



Government of **Western Australia**
Department of **Transport**

Safe Active Streets Program:

BELMONT



Interim Evaluation Report – 2023



CONTENTS

- What is the Safe Active Streets Pilot Program? 3
- Why we collect data 4
- City of Belmont, Safe Active Street..... 5
 - Safe Active Street Map..... 6
- Evaluation process..... 7
- Video surveys..... 7
- Pneumatic tube counts 8
- Key insights 9
 - Bike riding activity 9
 - Vehicle traffic volumes and speeds 9
- Summary 11
- Further information 12
- Appendix 13
 - Average weekday and weekend bike riding activity 13
 - Daily average vehicle volumes 14
 - Daily average (85th percentile) vehicle speeds..... 14



WHAT IS THE SAFE ACTIVE STREETS PILOT PROGRAM?

The Department of Transport’s (DoT) Safe Active Streets Pilot Program commenced in 2015, and since that time has seen the construction of 12 safe active streets across Perth and regional WA, with eight completed within the program period that will form part of the evaluation of the pilot program.

Developed in partnership with local government, safe active streets are active travel routes on quiet local streets, where speeds have been reduced to 30 km/hr to allow for a safer shared street space.

Other treatments such as narrowing road widths, slow points and intersection changes on the streets can help to create low speed residential precincts. With lower vehicle speeds, the streets aim to improve amenity for the community and are much safer for all users, such as people walking, bike riders of all ages and abilities and people driving.

Safe active street routes are also chosen as they form part of wider bicycle networks, connecting to off-road shared paths and linking community amenities such as schools, railway stations or shops.



WHY WE COLLECT DATA

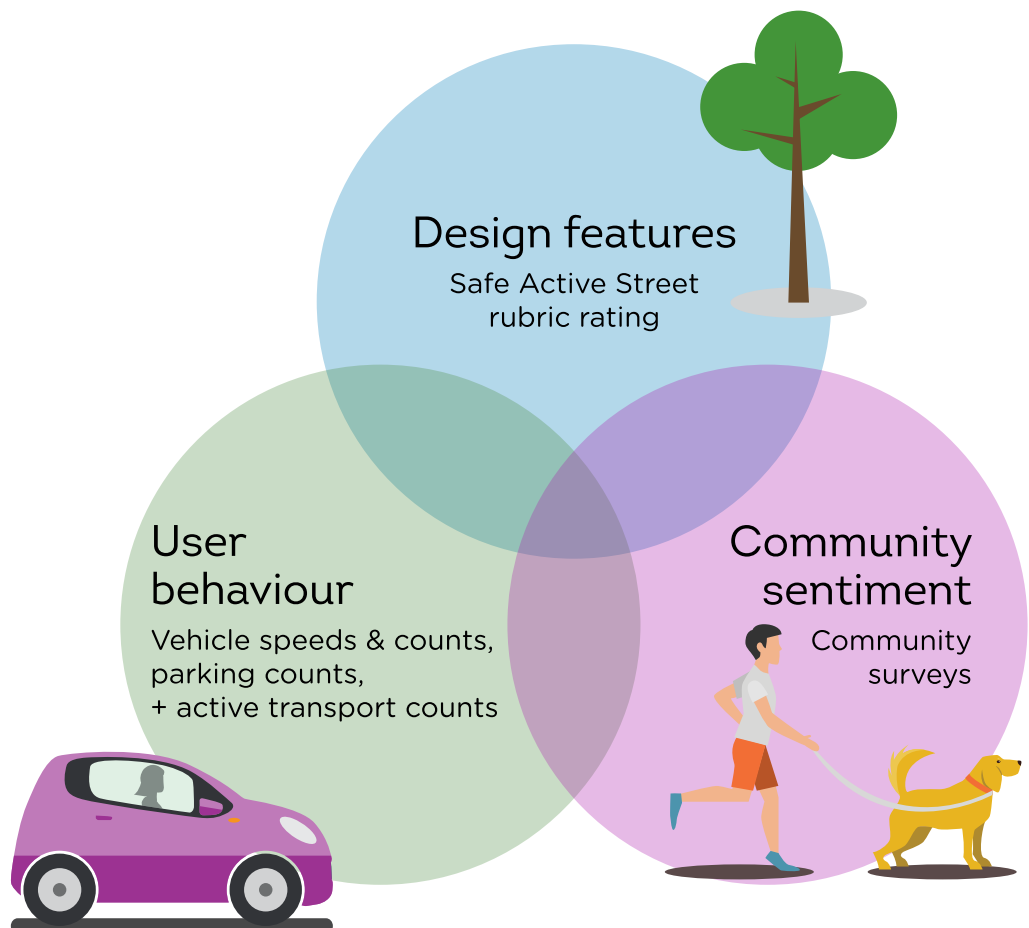
Collecting transport data helps us to better understand transport choices and behaviours. This insight assists us to guide infrastructure investment in local communities to support the growth of active transport.

