DR (END LEFT CWY) | Three-way | 1896.72 | 37.20 | Med | Med-High | Red |
| Built-Up Non-Signal | 13986 | STIRLING HWY & MOUNTJOY RD & BAIRD AV | Four-way | 1739.28 | 38.82 | Med | Med-High | Red |
| Built-Up Non-Signal | 14011 | WANNEROO RD & BUCKINGHAM DR | Three-way | 1699.52 | 38.00 | Med | Med-High | Red |
| Built-Up Non-Signal | 13864 | STIRLING HWY & ALBERT ST | Three-way | 1535.74 | 41.98 | Med | Med-High | Red |

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| Built-Up Non-Signal | 41027 | SOUTH ST & BEASLEY RD | Three-way | 1362.47 | 43.69 | Med | Med-High | Red |
| Built-Up Non-Signal | 39306 | BALLANTYNE RD & ORRONG RD & DIVISION ST STH | Four-way | 1479.31 | 36.28 | Med | Med-High | Red |
| Built-Up Non-Signal | 13930 | STIRLING HWY & BAY RD | Three-way | 1297.45 | 38.35 | Med | Med-High | Red |
| Built-Up Non-Signal | 47048 | SOUTH ST & GRACECHURCH CR | Three-way | 1119.22 | 44.45 | Med | Med-High | Red |
| Built-Up Non-Signal | 55931 | WEST COAST HWY & PEARL PDE | Three-way | 1299.36 | 38.29 | Med | Med-High | Red |
| Built-Up Non-Signal | 36342 | ARMADALE RD & CHURCH AV | Three-way | 1191.65 | 41.25 | Med | Med-High | Red |
| Built-Up Non-Signal | 14139 | CANNING HWY & BIRDWOOD AV | Three-way | 1277.99 | 37.63 | Med | Med-High | Red |
| Built-Up Non-Signal | 14164 | LEACH HWY & CORINTHIAN RD EAST | Three-way | 1043.70 | 46.08 | Med | Med-High | Red |
| Built-Up Non-Signal | 129008 | FELSPAR ST & ORRONG RD | Three-way | 1212.81 | 39.47 | Med | Med-High | Red |
| Built-Up Non-Signal | 14023 | STIRLING HWY & ARCHDEACON ST | Three-way | 1344.83 | 34.46 | Med | Med-High | Red |
| Built-Up Non-Signal | 14163 | CANNING HWY & TAYLOR ST | Three-way | 1169.42 | 38.52 | Med | Med-High | Red |
| Built-Up Non-Signal | 184390 | GEH & ROE HWY STH BND OFF TO GEH & GEH EAST BND ON TO ROE HWY | Unknown | 1761.57 | 25.21 | Low-Med | Med-High | Red |
| Built-Up Non-Signal | 14135 | CANNING HWY & COMER ST | Three-way | 1277.99 | 34.46 | Med | Med-High | Red |
| Built-Up Non-Signal | 14229 | GUILDFORD RD & ROBERTS ST | Three-way | 1140.69 | 38.61 | Med | Med-High | Red |
| Built-Up Non-Signal | 119109 | THOMAS RD & THOMAS RD - KWINANA FWY NTH & KWINANA FWY NTH - THOMAS RD | Unknown | 2140.34 | 23.42 | Low-Med | Med-High | Red |
| Built-Up Non-Signal | 187334 | GEH & GEH ON TO ROE HWY NTH BND & ROE HWY NTH BND OFF TO GEH WEST BND | Unknown | 2092.23 | 22.99 | Low-Med | Med-High | Red |
| Built-Up Non-Signal | 4550 | H018 NTH BOUND - MAIDA VALE RD & MAIDA VALE RD | Three-way | 560.99 | 78.08 | Med-High | Med | Orange |
| Built-Up Non-Signal | 36310 | ARMADALE RD & STREICH AV | Three-way | 559.44 | 75.67 | Med-High | Med | Orange |

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| Built-Up Non-Signal | 55990 | KARRINYUP - MORLEY HWY & BURROUGHS RD | Three-way | 672.81 | 62.63 | Med-High | Med | Orange |
| Built-Up Non-Signal | 10002 | ALBANY HWY & MCINTYRE WY | Three-way | 644.26 | 63.63 | Med-High | Med | Orange |
| Built-Up Non-Signal | 13795 | STIRLING HWY & HARVEST RD | Three-way | 703.20 | 58.29 | Med-High | Med | Orange |
| Built-Up Non-Signal | 14864 | ALBANY HWY & CARAWATHA AV | Three-way | 663.06 | 61.82 | Med-High | Med | Orange |
| Built-Up Non-Signal | 14888 | SOUTH WESTERN HWY & SAW RD | Three-way | 719.71 | 56.96 | Med-High | Med | Orange |
| Built-Up Non-Signal | 42195 | SPARKS RD & RUSSELL RD (WEST) | Three-way | 787.05 | 52.08 | Med-High | Med | Orange |
| Built-Up Non-Signal | 75569 | SOUTH WESTERN HWY & DICKENS PL | Three-way | 622.92 | 65.81 | Med-High | Med | Orange |
| Built-Up Non-Signal | 14894 | BROOKTON HWY & LEFROY RD | Three-way | 477.26 | 67.54 | Med-High | Med | Orange |
| Built-Up Non-Signal | 42883 | CANNING HWY & SEWELL RD | Three-way | 519.48 | 62.05 | Med-High | Med | Orange |
| Built-Up Non-Signal | 130005 | KENWICK LINK & WIMBLEDON ST SVC RD | Three-way | 589.64 | 54.66 | Med-High | Med | Orange |
| Built-Up Non-Signal | 67463 | WANNEROO RD & WOODVALE DR | Three-way | 833.75 | 50.38 | Med | Med | Green |
| Built-Up Non-Signal | 4551 | MAIDA VALE RD ON - H018 STH BO & MAIDA VALE RD | Three-way | 626.59 | 51.44 | Med | Med | Green |
| Built-Up Non-Signal | 14742 | ALBANY HWY & COOPER AV | Three-way | 644.26 | 50.03 | Med | Med | Green |
| Built-Up Non-Signal | 36541 | ARMADALE RD & ORCHARD AV | Three-way | 559.44 | 48.78 | Med | Low-Med | Green |
| Built-Up Non-Signal | 14914 | TOODYAY RD & LEWIS JONES CR | Three-way | 1199.34 | 35.14 | Med | Med | Green |
| Built-Up Non-Signal | 14842 | GREAT EASTERN HWY & LEFROY AV | Three-way | 938.56 | 44.75 | Med | Med | Green |
| Built-Up Non-Signal | 119142 | REID HWY & DUFFY RD (NORTH) | Three-way | 1306.21 | 31.67 | Med | Med | Green |
| Built-Up Non-Signal | 14759 | GREAT EASTERN HWY & TURTON ST | Three-way | 1153.99 | 35.52 | Med | Med | Green |
| Built-Up Non-Signal | 14793 | GREAT EASTERN HWY & CALE ST | Four-way | 986.08 | 41.57 | Med | Med | Green |

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| Built-Up Non-Signal | 14846 | GREAT EASTERN HWY & MATHOURA ST | Three-way | 938.56 | 43.68 | Med | Med | Green |
| Built-Up Non-Signal | 119015 | COCKBURN RD & RUSSELL RD (WEST) | Three-way | 1283.29 | 30.86 | Med | Med | Green |
| Built-Up Non-Signal | 13863 | LEACH HWY & WILKINSON ST | Three-way | 1198.89 | 31.97 | Med | Med | Green |
| Built-Up Non-Signal | 14122 | CANNING HWY & CALE ST (A) | Three-way | 1222.14 | 31.36 | Med | Med | Green |
| Built-Up Non-Signal | 38826 | ORRONG RD & MERCURY ST | Three-way | 1238.88 | 30.93 | Med | Med | Green |
| Built-Up Non-Signal | 50688 | WANNEROO RD & ELLESMERE ST | Three-way | 932.10 | 41.12 | Med | Med | Green |
| Built-Up Non-Signal | 50969 | GODDARD ST & ORRONG RD | Three-way | 1494.26 | 25.50 | Low-Med | Med | Green |
| Built-Up Non-Signal | 47057 | SOUTH ST & PRESCOTT DR | Three-way | 986.24 | 37.57 | Med | Med | Green |
| Built-Up Non-Signal | 55053 | WANNEROO RD & RAVENSWOOD DR | Three-way | 1220.65 | 30.06 | Med | Med | Green |
| Built-Up Non-Signal | 14061 | STIRLING HWY & KINGS PARK AV | Three-way | 1148.36 | 31.17 | Med | Med | Green |
| Built-Up Non-Signal | 4408 | ALBANY HWY & BURTON ST | Three-way | 1054.25 | 33.46 | Med | Med | Green |
| Built-Up Non-Signal | 13827 | CANNING HWY & MAY ST | Three-way | 869.29 | 40.58 | Med | Med | Green |
| Built-Up Non-Signal | 14022 | STIRLING HWY & WILLIAMS RD | Three-way | 1344.83 | 26.23 | Low-Med | Med | Green |
| Built-Up Non-Signal | 14042 | WANNEROO RD & PARIN RD | Three-way | 985.31 | 35.80 | Med | Med | Green |
| Built-Up Non-Signal | 14289 | GUILDFORD RD & PEARSON ST | Three-way | 878.20 | 40.17 | Med | Med | Green |
| Built-Up Non-Signal | 14770 | GREAT EASTERN HWY & FIRST AV | Three-way | 1012.98 | 34.83 | Med | Med | Green |
| Built-Up Non-Signal | 14858 | ALBANY HWY & CHURCH ST | Three-way | 1028.74 | 34.29 | Med | Med | Green |
| Built-Up Non-Signal | 16607 | LEACH HWY & FIFTH AV | Three-way | 1348.91 | 26.15 | Low-Med | Med | Green |
| Built-Up Non-Signal | 38829 | ORRONG RD & COHN ST (BELMONT) | Three-way | 1118.53 | 31.54 | Med | Med | Green |
| Built-Up Non-Signal | 127282 | WANNEROO RD & AUTOMATIVE DR | Three-way | 874.57 | 40.34 | Med | Med | Green |
| Built-Up Non-Signal | 133201 | GUILDFORD RD & DARBY ST | Three-way | 1071.76 | 32.92 | Med | Med | Green |

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| Built-Up Non-Signal | 139007 | STIRLING HWY & GOLDSWORTHY RD | Three-way | 1235.49 | 28.55 | Low-Med | Med | Green |
| Built-Up Non-Signal | 14704 | BREARLEY AV & FIRST ST | Four-way | 1062.82 | 32.97 | Med | Med | Green |
| Built-Up Non-Signal | 43183 | SOUTH ST & COLLICK ST | Three-way | 978.63 | 35.81 | Med | Med | Green |
| Built-Up Non-Signal | 13801 | STIRLING HWY & STUART ST | Three-way | 1306.78 | 26.54 | Low-Med | Med | Green |
| Built-Up Non-Signal | 14243 | ALBANY HWY & PALMERSTON ST | Three-way | 1198.47 | 28.63 | Low-Med | Med | Green |
| Built-Up Non-Signal | 68661 | SOUTH ST & PLANE TREE GR ALBANY HWY & COOLGARDIE ST | Three-way | 878.62 | 37.99 | Med | Med | Green |
| Built-Up Non-Signal | 14244 | STIRLING HWY & IRVINE ST | Three-way | 1198.47 | 27.23 | Low-Med | Med | Green |
| Built-Up Non-Signal | 13806 | STIRLING HWY & STATION ST | Three-way | 932.12 | 34.58 | Med | Med | Green |
| Built-Up Non-Signal | 13815 | CANNING HWY & WESTBURY CR | Three-way | 1165.19 | 27.66 | Low-Med | Med | Green |
| Built-Up Non-Signal | 13879 | CANNING HWY & ADRIAN ST | Three-way | 869.29 | 37.08 | Med | Med | Green |
| Built-Up Non-Signal | 13903 | WANNEROO RD & HART CT | Three-way | 964.17 | 33.43 | Med | Med | Green |
| Built-Up Non-Signal | 13973 | STIRLING HWY & BRUCE ST | Three-way | 1050.29 | 30.69 | Med | Med | Green |
| Built-Up Non-Signal | 14028 | CANNING HWY & DONEY ST | Three-way | 989.46 | 32.58 | Med | Med | Green |
| Built-Up Non-Signal | 14058 | CANNING HWY & SALISBURY AV | Three-way | 972.43 | 33.15 | Med | Med | Green |
| Built-Up Non-Signal | 14149 | ALBANY HWY & HARVEY ST NORTH | Three-way | 1249.77 | 25.79 | Low-Med | Med | Green |
| Built-Up Non-Signal | 14178 | ALBANY HWY & SAMPSON ST | Three-way | 847.83 | 38.02 | Med | Med | Green |
| Built-Up Non-Signal | 14760 | ALBANY HWY & BURWASH PL & RIVER AV | Three-way | 1063.59 | 30.30 | Med | Med | Green |
| Built-Up Non-Signal | 14768 | GREAT NORTHERN HWY & CHITTERING RD | Unknown | 931.91 | 34.59 | Med | Med | Green |
| Built-Up Non-Signal | 14904 | GREAT EASTERN HWY & BULLARRA RD | Three-way | 981.58 | 32.84 | Med | Med | Green |
| Built-Up Non-Signal | 14929 | GREAT EASTERN HWY & WOLOWRA RD | Three-way | 969.00 | 33.26 | Med | Med | Green |
| Built-Up Non-Signal | 14930 | | Three-way | 969.00 | 33.26 | Med | Med | Green |

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| Built-Up Non-Signal | 38825 | ORRONG RD & FULHAM ST (B) | Three-way | 1238.88 | 26.02 | Low-Med | Med | Green |
| Built-Up Non-Signal | 38834 | ORRONG RD & ORRONG PL | Three-way | 1238.88 | 26.02 | Low-Med | Med | Green |
| Built-Up Non-Signal | 43009 | QUEEN VICTORIA ST & SWAN ST | Three-way | 1079.03 | 29.87 | Med | Med | Green |
| Built-Up Non-Signal | 43158 | SOUTH ST & WILUNA AV | Three-way | 831.78 | 38.75 | Med | Med | Green |
| Built-Up Non-Signal | 43169 | SOUTH ST & MINILYA ST | Three-way | 831.78 | 38.75 | Med | Med | Green |
| Built-Up Non-Signal | 50666 | WANNEROO RD & CLAVERTON ST | Three-way | 1094.21 | 29.46 | Med | Med | Green |
| Built-Up Non-Signal | 54428 | MILL POINT RD & PARKER ST | Three-way | 1047.42 | 30.77 | Med | Med | Green |
| Built-Up Non-Signal | 55052 | WANNEROO RD & WOLLONG PL | Three-way | 819.59 | 39.33 | Med | Med | Green |
| Built-Up Non-Signal | 55609 | KARRINYUP - MORLEY HWY & HILLSBOROUGH DR | Three-way | 1130.26 | 28.52 | Low-Med | Med | Green |
| Built-Up Non-Signal | 133253 | WEST COAST HWY & RESERVE ST | Three-way | 939.18 | 34.32 | Med | Med | Green |
| Built-Up Non-Signal | 50674 | WANNEROO RD & WAUGH ST | Three-way | 932.10 | 32.54 | Med | Low-Med | Green |
| Built-Up Non-Signal | 125840 | WANNEROO RD & KIRKSTALL DR | Three-way | 1164.79 | 26.04 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 55601 | KARRINYUP - MORLEY HWY & WINDSOR AV | Three-way | 826.44 | 35.48 | Med | Low-Med | Green |
| Built-Up Non-Signal | 14160 | LEACH HWY & BEATRICE AV | Three-way | 1043.70 | 26.15 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 43187 | SOUTH ST & LADNER ST | Three-way | 894.91 | 26.38 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 14821 | SOUTH WESTERN HWY & LARSEN RD | Three-way | 692.78 | 33.01 | Med | Low-Med | Green |
| Built-Up Non-Signal | 55051 | WANNEROO RD & SYLVIA ST (BALCATT) | Three-way | 819.59 | 25.09 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 14952 | BROOKTON HWY & HOLDEN RD | Three-way | 549.06 | 35.58 | Med | Low-Med | Green |
| Built-Up Non-Signal | 55613 | KARRINYUP - MORLEY HWY & HUCKLE ST (NORTH) | Three-way | 661.49 | 28.01 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 11028 | BROOKTON HWY & OLD COACH PL | Three-way | 477.26 | 29.57 | Med | Low-Med | Green |
| Built-Up Non-Signal | 12304 | COCKBURN RD & AMITY BVD | Three-way | 524.84 | 26.89 | Low-Med | Low-Med | Green |

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| Built-Up Non-Signal | 42884 | CANNING HWY & HUBBLE ST | Three-way | 519.48 | 27.16 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 14703 | GREAT EASTERN HWY & BULONG AV (A) | Four-way | 1854.79 | 22.10 | Low-Med | Med | Green |
| Built-Up Non-Signal | 154237 | SOUTH ST & H616 - SOUTH ST EAST BOUND | Three-way | 3024.47 | 13.55 | Low-Med | Med | Green |
| Built-Up Non-Signal | 4578 | GUILDFORD RD & PENINSULA RD | Three-way | 1536.96 | 24.93 | Low-Med | Med | Green |
| Built-Up Non-Signal | 14248 | GUILDFORD RD & SLADE ST | Four-way | 1648.60 | 22.10 | Low-Med | Med | Green |
| Built-Up Non-Signal | 4474 | CANNING HWY & HISLOP RD | Three-way | 1692.26 | 20.85 | Low-Med | Med | Green |
| Built-Up Non-Signal | 14166 | GUILDFORD RD & THIRD AV EAST | Four-way | 1661.35 | 21.23 | Low-Med | Med | Green |
| Built-Up Non-Signal | 14217 | ALBANY HWY & DANE ST NORTH & DANE ST SOUTH | Unknown | 1496.35 | 23.58 | Low-Med | Med | Green |
| Built-Up Non-Signal | 4412 | ALBANY HWY & ALBANY HWY | Three-way | 1531.19 | 21.05 | Low-Med | Med | Green |
| Built-Up Non-Signal | 13798 | STIRLING HWY & FAIRLIGHT ST | Three-way | 1306.78 | 24.67 | Low-Med | Med | Green |
| Built-Up Non-Signal | 13847 | STIRLING HWY & CONGDON ST | Three-way | 1370.28 | 23.52 | Low-Med | Med | Green |
| Built-Up Non-Signal | 13999 | STIRLING HWY & KINNINMONT AV | Three-way | 1318.12 | 24.45 | Low-Med | Med | Green |
| Built-Up Non-Signal | 14074 | CANNING HWY & SIMPSON ST | Four-way | 1681.65 | 19.17 | Low-Med | Med | Green |
| Built-Up Non-Signal | 14300 | ALBANY HWY & COCKRAM ST | Three-way | 1530.44 | 21.06 | Low-Med | Med | Green |
| Built-Up Non-Signal | 4574 | WANNEROO RD & CAMBERWELL RD | Three-way | 1512.55 | 20.97 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 14758 | GREAT EASTERN HWY & SWAN ST EAST & WATER ST | Four-way | 2198.27 | 13.97 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 13922 | CANNING HWY & HARRIS RD | Four-way | 1272.23 | 23.84 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 40701 | SOUTH ST & DARIAN DR | Three-way | 1362.47 | 21.51 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 14787 | GREAT EASTERN HWY & HELENA ST | Four-way | 2287.80 | 12.66 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 13970 | CANNING HWY & PRINSEP RD | Four-way | 1234.77 | 22.10 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 76513 | ARMADALE RD & RAILWAY AV | Unknown | 1927.53 | 13.83 | Low-Med | Low-Med | Green |

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| Built-Up Non-Signal | 43178 | SOUTH ST & HINES RD | Four-way | 1246.06 | 19.76 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 14187 | GUILDFORD RD & FERGUSON ST | Four-way | 1414.20 | 16.89 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 70206 | LEACH HWY & MARSHALL RD | Three-way | 1425.82 | 16.56 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 4483 | STIRLING HWY & SMYTH RD | Three-way | 1812.98 | 12.11 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 14048 | WANNEROO RD & TEMPLETON CR | Three-way | 870.06 | 24.80 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 14190 | GREAT EASTERN HWY & CORNWALL ST | Three-way | 1382.25 | 15.61 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 14150 | CANNING HWY & DYSON ST | Four-way | 1649.08 | 12.70 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 119143 | REID HWY & DUFFY RD (SOUTH) | Three-way | 1348.69 | 15.53 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 4429 | GREAT EASTERN HWY & QUEENS RD | Three-way | 964.30 | 21.33 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 13952 | STOCK RD & PEEL RD | Four-way | 978.43 | 21.02 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 14131 | CANNING HWY & PRESTON ST | Three-way | 1277.99 | 16.09 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 14783 | GREAT EASTERN HWY & WILLIAM ST | Four-way | 986.08 | 20.86 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 14133 | CANNING HWY & TODD AV | Three-way | 1277.99 | 15.81 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 13954 | STIRLING HWY & ORD ST | Three-way | 1272.68 | 15.35 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 3616 | WANNEROO RD & NEVILLE DR | Three-way | 1050.29 | 17.64 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 14892 | GREAT EASTERN HWY & VICTORIA PDE | Three-way | 1233.37 | 15.02 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 50670 | WANNEROO RD & ALBERT ST | Four-way | 1443.82 | 12.83 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 132959 | GREAT EASTERN HWY & KEANE ST | Three-way | 747.31 | 23.95 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 14035 | WANNEROO RD & HOCKING RD | Three-way | 973.28 | 18.00 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 14774 | GREAT EASTERN HWY & HARPER ST | Three-way | 1012.98 | 17.30 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 4348 | HUTTON ST ON - H016 STH BOUND & CAPE ST | Three-way | 1007.73 | 17.03 | Low-Med | Low-Med | Green |

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| Built-Up Non-Signal | 14073 | CANNING HWY & KEARNS CR | Three-way | 1125.57 | 15.24 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 14310 | GUILDFORD RD & SHACKLETON ST | Three-way | 878.20 | 19.54 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 14838 | GREAT EASTERN HWY & COPE ST | Three-way | 938.56 | 18.28 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 14127 | CANNING HWY & ALSTON AV (B) | Three-way | 1222.14 | 12.98 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 47056 | SOUTH ST & ROBSON WY | Three-way | 869.06 | 18.25 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 14700 | GUILDFORD RD & PALMERSTON ST | Three-way | 1001.39 | 14.83 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 14866 | ALBANY HWY & RUNDLE ST | Three-way | 1028.74 | 14.44 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 37936 | KARRINYUP - MORLEY HWY & BATH RD | Three-way | 668.14 | 22.23 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 13855 | CANNING HWY & DALGETY ST | Three-way | 869.29 | 16.23 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 13997 | STIRLING HWY & FLORENCE RD | Three-way | 1318.12 | 10.71 | Low | Low-Med | Green |
| Built-Up Non-Signal | 14013 | STIRLING HWY & PORTLAND ST | Three-way | 1344.83 | 10.49 | Low | Low-Med | Green |
| Built-Up Non-Signal | 14044 | CANNING HWY & CLYDESDALE ST | Three-way | 972.43 | 14.51 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 14237 | ALBANY HWY & VICTORIA ST | Three-way | 1198.47 | 11.77 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 14792 | ALBANY HWY & GERALD ST | Three-way | 688.31 | 20.50 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 43175 | SOUTH ST & ETHELWYN ST | Three-way | 944.34 | 14.94 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 44020 | KENWICK LINK & CORDY PL | Three-way | 589.64 | 23.93 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 47058 | SOUTH ST & WINDELYA RD | Three-way | 670.89 | 21.03 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 52392 | WEST COAST HWY & HELSTON AV | Three-way | 751.95 | 18.77 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 55038 | WANNEROO RD & DALEY ST | Three-way | 972.79 | 14.51 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 80700 | KENWICK LINK & OSMOND ST | Three-way | 796.15 | 17.72 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 14174 | GUILDFORD RD & NINTH AV | Three-way | 1071.76 | 11.96 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 50667 | WANNEROO RD & ALMA RD | Three-way | 1094.21 | 11.71 | Low-Med | Low-Med | Green |
| Built-Up Non-Signal | 13808 | COCKBURN RD & ROLLINSON RD | Three-way | 776.57 | 15.20 | Low-Med | Low | Green |