Evaluation of the Safe Active Streets Pilot Program is being undertaken, including each of the eight projects involved.

Due to the complexity and differing treatments applied to each of the projects, the evaluation has been designed to collect and analyse data on three key components:

1. Design features
2. User behaviour
3. Community sentiment

The data presented in this interim evaluation report for the Belmont Safe Active Street discusses initial insights of the available data on design features and user behaviour. Community surveys are being undertaken which will provide additional insights on community perceptions about the safe active street. Further analyses of all data will also be undertaken and incorporated into the final evaluation report due in 2024.



CITY OF BELMONT, SAFE ACTIVE STREET

The Surrey Road Safe Active Street is a 4.4km route which provides a link between the Graham Farmer Freeway Principal Shared Path (PSP) and the Leach Highway PSP.

The route follows Surrey Road through to Cohn Street and includes upgraded facilities at the Great Eastern Highway underpass. A new path has been constructed at Tomato Lake, linking the route to President Street, Jeffrey Street and connecting to the PSP at Leach Highway.



The project commenced in January 2017 and was completed in May 2019.



SAFE ACTIVE STREET MAP

Unique design features

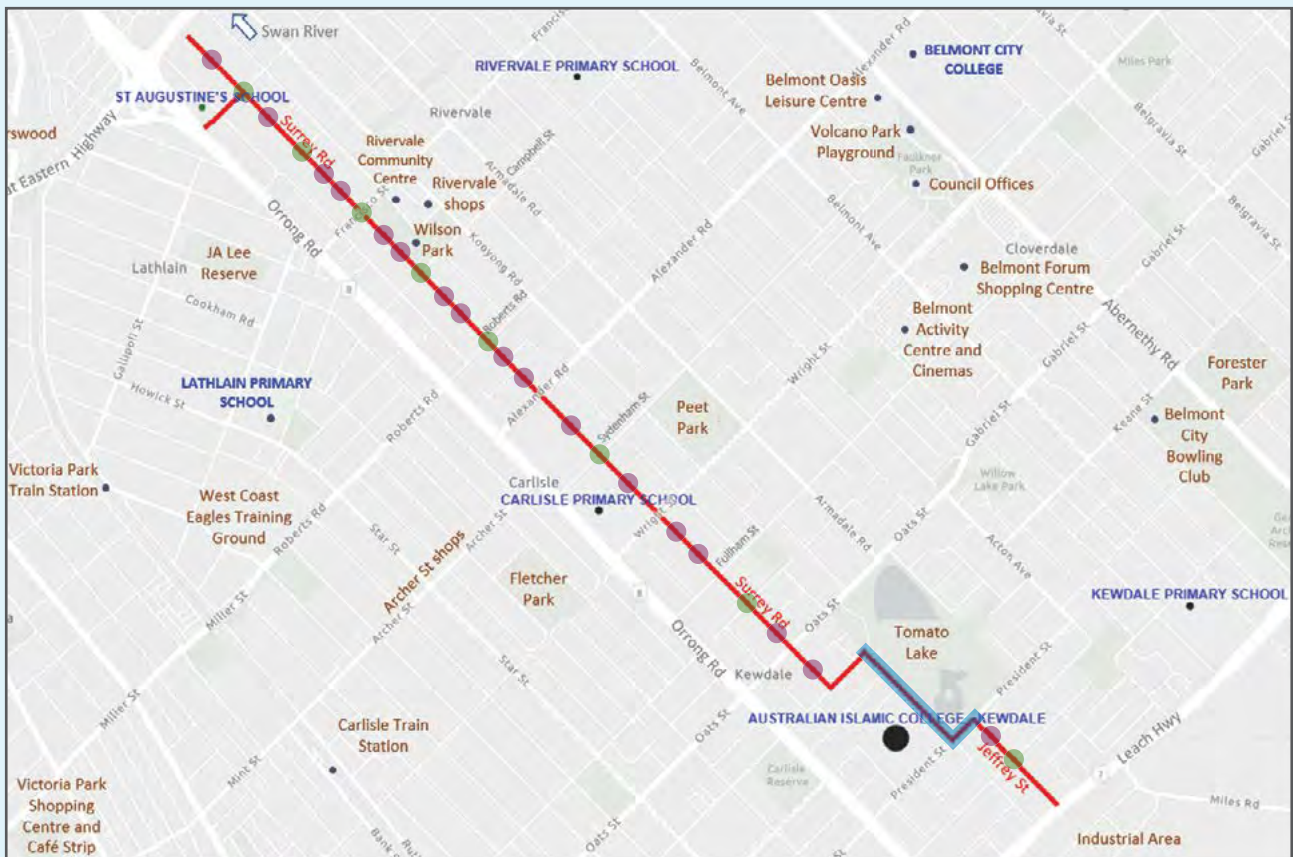
- Upgraded underpass, with mural artwork, improved lighting and amenity
- LED lighting upgrades
- Two bicycle repair stations
- Raised plateaus
- Slow points