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| Built-Up Non-Signal | 14030 | LEACH HWY & WHEYLAND ST | Three-way | 1091.96 | 10.81 | Low | Low | Green |
| Built-Up Non-Signal | 14781 | ALBANY HWY & PITCHFORD AV | Three-way | 706.25 | 16.72 | Low-Med | Low | Green |
| Built-Up Non-Signal | 14873 | ALBANY HWY & FOSTER RD | Three-way | 1028.74 | 11.48 | Low-Med | Low | Green |
| | | SOUTH ST (WEST BND) & WESTMORLAND DR & WESTMORLAND DR ACCESS | Three-way | 1142.00 | 10.34 | Low | Low | Green |
| Built-Up Non-Signal | 47050 | WANNEROO RD & MABEL ST | Three-way | 932.10 | 12.67 | Low-Med | Low | Green |
| Built-Up Non-Signal | 50676 | WANNEROO RD & MABEL ST | Three-way | 932.10 | 12.67 | Low-Med | Low | Green |
| Built-Up Non-Signal | 14259 | GUILDFORD RD & NEWTON ST | Three-way | 943.24 | 10.36 | Low | Low | Green |
| Built-Up Non-Signal | 43050 | TYDEMAN RD & BRACKS ST | Three-way | 893.43 | 10.93 | Low | Low | Green |
| Built-Up Non-Signal | 43165 | SOUTH ST & YORK ST | Three-way | 831.78 | 11.74 | Low-Med | Low | Green |
| Built-Up Non-Signal | 50686 | WANNEROO RD & CARRINGTON ST | Three-way | 932.10 | 10.48 | Low | Low | Green |
| Built-Up Non-Signal | 55049 | WANNEROO RD & HARRISON ST (STIRLING) | Three-way | 833.61 | 11.72 | Low-Med | Low | Green |
| Built-Up Non-Signal | 55988 | KARRINYUP - MORLEY HWY & MILVERTON AV | Three-way | 672.81 | 14.52 | Low-Med | Low | Green |
| Built-Up Non-Signal | 60108 | GREAT EASTERN HWY & CALE ST | Four-way | 881.91 | 11.08 | Low | Low | Green |
| Built-Up Non-Signal | 14913 | BROOKTON HWY & HILL ST | Three-way | 477.26 | 19.15 | Low-Med | Low | Green |
| Built-Up Non-Signal | 13835 | COCKBURN RD & BEACH RD | Three-way | 524.84 | 16.69 | Low-Med | Low | Green |
| Built-Up Non-Signal | 14278 | GUILDFORD RD & KATANNING ST | Three-way | 838.64 | 10.45 | Low | Low | Green |
| Built-Up Non-Signal | 14862 | ALBANY HWY & CAROLINE ST | Three-way | 663.06 | 13.21 | Low-Med | Low | Green |
| Built-Up Non-Signal | 14872 | ALBANY HWY & LILIAN AV | Three-way | 663.06 | 13.21 | Low-Med | Low | Green |
| Built-Up Non-Signal | 37926 | KARRINYUP - MORLEY HWY & BALLARAT ST | Three-way | 668.14 | 13.11 | Low-Med | Low | Green |
| Built-Up Non-Signal | 43180 | SOUTH ST & STOCKDALE RD | Three-way | 748.17 | 11.71 | Low-Med | Low | Green |
| Built-Up Non-Signal | 52442 | WEST COAST HWY & MARAPANA RD | Three-way | 742.14 | 11.80 | Low-Med | Low | Green |

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| Built-Up Non-Signal | 52475 | WEST COAST HWY & KINGSLAND AV | Three-way | 742.14 | 11.80 | Low-Med | Low | Green |
| Built-Up Non-Signal | 55071 | KARRINYUP - MORLEY HWY & LIGHT ST (SOUTH) | Three-way | 804.48 | 10.89 | Low | Low | Green |
| Built-Up Non-Signal | 55612 | KARRINYUP - MORLEY HWY & MANOFF RD | Three-way | 661.49 | 13.24 | Low-Med | Low | Green |
| Built-Up Non-Signal | 56005 | KARRINYUP - MORLEY HWY & TELFORD CR | Three-way | 759.29 | 11.54 | Low-Med | Low | Green |
| Built-Up Non-Signal | 116226 | TYDEMAN RD & PENSIONER GUARD RD | Three-way | 362.80 | 24.15 | Low-Med | Low | Green |
| Built-Up Non-Signal | 156848 | WANNEROO RD & TADORNA ENT | Three-way | 785.63 | 11.15 | Low | Low | Green |
| Built-Up Non-Signal | 129410 | GUILDFORD RD & EAST PERTH TERMINAL - EAST CAR PARK ACCESS | Three-way | 2947.48 | 7.76 | Low | Low-Med | Green |
| Built-Up Non-Signal | 4421 | GREAT EASTERN HWY & H005 EAST BOUND - H532 | Three-way | 2262.54 | 8.93 | Low | Low-Med | Green |
| Built-Up Non-Signal | 67916 | ALBANY HWY & MASON ST | Unknown | 2088.91 | 8.87 | Low | Low-Med | Green |
| Built-Up Non-Signal | 13836 | STIRLING HWY & AIRLIE ST | Three-way | 3047.57 | 5.63 | Low | Low-Med | Green |
| Built-Up Non-Signal | 4460 | CANNING HWY & H013 EAST BOUND - CAUSEWAY NTH | Three-way | 2645.86 | 5.33 | Low | Low-Med | Green |
| Built-Up Non-Signal | 14154 | CANNING HWY & BANKSIA TCE | Unknown | 1649.08 | 8.56 | Low | Low-Med | Green |
| Built-Up Non-Signal | 82732 | GREAT EASTERN HWY & GEH WEST BOUND ON - H020 WEST | Three-way | 4169.75 | 3.38 | Low | Low-Med | Green |
| Built-Up Non-Signal | 136546 | WANNEROO RD & WORKS DEPOT ACCESS 1 | Three-way | 1975.13 | 7.14 | Low | Low-Med | Green |
| Built-Up Non-Signal | 139537 | ALBANY HWY & CAROUSEL SHOPPING CTR ACCESS | Three-way | 4009.78 | 3.52 | Low | Low-Med | Green |
| Built-Up Non-Signal | 154158 | LEACH HWY & LEACH HWY EAST BOUND ON - H015 | Three-way | 4051.84 | 3.48 | Low | Low-Med | Green |

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| Built-Up Non-Signal | 14012 | STIRLING HWY & THOMAS ST | Three-way | 1344.83 | 9.53 | Low | Low-Med | Green |
| Built-Up Non-Signal | 38833 | ORRONG RD & BRIGGS ST | Four-way | 1634.71 | 7.84 | Low | Low-Med | Green |
| Built-Up Non-Signal | 14119 | LEACH HWY & PULO RD | Three-way | 1657.08 | 7.35 | Low | Low-Med | Green |
| Built-Up Non-Signal | 14242 | ALBANY HWY & TATE ST | Three-way | 1198.47 | 10.17 | Low | Low-Med | Green |
| Built-Up Non-Signal | 11973 | WANNEROO RD & CELESTINE ST | Three-way | 1164.79 | 10.14 | Low | Low | Green |
| Built-Up Non-Signal | 13826 | STIRLING HWY & MCNEIL ST | Three-way | 1165.19 | 10.13 | Low | Low | Green |
| Built-Up Non-Signal | 14287 | ALBANY HWY & GEORGE WY & GEORGE ST STH | Unknown | 2071.94 | 5.70 | Low | Low | Green |
| Built-Up Non-Signal | 4719 | CANNING HWY - MANNING RD & LOCKHART ST (D) & MANNING RD ON - H015 NTH B | Three-way | 1562.08 | 6.25 | Low | Low | Green |
| Built-Up Non-Signal | 13789 | STIRLING HWY & CONGDON ST | Three-way | 1330.03 | 7.34 | Low | Low | Green |
| Built-Up Non-Signal | 13814 | WEST COAST HWY & ROCHDALE RD | Three-way | 1342.44 | 7.28 | Low | Low | Green |
| Built-Up Non-Signal | 14043 | WANNEROO RD & GORMAN ST | Three-way | 985.31 | 9.91 | Low | Low | Green |
| Built-Up Non-Signal | 14138 | CANNING HWY & HOBBS AV | Three-way | 1277.99 | 7.64 | Low | Low | Green |
| Built-Up Non-Signal | 55072 | KARRINYUP - MORLEY HWY & LIGHT ST (NORTH) | Three-way | 1160.74 | 8.42 | Low | Low | Green |
| Built-Up Non-Signal | 68989 | ALBANY HWY & STREICH AV | Three-way | 1120.93 | 8.71 | Low | Low | Green |
| Built-Up Non-Signal | 82916 | GUILDFORD RD & PARK AND RIDE ACCESS RD | Three-way | 2322.03 | 4.21 | Low | Low | Green |
| Built-Up Non-Signal | 50668 | WANNEROO RD & BOURKE ST | Three-way | 1094.21 | 8.35 | Low | Low | Green |
| Built-Up Non-Signal | 4484 | STIRLING HWY & VINCENT ST | Three-way | 1184.20 | 7.40 | Low | Low | Green |
| Built-Up Non-Signal | 13785 | STIRLING HWY & CRAIG ST | Three-way | 1330.03 | 6.59 | Low | Low | Green |
| Built-Up Non-Signal | 13804 | STIRLING HWY & JOHNSTON ST | Three-way | 1306.78 | 6.70 | Low | Low | Green |
| Built-Up Non-Signal | 13840 | STIRLING HWY & BOREHAM ST | Three-way | 1165.19 | 7.52 | Low | Low | Green |
| Built-Up Non-Signal | 13856 | STIRLING HWY & PARRY ST | Three-way | 1453.60 | 6.03 | Low | Low | Green |
| Built-Up Non-Signal | 13861 | CANNING HWY & WALTER ST | Three-way | 869.29 | 10.08 | Low | Low | Green |
| Built-Up Non-Signal | 13942 | STIRLING HWY & WAROONGA | Three-way | 1272.68 | 6.88 | Low | Low | Green |

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| Built-Up Non-Signal | 13943 | CANNING HWY & WADDELL RD | Four-way | 1345.52 | 6.51 | Low | Low | Green |
| Built-Up Non-Signal | 13977 | WANNEROO RD & CHURCH ST | Three-way | 1050.29 | 8.34 | Low | Low | Green |
| Built-Up Non-Signal | 13983 | STIRLING HWY & LOUISE ST | Three-way | 1318.12 | 6.65 | Low | Low | Green |
| Built-Up Non-Signal | 13996 | WANNEROO RD & ARITI AV | Three-way | 1164.79 | 7.52 | Low | Low | Green |
| CANNING HWY & SVC RD | | | | | | | | |
| Built-Up Non-Signal | 14004 | ACCESS | Three-way | 2291.68 | 3.82 | Low | Low | Green |
| Built-Up Non-Signal | 14052 | WANNEROO RD & BLISSETT WY | Three-way | 992.81 | 8.82 | Low | Low | Green |
| Built-Up Non-Signal | 14056 | STIRLING HWY & CRAWLEY AV | Three-way | 1119.91 | 7.82 | Low | Low | Green |
| Built-Up Non-Signal | 14142 | CANNING HWY & RENWICK ST | Three-way | 1152.52 | 7.60 | Low | Low | Green |
| Built-Up Non-Signal | 14201 | GUILDFORD RD & TRAYLEN RD | Three-way | 1071.76 | 8.17 | Low | Low | Green |
| GREAT EASTERN HWY & LODER WY & KOOJAN AV | | | | | | | | |
| Built-Up Non-Signal | 14726 | | Four-way | 922.10 | 9.50 | Low | Low | Green |
| GREAT EASTERN HWY (END DUAL) & SAYER ST | | | | | | | | |
| Built-Up Non-Signal | 14803 | | Unknown | 986.08 | 8.88 | Low | Low | Green |
| SOUTH WESTERN HWY & NETTLETON RD | | | | | | | | |
| Built-Up Non-Signal | 14808 | | Unknown | 1120.53 | 7.82 | Low | Low | Green |
| GREAT EASTERN HWY & SAWYERS RD & LEATHER GRN | | | | | | | | |
| Built-Up Non-Signal | 16586 | | Four-way | 1037.23 | 8.45 | Low | Low | Green |
| Built-Up Non-Signal | 43173 | SOUTH ST & VICTOR ST | Three-way | 944.34 | 9.28 | Low | Low | Green |
| Built-Up Non-Signal | 50665 | WANNEROO RD & EMMERSON ST | Three-way | 1094.21 | 8.01 | Low | Low | Green |
| Built-Up Non-Signal | 50671 | WANNEROO RD & KADINA ST | Three-way | 1094.21 | 8.01 | Low | Low | Green |
| WEST COAST HWY & VENTNOR ST | | | | | | | | |
| Built-Up Non-Signal | 55927 | | Three-way | 863.70 | 10.14 | Low | Low | Green |
| Built-Up Non-Signal | 75572 | WANNEROO RD & SCENIC DR | Three-way | 1164.79 | 7.52 | Low | Low | Green |
| ALBANY HWY & HAY ST & HAY ST CAUSEWAY ACCESS | | | | | | | | |
| Built-Up Non-Signal | 4400 | | Unknown | 1290.45 | 4.72 | Low | Low | Green |
| Built-Up Non-Signal | 13831 | CANNING HWY & STATON RD | Three-way | 869.29 | 7.01 | Low | Low | Green |
| Built-Up Non-Signal | 13845 | STIRLING HWY & CLIVE RD | Three-way | 1370.28 | 4.45 | Low | Low | Green |

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| Built-Up Non-Signal | 13853 | CANNING HWY & WINDSOR RD | Three-way | 869.29 | 7.01 | Low | Low | Green |
| Built-Up Non-Signal | 14006 | LEACH HWY & WINNACOTT ST | Three-way | 1091.96 | 5.58 | Low | Low | Green |
| Built-Up Non-Signal | 14086 | CANNING HWY & ULLAPOOL RD | Three-way | 1324.32 | 4.60 | Low | Low | Green |
| Built-Up Non-Signal | 14130 | CANNING HWY & RYRIE AV | Three-way | 1277.99 | 4.77 | Low | Low | Green |
| Built-Up Non-Signal | 14211 | GUILDFORD RD & ADELIA ST | Three-way | 1071.76 | 5.68 | Low | Low | Green |
| Built-Up Non-Signal | 14239 | ALBANY HWY & WALPOLE ST | Three-way | 1198.47 | 5.08 | Low | Low | Green |
| Built-Up Non-Signal | 14701 | GREAT EASTERN HWY & CENTRAL AV (A) | Four-way | 1854.79 | 3.28 | Low | Low | Green |
| Built-Up Non-Signal | 14709 | GREAT EASTERN HWY & BEN ST | Three-way | 1405.67 | 4.33 | Low | Low | Green |
| Built-Up Non-Signal | 14860 | ALBANY HWY & OTTAWAY ST | Three-way | 1028.74 | 5.92 | Low | Low | Green |
| Built-Up Non-Signal | 43160 | SOUTH ST & NANNINE AV | Three-way | 831.78 | 7.32 | Low | Low | Green |
| Built-Up Non-Signal | 50679 | WANNEROO RD & REDFERN ST | Three-way | 932.10 | 6.54 | Low | Low | Green |
| Built-Up Non-Signal | 50680 | WANNEROO RD & HOBART ST | Three-way | 932.10 | 6.54 | Low | Low | Green |
| Built-Up Non-Signal | 51113 | GUILDFORD RD & GARDINER ST | Three-way | 1340.01 | 4.55 | Low | Low | Green |
| Built-Up Non-Signal | 128465 | WANNEROO RD & DALECROSS AV | Three-way | 1013.39 | 6.01 | Low | Low | Green |
| Built-Up Non-Signal | 4141 | GREAT EASTERN HWY & OLD GREAT NORTHERN HWY | Three-way | 747.31 | 4.08 | Low | Low | Green |
| Built-Up Non-Signal | 4403 | H005 WEST BOUND - SHEPPARTON R & H005 EAST BOUND - H532 | Three-way | 1032.84 | 2.95 | Low | Low | Green |
| Built-Up Non-Signal | 4447 | LEACH HWY & LEACH HWY WEST BOUND ON - H015 | Three-way | 3847.09 | 0.79 | Low | Low | Green |
| Built-Up Non-Signal | 10897 | LEACH HWY & MARJORIE AV | Three-way | 1434.32 | 2.12 | Low | Low | Green |
| Built-Up Non-Signal | 11025 | BROOKTON HWY & MOUNT ST | Unknown | 629.74 | 4.84 | Low | Low | Green |
| Built-Up Non-Signal | 13784 | STIRLING HWY & LESLIE RD | Three-way | 1330.03 | 2.29 | Low | Low | Green |
| Built-Up Non-Signal | 13834 | CANNING HWY & BEDFORD ST | Three-way | 869.29 | 3.50 | Low | Low | Green |
| Built-Up Non-Signal | 13852 | LEACH HWY & CHUDLEIGH ST | Three-way | 1198.89 | 2.54 | Low | Low | Green |
| Built-Up Non-Signal | 13860 | STIRLING HWY & GRANGE ST | Three-way | 1535.74 | 1.98 | Low | Low | Green |

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| Built-Up Non-Signal | 13912 | STIRLING HWY & JOHN ST | Three-way | 1235.49 | 2.47 | Low | Low | Green |
| Built-Up Non-Signal | 13940 | STIRLING HWY & LOFTUS ST | Three-way | 1272.68 | 2.39 | Low | Low | Green |
| Built-Up Non-Signal | 13947 | STIRLING HWY & BULIMBA RD | Three-way | 1272.68 | 2.39 | Low | Low | Green |
| Built-Up Non-Signal | 13962 | STIRLING HWY & MARITA RD | Three-way | 1272.68 | 2.39 | Low | Low | Green |
| Built-Up Non-Signal | 13975 | STIRLING HWY & BROOME ST | Three-way | 1272.68 | 2.39 | Low | Low | Green |
| Built-Up Non-Signal | 14016 | STIRLING HWY & TYRELL ST | Three-way | 1344.83 | 2.26 | Low | Low | Green |
| Built-Up Non-Signal | 14046 | H016 NTH BOUND - HUTTON ST OFF & MCDONALD ST WEST | Three-way | 481.87 | 6.32 | Low | Low | Green |
| Built-Up Non-Signal | 14064 | CANNING HWY & CUNNINGHAM ST | Unknown | 1283.13 | 2.37 | Low | Low | Green |
| Built-Up Non-Signal | 14087 | LEACH HWY & MEDIAN OPENING (WAS DEAN RD) | Unknown | 5485.30 | 0.56 | Low | Low | Green |
| Built-Up Non-Signal | 14124 | CANNING HWY & SAUNDERS ST | Four-way | 1612.62 | 1.89 | Low | Low | Green |
| Built-Up Non-Signal | 14134 | CANNING HWY & BESSELL AV | Three-way | 1277.99 | 2.38 | Low | Low | Green |
| Built-Up Non-Signal | 14143 | CANNING HWY & HENSMAN ST (B) | Three-way | 1152.52 | 2.64 | Low | Low | Green |
| Built-Up Non-Signal | 14167 | GUILDFORD RD & FOURTH AV EAST | Three-way | 1259.07 | 2.42 | Low | Low | Green |
| Built-Up Non-Signal | 14175 | ALBANY HWY & RUSHTON ST NORTH | Three-way | 847.83 | 3.59 | Low | Low | Green |
| Built-Up Non-Signal | 14202 | ALBANY HWY & BOULDER ST | Three-way | 1134.02 | 2.69 | Low | Low | Green |
| Built-Up Non-Signal | 14205 | GUILDFORD RD & GRAFTON RD | Three-way | 1071.76 | 2.84 | Low | Low | Green |
| Built-Up Non-Signal | 14221 | GUILDFORD RD & CROWTHER ST | Three-way | 1140.69 | 2.67 | Low | Low | Green |
| Built-Up Non-Signal | 14225 | GUILDFORD RD & MILNE ST | Unknown | 1505.15 | 2.02 | Low | Low | Green |
| Built-Up Non-Signal | 14233 | GUILDFORD RD & LEAKE ST | Three-way | 1140.69 | 2.67 | Low | Low | Green |
| Built-Up Non-Signal | 14235 | ALBANY HWY & TENNANT ST | Three-way | 1198.47 | 2.54 | Low | Low | Green |
| Built-Up Non-Signal | 14253 | ALBANY HWY & ACTON AV | Three-way | 914.28 | 3.33 | Low | Low | Green |
| Built-Up Non-Signal | 14255 | ALBANY HWY & ALEXANDRA PL | Unknown | 1248.72 | 2.44 | Low | Low | Green |
| Built-Up Non-Signal | 14267 | ALBANY HWY & MILLS ST STH | Three-way | 1054.25 | 2.89 | Low | Low | Green |