Legend

- Slow point
- Raised plateau
- Shared path

Key route destinations

- Graham Farmer Freeway PSP
- Leach Highway PSP
- St Augustine’s Primary School
- Carlisle Primary School
- Australian Islamic College
- Jack Ring Park
- Wilson Park
- Rivervale Community Centre
- Belmont Netball Association
- Tomato Lake



EVALUATION PROCESS

Video surveys and pneumatic tube counters were used to collect pre and post construction measures of:

- Bike rider movements
- Vehicle traffic counts
- Vehicle traffic speeds
- Vehicle parking counts

Data collection on the Belmont Safe Active Street was undertaken in:

- May 2016 (pre-construction)
- May 2021 (post-construction)

VIDEO SURVEYS

Video surveys were conducted on the Belmont Safe Active Street, over different three-day periods between 6.00 am and 6.00 pm.

Video surveys involve placing video cameras at strategic locations to detect the movements of bike riders. Survey footage is then analysed to extract bike rider activity.

These surveys were conducted on the safe active street route and on adjacent intersections off-route to detect area wide trends. There are three comparable pre and post construction sites along the route shown in this report.



PNEUMATIC TUBE COUNTS

Pneumatic tube counters were placed at specific mid-block sections of road and at adjacent locations off-route to detect area wide trends.

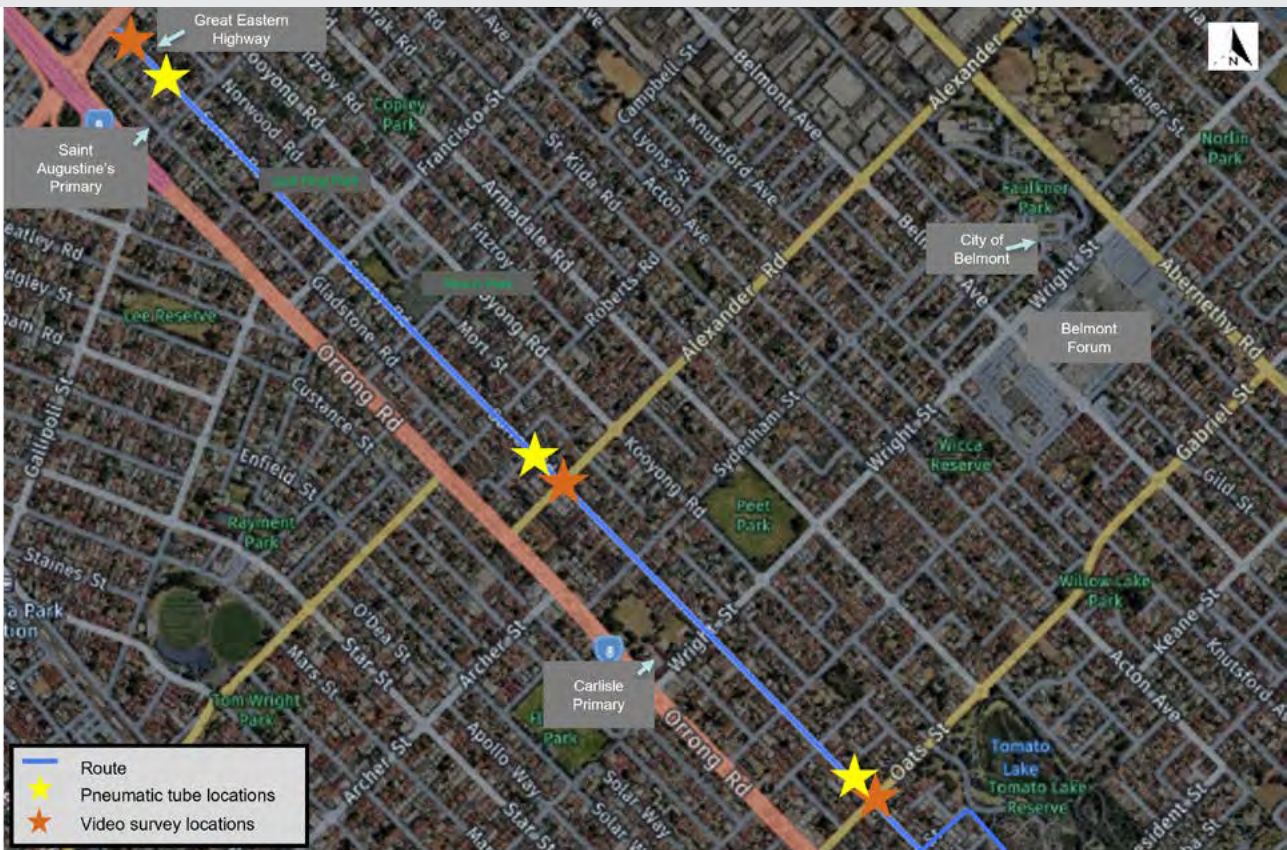
Pneumatic tube counters involve rubber hoses being stretched across the road and connecting at one end to a data logger. Tube counters were used to detect vehicle traffic volumes and speeds. Vehicle volumes reflect the 85th percentile speed which is the speed at or below which 85 per cent of vehicles are travelling.