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| Built-Up Non-Signal | 14280 | ALBANY HWY & KENT ST | Three-way | 1583.10 | 1.92 | Low | Low | Green |
| Built-Up Non-Signal | 14293 | ALBANY HWY & FLETCHER ST | Three-way | 1570.24 | 1.94 | Low | Low | Green |
| Built-Up Non-Signal | 14314 | ALBANY HWY & SHORT ST | Three-way | 1723.45 | 1.77 | Low | Low | Green |
| Built-Up Non-Signal | 14718 | GREAT EASTERN HWY & IVY ST | Four-way | 1854.79 | 1.64 | Low | Low | Green |
| Built-Up Non-Signal | 14748 | ALBANY HWY & OZICH CT | Three-way | 644.26 | 4.73 | Low | Low | Green |
| Built-Up Non-Signal | 14804 | ALBANY HWY & VERNA ST | Three-way | 688.31 | 4.43 | Low | Low | Green |
| Built-Up Non-Signal | 14869 | ALBANY HWY & ARMITAGE RD | Three-way | 1028.74 | 2.96 | Low | Low | Green |
| Built-Up Non-Signal | 14875 | ALBANY HWY & ECKO RD | Three-way | 663.06 | 4.59 | Low | Low | Green |
| Built-Up Non-Signal | 37929 | KARRINYUP - MORLEY HWY & BAGSHOT PL | Three-way | 668.14 | 4.56 | Low | Low | Green |
| Built-Up Non-Signal | 37932 | KARRINYUP - MORLEY HWY & LUDLANDS ST | Three-way | 668.14 | 4.56 | Low | Low | Green |
| Built-Up Non-Signal | 40630 | SOUTH ST & PINETREE GULLY RD | Three-way | 1242.34 | 2.45 | Low | Low | Green |
| Built-Up Non-Signal | 43159 | SOUTH ST & CEASAR ST | Three-way | 831.78 | 3.66 | Low | Low | Green |
| Built-Up Non-Signal | 50684 | WANNEROO RD & GILL ST | Three-way | 932.10 | 3.27 | Low | Low | Green |
| Built-Up Non-Signal | 50687 | WANNEROO RD & ELMA ST | Three-way | 932.10 | 3.27 | Low | Low | Green |
| Built-Up Non-Signal | 50798 | WEST COAST HWY & CHALLENGER PDE | Three-way | 742.14 | 4.10 | Low | Low | Green |
| Built-Up Non-Signal | 54231 | NICHOLSON RD & THOMAS RD | Three-way | 657.22 | 4.63 | Low | Low | Green |
| Built-Up Non-Signal | 55608 | KARRINYUP - MORLEY HWY & KNIGHT AV | Three-way | 727.86 | 4.18 | Low | Low | Green |
| Built-Up Non-Signal | 56007 | KARRINYUP - MORLEY HWY & ALBERT ST | Three-way | 759.29 | 4.01 | Low | Low | Green |
| Built-Up Non-Signal | 68289 | GUILDFORD RD & KENILWORTH ST | Three-way | 1071.76 | 2.84 | Low | Low | Green |
| Built-Up Non-Signal | 68549 | WEST COAST HWY & CHALLENGER PDE | Three-way | 751.95 | 4.05 | Low | Low | Green |

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| Built-Up Non-Signal | 68621 | GREAT EASTERN HWY & LILIAN GR | Three-way | 1405.67 | 2.17 | Low | Low | Green |
| Built-Up Non-Signal | 75573 | STIRLING HWY & CHURCH L | Three-way | 1162.25 | 2.62 | Low | Low | Green |
| Built-Up Non-Signal | 78701 | STIRLING HWY & AVION WY | Three-way | 1162.25 | 2.62 | Low | Low | Green |
| Built-Up Non-Signal | 78818 | VINCENT ST ON - H016 STH BOUND & VINCENT ST | Three-way | 334.64 | 9.10 | Low | Low | Green |
| Built-Up Non-Signal | 80531 | KARRINYUP - MORLEY HWY & NORTH BEACH DR (ACCESS) | Three-way | 759.29 | 4.01 | Low | Low | Green |
| Built-Up Non-Signal | 80722 | WEST COAST HWY & SEAWARD AV | Three-way | 853.81 | 3.57 | Low | Low | Green |
| Built-Up Non-Signal | 81637 | ORRONG RD & TREASURE RD NORTH | Three-way | 876.09 | 3.48 | Low | Low | Green |
| Built-Up Non-Signal | 81641 | BANKSIA RD & ORRONG RD | Three-way | 876.09 | 3.48 | Low | Low | Green |
| Built-Up Non-Signal | 82730 | CANNING HWY & ALBANY HWY ON - H013 WEST BOUN | Three-way | 2907.90 | 1.05 | Low | Low | Green |
| Built-Up Non-Signal | 82740 | GREAT EASTERN HWY & GEH EAST BOUND ON - H020 WEST | Three-way | 4212.97 | 0.72 | Low | Low | Green |
| Built-Up Non-Signal | 116924 | WEST COAST HWY & ALFRED RD WEST - ARMY | Three-way | 1042.66 | 2.92 | Low | Low | Green |
| Built-Up Non-Signal | 119016 | COCKBURN RD & RUSSELL RD (WEST) & QUILL WY | Three-way | 524.84 | 5.80 | Low | Low | Green |
| Built-Up Non-Signal | 119066 | CANNING HWY & ALNESS ST | Three-way | 1183.30 | 2.57 | Low | Low | Green |
| Built-Up Non-Signal | 119140 | REID HWY & EVERINGHAM ST (NORTH) | Three-way | 1016.66 | 3.00 | Low | Low | Green |
| Built-Up Non-Signal | 119152 | ALBANY HWY & HAY ST | Three-way | 984.14 | 3.09 | Low | Low | Green |
| Built-Up Non-Signal | 125844 | ALBANY HWY & SEVENOAKS ST | Three-way | 563.55 | 5.40 | Low | Low | Green |
| Built-Up Non-Signal | 139578 | RUSSELL RD (WEST) & WASTEWATER TREATMENT PLANT ACCESS | Three-way | 542.93 | 5.61 | Low | Low | Green |

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| Built-Up Non-Signal | 164783 | COCKBURN RD & OCEAN RD | Three-way | 393.61 | 7.74 | Low | Low | Green |
| Built-Up Non-Signal | 174149 | REID HWY & YULE AV | Three-way | 924.73 | 3.29 | Low | Low | Green |
| Built-Up Non-Signal | 177022 | COCKBURN RD & BULL RD | Three-way | 683.26 | 4.46 | Low | Low | Green |
| Built-Up Roundabout | 139158 | TONKIN HWY (NTH BND) OFF & CORFIELD ST & TONKIN HWY (NTH BND) ON | Unknown | 413.75 | 167.91 | High | Med-High | Red |
| Built-Up Roundabout | 139162 | TONKIN HWY (STH BND) OFF & CORFIELD ST & TONKIN HWY (STH BND) ON | Unknown | 567.76 | 101.33 | Med-High | Med-High | Red |
| Built-Up Roundabout | 119133 | ENNIS AV NTH - SAFETY BAY RD & SAFETY BAY RD & SAFETY BAY RD - ENNIS AV NTH | Four-way | 1245.43 | 35.47 | Med | Med-High | Red |
| Built-Up Roundabout | 119125 | ENNIS AV STH - SAFETY BAY RD W & SAFETY BAY RD & SAFETY BAY RD - ENNIS AV STH | Unknown | 447.39 | 75.21 | Med-High | Med | Orange |
| Built-Up Roundabout | 119128 | SAFETY BAY RD WEST - H719 & SAFETY BAY RD | Three-way | 991.55 | 35.36 | Med | Med | Green |
| Built-Up Roundabout | 14312 | GREAT EASTERN HWY & BOULDER AV (A) | Unknown | 1368.10 | 23.56 | Low-Med | Med | Green |
| Built-Up Roundabout | 43156 | SOUTH ST & FIELD ST | Unknown | 1097.54 | 29.37 | Low-Med | Med | Green |
| Built-Up Roundabout | 149992 | KAREL AV & ROE HWY EAST BND OFF & ON RAMPS | Unknown | 779.94 | 20.75 | Low-Med | Low-Med | Green |
| Built-Up Roundabout | 180982 | KARRINYUP MORLEY HWY & OVAL #3 ACCESS RD | Unknown | 1004.16 | 13.30 | Low-Med | Low-Med | Green |
| Built-Up Roundabout | 119127 | H716 - SAFETY BAY RD EAST & SAFETY BAY RD | Three-way | 882.76 | 13.53 | Low-Med | Low | Green |
| Built-Up Roundabout | 13998 | CANNING HWY & REDCOURT ST | Unknown | 1181.61 | 10.11 | Low | Low | Green |
| Built-Up Roundabout | 116259 | COCKBURN RD & EMPLACEMENT CR | Unknown | 1024.69 | 11.65 | Low-Med | Low | Green |

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| Built-Up Roundabout | 150013 | KAREL AV & ROE HWY WEST BND OFF & ON RAMPS | Unknown | 992.36 | 7.13 | Low | Low | Green |
| Built-Up Roundabout | 4497 | H646 & H400 | Three-way | 2113.66 | 3.16 | Low | Low | Green |
| Built-Up Roundabout | 13960 | STIRLING HWY & ROBINSON ST SOUTH | Unknown | 1679.32 | 3.98 | Low | Low | Green |
| Built-Up Roundabout | 14719 | ALBANY HWY & BECKENHAM ST | Unknown | 866.65 | 7.71 | Low | Low | Green |
| Built-Up Roundabout | 55602 | KARRINYUP - MORLEY HWY & WALNEY AV | Unknown | 1169.40 | 5.72 | Low | Low | Green |
| Built-Up Roundabout | 155488 | H400 & RIVERSIDE DR | Three-way | 1899.20 | 3.52 | Low | Low | Green |
| Built-Up Roundabout | 211903 | ALBANY HWY & HAY ST CAUSEWAY ACCESS | Three-way | 1137.13 | 3.73 | Low | Low | Green |
| Built-Up Roundabout | 14152 | ARMADALE RD & FRASER RD | Unknown | 1112.46 | 1.27 | Low | Low | Green |
| Built-Up Roundabout | 115514 | ABERNETHY RD & H017 ON RAMP | Three-way | 1347.34 | 1.05 | Low | Low | Green |
| Built-Up Roundabout | 154171 | H557 & BULLCREEK STATION BUS EAST ENTRY | Unknown | 297.47 | 4.76 | Low | Low | Green |
| Built-Up Roundabout | 203691 | GREAT EASTERN HWY & LEAKE ST | Unknown | 3075.83 | 0.46 | Low | Low | Green |
| Open Signal | 14261 | REID HWY & BEECHBORO RD NORTH | Four-way | 2314.13 | 180.89 | High | High | Black |
| Open Signal | 14184 | ARMADALE RD & WARTON RD | Three-way | 790.82 | 252.34 | High | High | Black |
| Open Signal | 141661 | TONKIN HWY & CHAMPION DR | Three-way | 668.56 | 298.38 | High | High | Black |
| Open Signal | 14902 | ROE HWY & MORRISON RD & MORRISON RD | Four-way | 1141.09 | 170.47 | High | High | Black |
| Open Signal | 14241 | TONKIN HWY & BENARA RD | Four-way | 2522.55 | 153.09 | High | High | Black |
| Open Signal | 4543 | TONKIN HWY & HORRIE MILLER DR & KEWDALE RD | Four-way | 3185.22 | 106.62 | High | High | Black |
| Open Signal | 4552 | ROE HWY & KALAMUNDA RD | Four-way | 2622.48 | 117.37 | High | High | Black |
| Open Signal | 4143 | PATTERSON RD & ENNIS AV | Unknown | 2361.60 | 119.53 | High | High | Black |

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| Open Signal | 77885 | REID HWY & ALTONE RD | Four-way | 1694.96 | 145.01 | High | High | Black |
| Open Signal | 1544 | ENNIS AV & ROCKINGHAM STATION ACCESS RD & RAE RD | Four-way | 2362.26 | 100.92 | Med-High | High | Black |
| Open Signal | 10142 | ROCKINGHAM RD & ANKETELL RD | Three-way | 1804.63 | 108.22 | High | High | Black |
| Open Signal | 4019 | GREAT NORTHERN HWY & WEST SWAN RD | Three-way | 1442.12 | 113.02 | High | High | Black |
| Open Signal | 4546 | TONKIN HWY & HALE RD | Four-way | 3388.85 | 89.50 | Med-High | High | Black |
| Open Signal | 13875 | WANNEROO RD & JOONDALUP DR | Four-way | 3252.25 | 85.73 | Med-High | High | Black |
| Open Signal | 4547 | TONKIN HWY & WELSHPOOL RD EAST | Four-way | 3369.90 | 81.12 | Med-High | High | Black |
| Open Signal | 14176 | REID HWY & MALAGA DR | Four-way | 3023.79 | 89.20 | Med-High | High | Black |
| Open Signal | 4035 | WANNEROO RD & OCEAN REEF RD | Four-way | 3380.48 | 77.88 | Med-High | High | Black |
| Open Signal | 13837 | ENNIS AV & ELANORA DR & GRANGE DR | Four-way | 2602.14 | 97.22 | Med-High | High | Black |
| Open Signal | 60436 | MARMION AV & WHITFORDS AV | Four-way | 2834.50 | 88.13 | Med-High | High | Black |
| Open Signal | 60446 | MARMION AV & OCEAN REEF RD | Four-way | 2842.95 | 80.09 | Med-High | High | Black |
| Open Signal | 4121 | STOCK RD & SOUTH ST | Four-way | 3211.45 | 67.77 | Med-High | High | Black |
| Open Signal | 13807 | ENNIS AV & CARVIE ST & COUNCIL AV | Four-way | 2471.88 | 81.31 | Med-High | High | Black |
| Open Signal | 138650 | TONKIN HWY & THOMAS RD | Four-way | 1899.25 | 90.34 | Med-High | High | Black |
| Open Signal | 4116 | STOCK RD & BEELIAR DR | Four-way | 2296.41 | 67.90 | Med-High | High | Black |
| Open Signal | 13935 | ROCKINGHAM RD & RUSSELL RD (WEST) | Three-way | 1856.45 | 83.68 | Med-High | High | Black |
| Open Signal | 36814 | ARMADALE RD & SEVILLE DR | Three-way | 1170.26 | 112.00 | High | High | Red |
| Open Signal | 60435 | MARMION AV & BANKS AV | Three-way | 857.28 | 110.10 | High | High | Red |