Tube counters were in place over a specified period in May 2016 and again in May 2021 to capture the pre and post construction counts. There are three comparable pre and post construction sites along the route shown in this report and include the vehicle volumes and speeds as an average across both weekdays and weekends.

Both data collection methods enable DoT to observe changes in activity pre and post construction.



Route map with pneumatic tube counter and video survey locations



KEY INSIGHTS

Bike riding activity



The number of bike riders increased at all sites, with larger increases observed over the weekend.

- Increases were seen across all three sites on both weekdays and weekends.
- Overall, weekends attracted a higher number of bike riders, with the largest increase in bike riding activity observed at the Great Eastern Highway underpass.
- Weekdays saw smaller increases along the route and towards the southern end.

Average weekday and weekend bike riding activity

Comparable sites	Additional weekday bike riding	Additional weekend bike riding
Surrey Road and Great Eastern Highway underpass	3	119
Surrey Road and Alexander Road	32	54
Surrey Road and Oats Street	28	43

This table shows the number of additional bike riders post construction.

Vehicle traffic volumes and speeds



Vehicle volumes declined at two (out of three) sites along Surrey Road.

- Vehicle volumes significantly decreased at the two sites along Surrey Road at Priske Way and Roberts Road and at Oats Street and Mercury Street.
- An increase in vehicle volumes was observed round the Newey Street section. This may be due to vehicle traffic around St. Augustine Primary School.





A reduction in (85th percentile) vehicle speeds was observed at two (out of three) sites, however speeds could be further reduced at all sites.

- The 85th percentile speeds were above 37 km/hr at all three sites before construction of the safe active street. The 85th percentile vehicle speeds were however reduced post-construction at each end of the safe active street, at Newey Street and the Great Eastern Highway underpass, and at Oats Street and Mercury Street, however, could be further reduced to achieve an 85th percentile speed of 37 km/hr or below.
- The vehicle speeds at Priske Way and Roberts Roads (along the middle of the route) have remained largely unchanged.
- The Belmont Safe Active Street is a 4.4km route. The width and length of the route could be contributing to higher vehicle speeds. Traffic entering the route may be unaware of the change in traffic conditions or are not associating the yellow cycle symbol pavement marking with a speed reduction.