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| Open Signal | 124368 | GREAT EASTERN HWY BYPASS & ABERNETHY RD | Unknown | 776.06 | 120.30 | High | High | Red |
| Open Signal | 60428 | MARMION AV & HEPBURN AV | Four-way | 2591.50 | 92.13 | Med-High | High | Red |
| Open Signal | 4418 | STOCK RD & PHOENIX RD | Four-way | 2144.32 | 64.85 | Med-High | High | Red |
| Open Signal | 14785 | ROE HWY & BERKSHIRE RD | Three-way | 2211.26 | 62.63 | Med-High | High | Red |
| Open Signal | 137952 | TONKIN HWY & MILLS RD EAST & MILLS RD WEST | Four-way | 2024.55 | 62.54 | Med-High | High | Red |
| Open Signal | 13881 | PATTERSON RD & KWINANA BEACH RD | Three-way | 1368.09 | 62.14 | Med-High | Med-High | Red |
| Open Signal | 4541 | TONKIN HWY & COLLIER RD | Four-way | 3802.14 | 59.21 | Med-High | High | Red |
| Open Signal | 14238 | TONKIN HWY & REID HWY | Four-way | 5276.32 | 37.61 | Med | High | Red |
| Open Signal | 14827 | ROE HWY & GREAT EASTERN HWY BYPASS | Unknown | 4780.97 | 39.86 | Med | High | Red |
| Open Signal | 4456 | LEACH HWY & WELSHPOOL RD | Four-way | 3740.29 | 40.25 | Med | High | Red |
| Open Signal | 77884 | REID HWY & LORD ST | Three-way | 2558.60 | 55.86 | Med-High | High | Red |
| Open Signal | 55987 | KARRINYUP - MORLEY HWY & WEST COAST HWY & KARRINYUP RD & MARMION AV | Four-way | 2711.77 | 51.16 | Med | High | Red |
| Open Signal | 137011 | TONKIN HWY & RANFORD RD | Four-way | 2603.39 | 50.74 | Med | High | Red |
| Open Signal | 4548 | TONKIN HWY & KELVIN RD | Four-way | 2241.51 | 58.78 | Med-High | High | Red |
| Open Signal | 4754 | REID HWY & MARMION AV & NORTH BEACH RD | Four-way | 2451.78 | 53.64 | Med-High | High | Red |
| Open Signal | 14745 | GREAT EASTERN HWY BYPASS & KALAMUNDA RD | Four-way | 2409.52 | 40.29 | Med | High | Red |
| Open Signal | 137008 | TONKIN HWY & ARMADALE RD | Four-way | 2281.70 | 41.26 | Med | High | Red |
| Open Signal | 4540 | TONKIN HWY & MORLEY DR & KARRINYUP - MORLEY HWY | Four-way | 5822.73 | 35.62 | Med | High | Red |
| Open Signal | 4317 | ENNIS AV & DIXON RD | Four-way | 3145.95 | 25.83 | Low-Med | Med-High | Red |
| Open Signal | 13979 | STOCK RD & SPEARWOOD AV | Four-way | 2663.33 | 22.02 | Low-Med | Med-High | Red |

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| Open Signal | 4057 | ROCKINGHAM RD & COCKBURN RD | Three-way | 1813.54 | 27.48 | Low-Med | Med-High | Red |
| Open Signal | 4115 | STOCK RD & FORREST RD | Four-way | 1970.73 | 23.80 | Low-Med | Med-High | Red |
| Open Signal | 56019 | MARMION AV & BEACH RD | Three-way | 1412.65 | 33.21 | Med | Med-High | Red |
| Open Signal | 10143 | ROCKINGHAM RD & MASON RD | Three-way | 979.99 | 41.88 | Med | Med | Green |
| Open Signal | 138649 | TONKIN HWY & ROWLEY RD | Four-way | 762.99 | 42.24 | Med | Med | Green |
| Open Signal | 4056 | ROCKINGHAM RD & THOMAS RD | Unknown | 3939.22 | 10.98 | Low | Med | Green |
| Open Signal | 60422 | MARMION AV & WARWICK RD | Unknown | 2113.26 | 18.71 | Low-Med | Med | Green |
| Open Signal | 14795 | GREAT EASTERN HWY BYPASS & STIRLING CR | Four-way | 1925.38 | 19.79 | Low-Med | Med | Green |
| Open Signal | 10144 | MANDURAH RD & PAGANONI RD | Three-way | 1794.64 | 19.60 | Low-Med | Med | Green |
| Open Signal | 13961 | STOCK RD & BARRINGTON ST | Four-way | 1913.60 | 10.33 | Low | Low-Med | Green |
| Open Signal | 3528 | MANDURAH RD & SINGLETON BEACH RD & REDWOOD AV | Three-way | 771.78 | 23.23 | Low-Med | Low-Med | Green |
| Open Signal | 46459 | THOMAS RD & GILMORE AV | Unknown | 1603.22 | 11.18 | Low | Low-Med | Green |
| Open Signal | 13902 | ENNIS AV & MANDURAH RD & STAKEHILL RD WEST | Four-way | 2527.17 | 6.66 | Low | Low-Med | Green |
| Open Signal | 13919 | ROCKINGHAM RD & BEARD ST & LEE RD | Four-way | 2195.41 | 4.01 | Low | Low | Green |
| Open Signal | 4032 | ROCKINGHAM RD (STH BND) & MANDURAH RD & PATTERSON RD (STH BND) | Four-way | 2273.84 | 2.58 | Low | Low | Green |
| Open Signal | 150512 | PATTERSON RD (NTH BND) & ROCKINGHAM RD (NTH BND) & MANDURAH RD | Three-way | 816.93 | 7.19 | Low | Low | Green |
| Open Non-Signal | 138328 | ENNIS AV (NTH BND) & PORT KENNEDY DR | Four-way | 1538.38 | 305.05 | High | High | Black |
| Open Non-Signal | 4549 | TONKIN HWY & GOSNELLS RD WEST | Three-way | 1700.49 | 237.80 | High | High | Black |

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| Open Non-Signal | 36346 | ARMADALE RD & EIGHTH RD | Three-way | 1470.23 | 160.56 | High | High | Black |
| Open Non-Signal | 75571 | ENNIS AV & WILLMOTT DR | Unknown | 967.98 | 226.54 | High | High | Black |
| Open Non-Signal | 4018 | GREAT NORTHERN HWY & RUTLAND RD | Three-way | 789.65 | 272.74 | High | High | Black |
| Open Non-Signal | 54070 | KARGOTICH RD & THOMAS RD | Unknown | 579.39 | 336.45 | High | High | Black |
| Open Non-Signal | 80578 | ENNIS AV & ROYAL PALM DR | Three-way | 842.57 | 203.26 | High | High | Black |
| Open Non-Signal | 36770 | ARMADALE RD & GRIBBLE AV | Three-way | 523.76 | 304.54 | High | High | Black |
| Open Non-Signal | 14934 | TOODYAY RD & CAMPERSIC RD | Three-way | 428.26 | 261.88 | High | High | Black |
| Open Non-Signal | 15015 | GREAT EASTERN HWY & OLD NORTHAM RD | Three-way | 310.12 | 324.44 | High | High | Black |
| Open Non-Signal | 15001 | GREAT EASTERN HWY & RAILWAY TCE WEST | Three-way | 532.63 | 181.54 | High | High | Black |
| Open Non-Signal | 46412 | THOMAS RD & MEDINA AV | Three-way | 495.38 | 195.20 | High | High | Black |
| Open Non-Signal | 60434 | MARMION AV & COOK AV | Three-way | 1447.77 | 127.17 | High | High | Black |
| Open Non-Signal | 60442 | MARMION AV & MULLALOO DR | Three-way | 1602.14 | 95.01 | Med-High | High | Black |
| Open Non-Signal | 60438 | MARMION AV & CORAL ST | Three-way | 890.45 | 135.85 | High | High | Black |
| Open Non-Signal | 14920 | GREAT NORTHERN HWY & WARBROOK RD | Three-way | 712.84 | 135.65 | High | High | Black |
| Open Non-Signal | 4545 | ROE HWY & H017 STH BOUND - ROE HWY OFF & ROE HWY ON - H017 STH BOUND | Unknown | 3919.27 | 60.70 | Med-High | High | Black |
| Open Non-Signal | 60424 | MARMION AV & SEACREST DR | Three-way | 1781.85 | 71.62 | Med-High | High | Black |
| Open Non-Signal | 60431 | MARMION AV & FLINDERS AV | Three-way | 857.28 | 161.33 | High | High | Red |
| Open Non-Signal | 36784 | ARMADALE RD & TAIT ST | Three-way | 523.76 | 212.76 | High | High | Red |
| Open Non-Signal | 56021 | MARMION AV & BEACH RD WEST | Three-way | 938.54 | 128.39 | High | High | Red |
| Open Non-Signal | 14970 | GREAT EASTERN HWY & PARK RD & HARDEY RD | Four-way | 1077.54 | 105.28 | Med-High | High | Red |
| Open Non-Signal | 13828 | WANNEROO RD & FLYNN DR | Three-way | 901.46 | 105.01 | Med-High | High | Red |

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| Open Non-Signal | 60429 | MARMION AV & Warburton Av | Three-way | 857.28 | 96.56 | Med-High | Med-High | Red |
| Open Non-Signal | 10412 | GREAT EASTERN HWY & COPPIN RD | Four-way | 714.40 | 111.87 | High | Med-High | Red |
| Open Non-Signal | 4021 | SOUTH WESTERN HWY & JARRAHDAL RD & SHANLEY RD | Four-way | 729.48 | 107.76 | High | Med-High | Red |
| Open Non-Signal | 13874 | MANDURAH RD & SURF DR | Three-way | 781.65 | 92.50 | Med-High | Med-High | Red |
| Open Non-Signal | 13967 | STOCK RD & COUNSEL RD | Three-way | 594.72 | 112.77 | High | Med-High | Red |
| Open Non-Signal | 14335 | WANNEROO RD & ROMEO RD & KAROBORUP RD | Four-way | 513.42 | 126.80 | High | Med-High | Red |
| Open Non-Signal | 60432 | MARMION AV & GILES AV | Three-way | 857.28 | 75.94 | Med-High | Med-High | Red |
| Open Non-Signal | 46745 | THOMAS RD & MCLAUGHLAN RD | Three-way | 663.51 | 97.16 | Med-High | Med-High | Red |
| Open Non-Signal | 54317 | CUMMING RD & THOMAS RD | Three-way | 657.22 | 98.09 | Med-High | Med-High | Red |
| Open Non-Signal | 80525 | GREAT EASTERN HWY & WANDEARA CR | Three-way | 532.63 | 121.03 | High | Med-High | Red |
| Open Non-Signal | 12316 | ARMADALE RD & LIDDELOW RD | Three-way | 843.09 | 74.90 | Med-High | Med-High | Red |
| Open Non-Signal | 14329 | WANNEROO RD & PIPIDINNY RD | Three-way | 360.61 | 132.25 | High | Med-High | Red |
| Open Non-Signal | 75559 | ROE HWY & TONKIN HWY RAMPS | Unknown | 4460.89 | 39.17 | Med | High | Red |
| Open Non-Signal | 60421 | MARMION AV & FREEMAN WY | Three-way | 1605.25 | 58.97 | Med-High | High | Red |
| Open Non-Signal | 147793 | TONKIN HWY & FORREST RD (EAST) | Three-way | 1224.93 | 71.65 | Med-High | Med-High | Red |
| Open Non-Signal | 13887 | MANDURAH RD & ANSTEY RD | Three-way | 1280.94 | 58.84 | Med-High | Med-High | Red |
| Open Non-Signal | 60433 | MARMION AV & FORREST RD | Three-way | 857.28 | 69.78 | Med-High | Med-High | Red |
| Open Non-Signal | 4434 | GREAT EASTERN HWY & DARLINGTON RD | Three-way | 982.06 | 52.55 | Med-High | Med-High | Red |
| Open Non-Signal | 4054 | GREAT EASTERN HWY & CHIDLOW - YORK | Three-way | 765.40 | 62.31 | Med-High | Med-High | Red |
| Open Non-Signal | 56024 | MARMION AV & ALMADINE DR | Three-way | 938.54 | 50.81 | Med | Med-High | Red |

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| Open Non-Signal | 60430 | MARMION AV & MCWHAIE RD | Three-way | 857.28 | 55.63 | Med-High | Med-High | Red |
| Open Non-Signal | 60439 | MARMION AV & ALBION ST | Three-way | 890.45 | 53.56 | Med-High | Med-High | Red |
| Open Non-Signal | 60423 | MARMION AV & MARRI RD | Three-way | 1408.65 | 36.64 | Med | Med-High | Red |
| Open Non-Signal | 13813 | ENNIS AV (STH BND) & UNNARO ST | Four-way | 1351.49 | 36.01 | Med | Med-High | Red |
| Open Non-Signal | 15019 | GREAT EASTERN HWY & OLD NORTHAM RD | Three-way | 324.24 | 111.49 | High | Med | Orange |
| Open Non-Signal | 3618 | SOUTH WESTERN HWY & KINGSBURY DR | Three-way | 271.44 | 121.09 | High | Med | Orange |
| Open Non-Signal | 10244 | GREAT EASTERN HWY & WOOROLOO PRISON FARM ACCESS RD | Three-way | 324.24 | 99.41 | Med-High | Med | Orange |
| Open Non-Signal | 14836 | SOUTH WESTERN HWY & KEIRNAN ST | Three-way | 265.83 | 121.25 | High | Med | Orange |
| Open Non-Signal | 14931 | TOODYAY RD & WILSON RD | Three-way | 428.26 | 75.26 | Med-High | Med | Orange |
| Open Non-Signal | 15021 | GREAT EASTERN HWY & LINLEY VALLEY RD | Three-way | 332.35 | 96.98 | Med-High | Med | Orange |
| Open Non-Signal | 155582 | SOUTH WESTERN HWY & CLONDYKE DR | Three-way | 265.83 | 116.30 | High | Low-Med | Orange |
| Open Non-Signal | 116780 | THOMAS RD & BOMBAY BVD | Three-way | 657.22 | 55.01 | Med-High | Med | Orange |
| Open Non-Signal | 10141 | STOCK RD & SHALLCROSS ST | Three-way | 582.68 | 55.32 | Med-High | Med | Orange |
| Open Non-Signal | 10162 | STOCK RD & RALSTON ST | Three-way | 594.72 | 54.20 | Med-High | Med | Orange |
| Open Non-Signal | 14777 | SOUTH WESTERN HWY & FALLS RD & KARNUP RD | Four-way | 566.31 | 56.92 | Med-High | Med | Orange |
| Open Non-Signal | 14906 | GREAT NORTHERN HWY & ORCHARD ST (EAST) | Three-way | 610.87 | 52.76 | Med-High | Med | Orange |
| Open Non-Signal | 14936 | ALBANY HWY & WATERWHEEL RD | Three-way | 460.59 | 69.98 | Med-High | Med | Orange |
| Open Non-Signal | 46733 | THOMAS RD & ABERCROMBIE | Three-way | 495.38 | 65.07 | Med-High | Med | Orange |

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| Open Non-Signal | 14834 | SOUTH WESTERN HWY & NORMAN RD | Three-way | 265.83 | 61.82 | Med-High | Low-Med | Orange |
| Open Non-Signal | 14806 | SOUTH WESTERN HWY & KILN RD | Three-way | 265.83 | 58.15 | Med-High | Low-Med | Orange |
| Open Non-Signal | 60420 | MARMION AV & BURRAGAH WY | Three-way | 906.27 | 47.74 | Med | Med | Green |
| Open Non-Signal | 14825 | GREAT NORTHERN HWY & DALE RD | Three-way | 694.76 | 46.39 | Med | Med | Green |
| Open Non-Signal | 46791 | THOMAS RD & MARRI PARK DR | Three-way | 657.22 | 49.04 | Med | Med | Green |
| Open Non-Signal | 54322 | ANKETELL RD & THOMAS RD | Three-way | 727.18 | 44.33 | Med | Med | Green |
| Open Non-Signal | 14884 | GREAT NORTHERN HWY & NOLAN AV | Three-way | 694.76 | 39.72 | Med | Low-Med | Green |
| Open Non-Signal | 11949 | WANNEROO RD & REINHOLD PL | Three-way | 389.10 | 42.24 | Med | Low-Med | Green |
| Open Non-Signal | 14330 | WANNEROO RD & BERNARD RD | Three-way | 360.61 | 42.87 | Med | Low-Med | Green |
| Open Non-Signal | 80840 | WANNEROO RD & NOWERGUP RD | Three-way | 389.10 | 39.73 | Med | Low-Med | Green |
| Open Non-Signal | 36309 | ARMADALE RD & SEVENTH RD | Three-way | 1097.84 | 36.50 | Med | Med | Green |
| Open Non-Signal | 14840 | TONKIN HWY & GOSNELLS RD EAST | Three-way | 1055.74 | 36.71 | Med | Med | Green |
| Open Non-Signal | 14215 | ARMADALE RD & TAYLOR RD & WRIGHT RD (SOUTH) | Four-way | 973.35 | 36.01 | Med | Med | Green |
| Open Non-Signal | 4117 | STOCK RD & ROCKINGHAM RD | Three-way | 1395.17 | 23.56 | Low-Med | Med | Green |
| Open Non-Signal | 4358 | ROE HWY & MAIDA VALE RD ON - H018 STH BO | Three-way | 2912.11 | 11.07 | Low | Med | Green |
| Open Non-Signal | 4513 | MITCHELL FWY & H016 STH BOUND - RIVERSIDE DR | Three-way | 7030.61 | 4.58 | Low | Med | Green |
| Open Non-Signal | 4536 | MITCHELL FWY & H016 NTH BOUND - CEDRIC ST OFF | Three-way | 6855.64 | 4.70 | Low | Med | Green |
| Open Non-Signal | 13872 | PATTERSON RD & OCEAN ST | Three-way | 863.33 | 37.33 | Med | Med | Green |

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| Open Non-Signal | 14959 | GREAT EASTERN HWY & BILGOMAN RD | Three-way | 916.09 | 35.18 | Med | Med | Green |
| Open Non-Signal | 60445 | MARMION AV & ENSIGN WY | Three-way | 857.51 | 37.59 | Med | Med | Green |
| Open Non-Signal | 77326 | TOODYAY RD & TALBOT RD | Three-way | 865.80 | 37.23 | Med | Med | Green |
| Open Non-Signal | 82400 | GRAHAM FARMER FWY & H666 - H020 WEST BOUND | Three-way | 4647.90 | 6.93 | Low | Med | Green |
| Open Non-Signal | 119082 | KWINANA FWY & H015 STH BND - ARMADALE RD | Three-way | 5236.63 | 6.16 | Low | Med | Green |
| Open Non-Signal | 158852 | MARMION AV & HAMERSLEY GOLF COURSE ACCESS | Three-way | 2046.22 | 15.75 | Low-Med | Med | Green |
| Open Non-Signal | 171993 | KWINANA FWY & H015 NTH BND OFF TO SAFETY BAY RD | Three-way | 2734.35 | 11.79 | Low-Med | Med | Green |
| Open Non-Signal | 179544 | ENNIS AV & SPORTS FACILITIES / TIP ACCESS RD | Three-way | 1480.94 | 21.76 | Low-Med | Med | Green |
| Open Non-Signal | 181510 | PATTERSON RD & WMC NICKEL SMELTER ACCESS | Three-way | 2204.67 | 14.62 | Low-Med | Med | Green |
| Open Non-Signal | 187331 | ROE HWY & ROE HWY NTH BND OFF TO GEH WEST BND | Three-way | 2992.12 | 10.77 | Low | Med | Green |
| Open Non-Signal | 14941 | GREAT EASTERN HWY & OLD YORK RD | Three-way | 1374.10 | 23.21 | Low-Med | Low-Med | Green |
| Open Non-Signal | 60419 | MARMION AV & PARNELL AV | Three-way | 906.27 | 34.77 | Med | Low-Med | Green |
| Open Non-Signal | 60441 | MARMION AV & CRAIGIE DR | Three-way | 1175.34 | 26.81 | Low-Med | Low-Med | Green |
| Open Non-Signal | 60426 | MARMION AV & HARMAN RD | Three-way | 868.96 | 35.58 | Med | Low-Med | Green |
| Open Non-Signal | 36391 | ARMADALE RD & LAKE RD | Three-way | 1288.35 | 21.29 | Low-Med | Low-Med | Green |
| Open Non-Signal | 14988 | GREAT EASTERN HWY & SEABORNE ST | Three-way | 1064.79 | 18.20 | Low-Med | Low-Med | Green |
| Open Non-Signal | 81440 | ROE HWY & CHISHOLM CR | Three-way | 1340.94 | 14.45 | Low-Med | Low-Med | Green |

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| Open Non-Signal | 4335 | CHARLES ST ON - H016 STH BOUND & H020 WEST BOUND - H525 | Three-way | 2117.90 | 7.76 | Low | Low-Med | Green |
| Open Non-Signal | 4532 | MITCHELL FWY & H016 NTH BOUND - HUTTON ST OFF | Three-way | 6596.66 | 2.49 | Low | Low-Med | Green |
| Open Non-Signal | 10176 | PATTERSON RD & WARD RD | Three-way | 863.33 | 19.04 | Low-Med | Low-Med | Green |
| Open Non-Signal | 10409 | GREAT EASTERN HWY & HOMESTEAD RD | Three-way | 770.19 | 21.34 | Low-Med | Low-Med | Green |
| Open Non-Signal | 13888 | MITCHELL FWY & H016 NTH BND - WHITFORDS AV OFF | Three-way | 4950.75 | 3.32 | Low | Low-Med | Green |
| Open Non-Signal | 14882 | ROE HWY & CLAYTON ST ON - H018 STH BOUND | Three-way | 3423.61 | 4.80 | Low | Low-Med | Green |
| Open Non-Signal | 14896 | GREAT NORTHERN HWY & COPLEY RD | Three-way | 610.87 | 26.90 | Low-Med | Low-Med | Green |
| Open Non-Signal | 69575 | PATTERSON RD & ALUMINA RD | Three-way | 863.33 | 19.04 | Low-Med | Low-Med | Green |
| Open Non-Signal | 119151 | WANNEROO RD & OCEAN TAVERN ACC | Three-way | 988.64 | 16.62 | Low-Med | Low-Med | Green |
| Open Non-Signal | 184394 | ROE HWY & GEH ON TO ROE HWY STH BND | Three-way | 3032.95 | 5.42 | Low | Low-Med | Green |
| Open Non-Signal | 14841 | GREAT NORTHERN HWY & HYEM RD | Three-way | 694.76 | 23.11 | Low-Med | Low-Med | Green |
| Open Non-Signal | 13871 | MANDURAH RD & CRYSTALUNA DR | Three-way | 781.65 | 19.78 | Low-Med | Low-Med | Green |
| Open Non-Signal | 14307 | TONKIN HWY & GEH EAST BOUND ON - H017 STH B | Three-way | 3383.10 | 4.57 | Low | Low-Med | Green |
| Open Non-Signal | 14861 | GREAT NORTHERN HWY & HADDRILL RD | Three-way | 694.76 | 22.25 | Low-Med | Low-Med | Green |
| Open Non-Signal | 14907 | ALBANY HWY & BEDFORDALE HILL RD | Three-way | 679.11 | 22.76 | Low-Med | Low-Med | Green |