Daily average vehicle volumes (number of vehicles)

Comparable sites	Pre-construction	Post-construction
Surrey Road: Newey Street and Great Eastern Highway underpass	250	329
Surrey Road: Priske Way and Roberts Road	1,445	1,182
Surrey Road: Oats Street and Mercury Street	1,081	920

Daily average (85th percentile) vehicle speeds

Comparable sites	Pre-construction	Post-construction
Surrey Road: Newey Street and Great Eastern Highway underpass	46 km/hr	41 km/hr
Surrey Road: Priske Way and Roberts Road	42 km/hr	43 km/hr
Surrey Road: Oats Street and Mercury Street	58 km/hr	46 km/hr

SUMMARY

- Overall, the Belmont Safe Active Street has seen positive growth in the number of people using the route for bike riding, particularly over weekends. There has been large growth in the number of people riding bikes at the Great Eastern Highway underpass, however, increases can be seen along the full length of the route.
- Vehicle speeds have reduced at each end of the route, however, they are still above the recommended target, and further treatments may need to be considered to further reduce 85th percentile speeds.
- The Belmont Safe Active Street has a wide carriageway and is long and linear with its forward visibility unrestricted. The route would benefit from enhancing the existing treatments using red asphalt to increase the visibility and prominence. A colour and/or texture change would help treatments stand-out.
- The safe active street blue patches should be reapplied to enhance their visibility and ensure they are not impacted by sun glare.
- The route requires additional blue patches. One should be placed at Surrey Road after the intersection of Newey Street, as the patch near the Great Eastern Highway underpass is not in an observable location for traffic entering the route. An additional patch should be placed at Jeffrey Street after the intersection of President Street, as there is no patch to indicate this section is part of the route.



- The route could benefit from a 30 km/hr regulatory speed sign placed on Jeffrey Street near the intersection of President Street for traffic entering the route at this section. Further, an additional 30 km/hr repeater sign should be placed adjacent to the existing blue patches along Surrey Road to emphasise the 30 km/hr speed restriction.
- The safe active street would benefit from upgrading to the new Main Roads WA safe active street pavement markings standards e.g., updating existing yellow diamond cycle symbols to the 30 km/hr roundels on intersecting streets.
- Activation through events or community engagement activities could encourage normalisation and community ownership of the Belmont Safe Active Street, which may result in further growth of walking, running or bike riding along the route. Events or activities could be targeted for weekday bike riding or encouraging more children to utilise the safe active street to ride to school, as part of the [Your Move Schools Program](#).
- St Augustine's Primary School is an active Your Move school and has been part of the Your Move Schools Program since 2014. Encouraging use of the route and leveraging off the walking and riding activity generated through the Schools Behaviour Change Program could help to generate further use.
- Community perception data will help to ascertain the breadth and depth of positive or negative community sentiment for the Belmont Safe Active Street.
- The Safe Active Streets Pilot Program Evaluation Report will include statistical analyses of the full dataset and will be available in 2024.

FURTHER INFORMATION

More information on the Safe Active Streets Program can be found on the DoT website: www.transport.wa.gov.au



APPENDIX

Chart 1

Average weekday and weekend bike riding activity Pre and post construction (raw counts)