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| Open Non-Signal | 55932 | WEST COAST HWY & ELLIOTT RD | Three-way | 896.31 | 17.25 | Low-Med | Low-Med | Green |
| Open Non-Signal | 60427 | MARMION AV & GILBERT RD | Three-way | 868.96 | 17.79 | Low-Med | Low-Med | Green |
| Open Non-Signal | 4042 | WANNEROO RD & YANCHEP BEACH RD & INDIAN OCEAN DR | Three-way | 868.42 | 13.97 | Low-Med | Low-Med | Green |
| Open Non-Signal | 128964 | THOMAS RD & COLCHESTER AV | Three-way | 663.51 | 18.29 | Low-Med | Low-Med | Green |
| Open Non-Signal | 4978 | PATTERSON RD & OFFICE RD | Three-way | 1323.03 | 5.92 | Low | Low | Green |
| Open Non-Signal | 54324 | TUART RD & THOMAS RD | Three-way | 657.22 | 11.93 | Low-Med | Low | Green |
| Open Non-Signal | 60443 | MARMION AV & GUNTER GR | Three-way | 857.51 | 9.14 | Low | Low | Green |
| Open Non-Signal | 137667 | ENNIS AV & CARLSTON RD | Three-way | 547.59 | 14.31 | Low-Med | Low | Green |
| Open Non-Signal | 4011 | BROOKTON HWY & CANNING RD | Three-way | 423.33 | 9.26 | Low | Low | Green |
| Open Non-Signal | 4079 | SOUTH WESTERN HWY & ELEVENTH RD | Three-way | 718.58 | 5.45 | Low | Low | Green |
| Open Non-Signal | 11626 | TOODYAY & LILYDALE RD | Three-way | 284.11 | 13.79 | Low-Med | Low | Green |
| Open Non-Signal | 13917 | ROCKINGHAM RD & LIONEL ST | Three-way | 914.87 | 4.28 | Low | Low | Green |
| Open Non-Signal | 14832 | GREAT NORTHERN HWY & LENNARD ST | Four-way | 916.74 | 4.27 | Low | Low | Green |
| Open Non-Signal | 14954 | GREAT EASTERN HWY & LIONEL RD | Three-way | 969.00 | 4.04 | Low | Low | Green |
| Open Non-Signal | 14993 | GREAT EASTERN HWY & GRANCEY AV | Three-way | 541.41 | 7.24 | Low | Low | Green |
| Open Non-Signal | 60437 | MARMION AV & CYGNET ST | Three-way | 890.45 | 4.40 | Low | Low | Green |
| Open Non-Signal | 60444 | MARMION AV & LINEAR AV | Three-way | 857.51 | 4.57 | Low | Low | Green |
| Open Non-Signal | 148883 | TONKIN HWY NTH BND & HV WEIGH SITE | Three-way | 1626.92 | 2.41 | Low | Low | Green |
| Open Non-Signal | 149535 | OFF RAMP FROM ENNIS AV (NTH BND) & PORT KENNEDY DR | Three-way | 1547.72 | 2.53 | Low | Low | Green |
| Open Non-Signal | 166949 | THOMAS RD & ORELIA AV | Three-way | 663.51 | 5.91 | Low | Low | Green |
| Open Non-Signal | 184389 | ROE HWY & ROE HWY STH BND OFF TO GEH | Three-way | 1989.36 | 1.97 | Low | Low | Green |

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| Open Non-Signal | 184569 | REID HWY & REID HWY EAST BND OFF TO MIRRABOOKA AV | Three-way | 3128.84 | 1.25 | Low | Low | Green |
| Open Non-Signal | 14333 | WANNEROO RD & KAROBORUP RD | Three-way | 672.28 | 0.00 | Low | Low | Green |
| Open Non-Signal | 36679 | ARMADALE RD & ABBEY RD | Three-way | 528.56 | 0.00 | Low | Low | Green |
| Open Roundabout | 14796 | GREAT EASTERN HWY BYPASS & STIRLING CR | Four-way | 813.68 | 103.42 | Med-High | Med-High | Red |
| Open Roundabout | 148903 | H410 & WELD ST | Three-way | 367.51 | 125.66 | High | Med-High | Red |
| Open Roundabout | 148910 | H411 & ARMADALE RD (RT) | Three-way | 1267.85 | 53.65 | Med-High | Med-High | Red |
| Open Roundabout | 148909 | H411 & ARMADALE RD (LT) | Three-way | 1260.27 | 47.72 | Med | Med-High | Red |
| Open Roundabout | 4071 | ROCKINGHAM RD & RUSSELL RD | Three-way | 679.29 | 63.19 | Med-High | Med | Orange |
| Open Roundabout | 11621 | TOODYAY RD & REEN RD | Unknown | 376.38 | 85.64 | Med-High | Med | Orange |
| Open Roundabout | 15003 | TOODYAY RD & RESERVE RD | Unknown | 376.38 | 23.98 | Low-Med | Low | Green |
| Open Roundabout | 218426 | LEACH HWY ON & OFF RAMPS & ABERNETHY RD | Three-way | 2467.33 | 14.50 | Low-Med | Med | Green |
| Open Roundabout | 128212 | MANNING RD - H547 ON & KWINANA FWY NTH BOUND | Unknown | 1854.20 | 17.38 | Low-Med | Med | Green |
| Open Roundabout | 148911 | H411 & ARMADALE RD (LT) | Three-way | 2878.40 | 4.85 | Low | Low-Med | Green |
| Open Roundabout | 214243 | REID HWY & LORD ST | Unknown | 1219.93 | 8.74 | Low | Low | Green |
| Open Roundabout | 10165 | ROCKINGHAM RD (NTH BND) & HURST RD | Unknown | 945.59 | 9.54 | Low | Low | Green |
| Open Roundabout | 220584 | ROE HWY (NORTHBOUND) & TONKIN HWY ON RAMP | Unknown | 3614.80 | 2.50 | Low | Low | Green |
| Open Roundabout | 4000 | TOODYAY & BAILUP RD | Unknown | 208.47 | 17.04 | Low-Med | Low | Green |
| Open Roundabout | 4076 | ALBANY HWY & CANNING DAM RD | Unknown | 278.56 | 12.76 | Low-Med | Low | Green |
| Open Roundabout | 148907 | H410 & ARMADALE RD | Three-way | 1276.71 | 2.78 | Low | Low | Green |
| Open Roundabout | 218425 | LEACH HWY OFF & ON RAMPS AND ABERNETHY RD | Three-way | 2467.33 | 1.44 | Low | Low | Green |

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| Open Roundabout | 193109 | ARMADALE RD & ROSSITER AV | Unknown | 973.35 | 0.00 | Low | Low | Green |
| Open Roundabout | 218447 | TONKIN HWY (NB) & RAMP FROM AIRPORT DR (SB) | Unknown | 5151.21 | 0.00 | Low | Low | Green |
| Low-Speed Signal | 50569 | WELLINGTON ST 124 0116 - H016 & WELLINGTON ST & GEORGE ST | Unknown | 1137.22 | 198.78 | High | High | Black |
| Low-Speed Signal | 50544 | MURRAY ST ON - H016 STH BOUND & GEORGE ST & MURRAY ST | Three-way | 1058.71 | 102.20 | Med-High | High | Black |
| Low-Speed Signal | 50545 | ELDER ST LINK TO H521 & MURRAY ST & ELDER ST | Three-way | 899.43 | 117.43 | High | High | Red |
| Low-Speed Signal | 4987 | H015 STH BOUND - CRANFORD AV & CRANFORD AV | Three-way | 571.55 | 95.56 | Med-High | Med-High | Red |
| Low-Speed Signal | 50567 | H528 - WELLINGTON ST 124 0116 & WELLINGTON ST & ELDER ST | Unknown | 1660.75 | 59.89 | Med-High | High | Red |
| Low-Speed Signal | 14291 | GREAT EASTERN HWY & EPSOM AV | Three-way | 2663.02 | 24.69 | Low-Med | Med-High | Red |
| Low-Speed Signal | 4515 | H016 NTH BOUND - HAY ST OFF & HAY ST & GEORGE ST | Unknown | 1379.15 | 44.87 | Med | Med-High | Red |
| Low-Speed Signal | 4334 | SUTHERLAND ST ON - H016 NTH BO & SUTHERLAND ST | Four-way | 1015.10 | 33.51 | Med | Med | Green |
| Low-Speed Signal | 14227 | GREAT EASTERN HWY & ACTON AV (A) | Three-way | 2579.67 | 0.69 | Low | Low | Green |
| Low-Speed Non-Signal | 4332 | H016 NTH BOUND - MARKET ST OFF & MARKET ST | Three-way | 407.41 | 158.23 | High | Med-High | Red |
| Low-Speed Non-Signal | 143588 | BEACH ST (H056) & BEACH ST | Three-way | 1204.39 | 28.89 | Low-Med | Med | Green |
| Low-Speed Non-Signal | 14279 | GREAT EASTERN HWY & KIMBERLEY ST | Three-way | 2331.04 | 17.51 | Low-Med | Med | Green |

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| Low-Speed Non-Signal | 14281 | GREAT EASTERN HWY & KALGOORLIE ST | Three-way | 2331.04 | 13.83 | Low-Med | Med | Green |
| Low-Speed Non-Signal | 4339 | H016 STH BOUND - JAMES ST OFF & H671 - H528 LINK & JAMES ST WEST | Three-way | 1557.65 | 11.03 | Low | Low-Med | Green |
| Low-Speed Non-Signal | 14284 | GREAT EASTERN HWY & KEYMER ST | Three-way | 2331.04 | 6.27 | Low | Low-Med | Green |
| Low-Speed Non-Signal | 78816 | H016 NTH BOUND - MOUNTS BAY OFF & MOUNTS BAY RD WB | Four-way | 1834.06 | 7.97 | Low | Low-Med | Green |
| Low-Speed Non-Signal | 45570 | CENTRAL RD & BURT ST | Unknown | 3670.23 | 4.68 | Low | Low-Med | Green |
| Low-Speed Non-Signal | 14260 | GREAT EASTERN HWY & HARGREAVES ST | Three-way | 2309.04 | 3.72 | Low | Low | Green |
| Low-Speed Non-Signal | 14219 | GREAT EASTERN HWY & ARMADALE RD | Three-way | 2652.99 | 0.97 | Low | Low | Green |
| Low-Speed Non-Signal | 14224 | GREAT EASTERN HWY & ST KILDA RD (A) | Three-way | 2652.99 | 0.97 | Low | Low | Green |
| Low-Speed Non-Signal | 14290 | GREAT EASTERN HWY & LEAKE ST | Three-way | 2331.04 | 1.10 | Low | Low | Green |