City of Belmont Safe Active Street

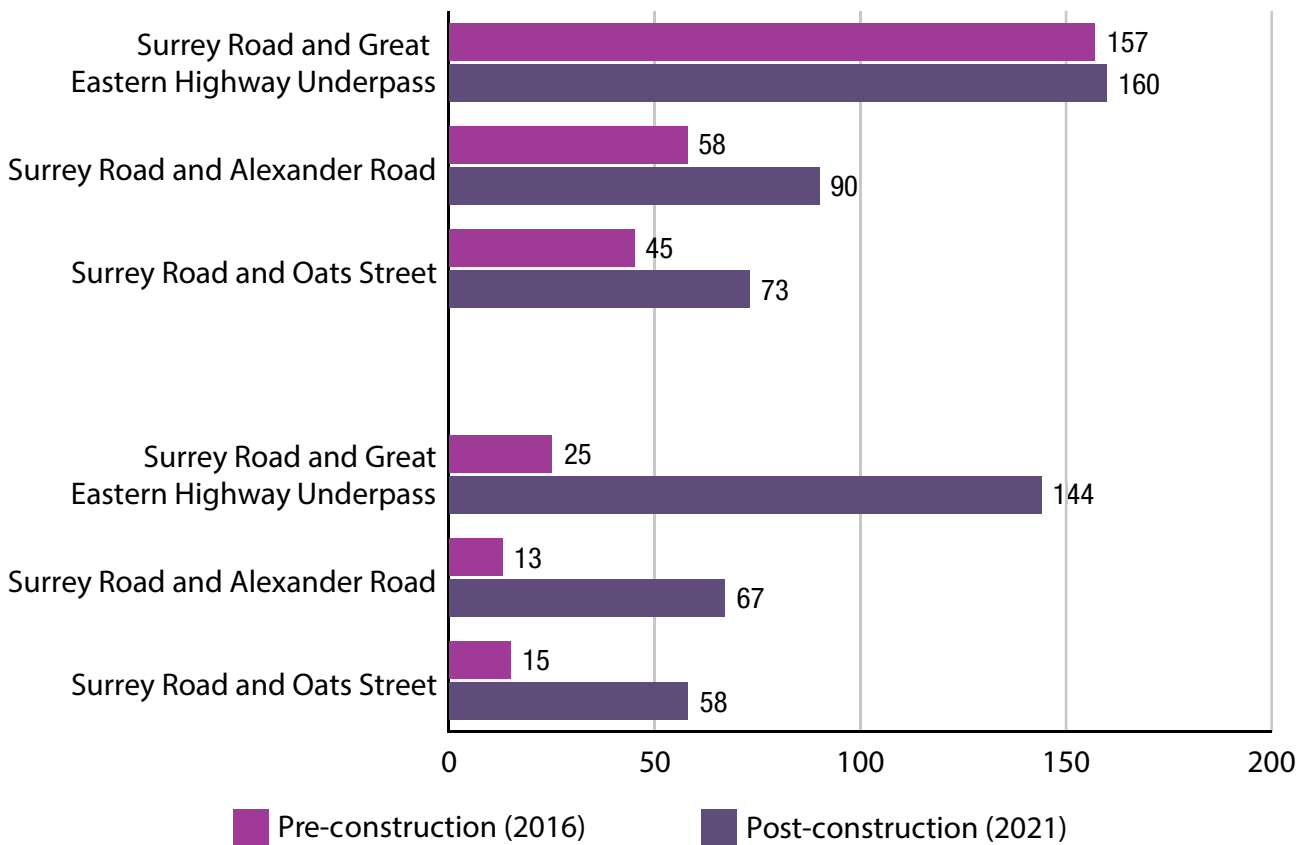


Chart 2

Daily average vehicle volumes

Pre and post construction (across both weekends and weekdays)



City of Belmont Safe Active Street

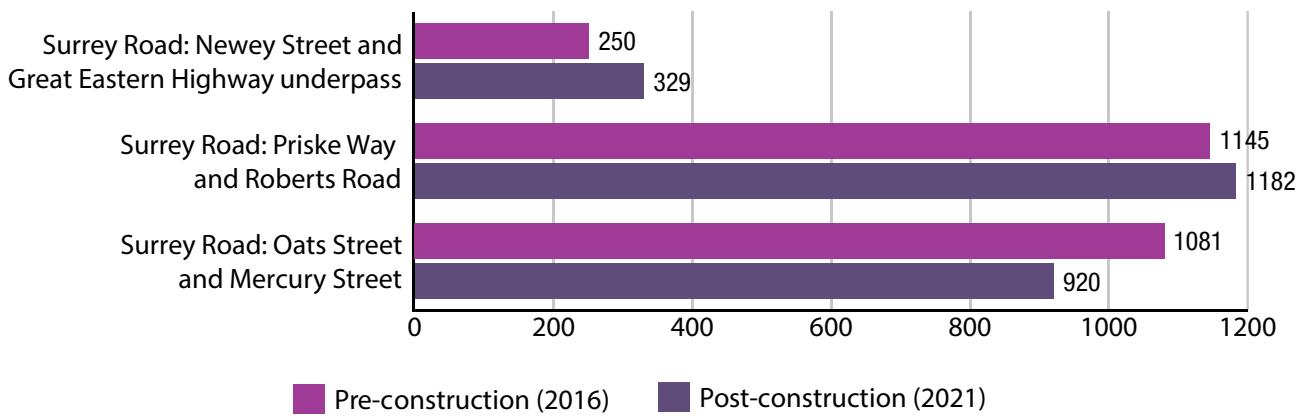


Chart 3

Daily average (85th percentile) vehicle speeds

Pre and post construction



City of Belmont Safe Active Street



Department of Transport

140 William Street
Perth WA 6000
Telephone: 13 11 56
www.transport.wa.gov.au

This material is available in alternative formats upon request.

Disclaimer: The information contained in this publication is provided in good faith and believed to be accurate at time of publication. The State shall in no way be liable for any loss sustained or incurred by anyone relying on the information.

© Department of Transport, Western Australia 2023

