



VINCENT SAFE ACTIVE STREET

Final Route-Level Evaluation Report



Acknowledgement of Country

The Department of Transport and Major Infrastructure acknowledges the Traditional Custodians of the land throughout Western Australia and pay our respects to Elders past and present.

We acknowledge the members of all Aboriginal communities, their cultures and continuing connection to Country throughout the State.

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Contents

SAFE ACTIVE STREETS PILOT PROGRAM	4
Evaluation document suite.....	4
CITY OF VINCENT SAFE ACTIVE STREET	5
Executive summary	5
PROJECT OVERVIEW	7
City of Vincent SAS project map	7
Timelines	8
Segments	8
WHY WE COLLECT DATA	9
SASs Pilot Program.....	9
Project aims.....	9
Evaluation framework	9
OUTCOMES	11
Design features	11
User behaviour	14
Community sentiment.....	21
SUMMARY OF FINDINGS	24
Achievements	24
Opportunities for improvement.....	24
Insights and recommendations	24
Alignment with program insights	24

SAFE ACTIVE STREETS PILOT PROGRAM

The Department of Transport and Major Infrastructure (DTMI) worked with local governments between 2015 and 2023 to develop, trial and evaluate safe active streets (SASs).

SASs use local area traffic management treatments to reduce car speeds to 30 km/h and create environments that encourage more people to walk, wheel and ride in their communities.

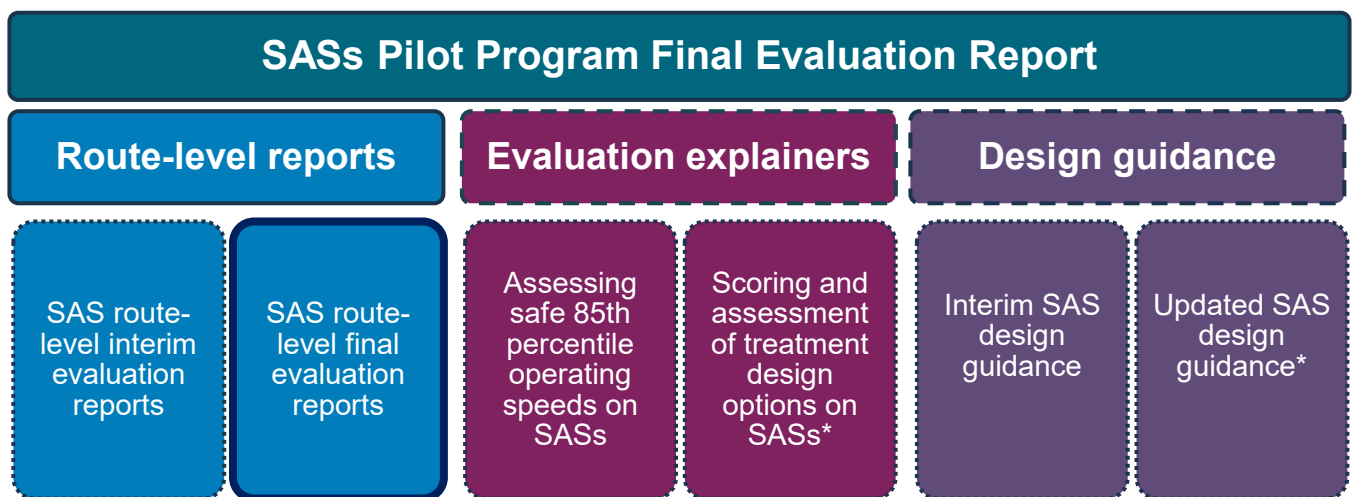
The SASs Pilot Program in Western Australia (WA) was motivated by research which showed that a fear of sharing the road with motor vehicles was a key barrier to many people riding bikes more often. Local research, including a large community-wide cycling survey undertaken in 2015 by the Royal Automobile Club of WA¹ and the 2015 Auditor General’s Report into Safe and Viable Cycling,² highlighted the need for quieter and more comfortable local bicycle routes to remove barriers to active transport and the perceived lack of safety on local roads.

An evaluation plan and framework were established to test whether redesigning a street using traffic management treatments could reduce vehicle volumes and speeds, leading to increased active travel, and positive community sentiment towards the SAS.

Evaluation document suite

This document forms part of the [SASs Pilot Program Evaluation](#). It provides a summary of results across three key change indicators for one of the nine evaluated projects, and a discussion of how the route performed overall.

The results outlined in this final route-level report should be read in conjunction with the SASs Pilot Program Final Evaluation Report,³ and other supporting material including methodology explainers and SASs design guidelines.



Suite of interrelated documents to be read in conjunction with the Vincent SAS final route-level report

¹ RAC – WA, 2015. [RAC Cycling Survey: 2015](#). Royal Automobile Club of WA, Perth, WA.

² OAG – WA, 2015. [Western Australian Auditor General’s Report: Safe and Viable Cycling in the Perth Metropolitan Area](#). Office of the Auditor General, Perth, WA.

³ DTMI, 2026. [Safe Active Streets Pilot Program – Final Evaluation Report](#). Prepared by the Department of Transport and Major Infrastructure. Perth, WA.

* Document to come.

CITY OF VINCENT SAFE ACTIVE STREET

Executive summary

The 3.1 km Bourke/Scott/Shakespeare SAS route connects Mount Hawthorn to Leederville. This lengthy route was constructed in two stages, with consultation, design and delivery spanning four years between 2015 and 2018.

This SAS route generated broadly positive outcomes.



Design treatment changes that influenced speed reductions on the SAS contributed to positive road safety outcomes across the Vincent SAS route. This saw increases in active transport activity along the SAS and positive sentiment from the community.

Key project insights

Overall, the design treatments and measures applied on the Vincent SAS led to positive results for user behaviour and community sentiment. Design changes, particularly those leading to speed reductions on the SAS, contributed to a positive road safety experience across the route.

Bike riding and walking increased on the SAS after construction, with increases also observed on control streets. Stage 2 of the SAS observed larger increases in walking and bike riding than Stage 1, possibly due to greater connectivity to key destinations via that part of the SAS route.

Vehicle numbers decreased on the SAS and on control streets. In April 2019, the local government implemented a 40 km/h speed zone trial on a sub-set of local residential streets, south-east of the SAS route. The observed reduction in vehicle volumes on control streets may have been affected by this adjacent initiative, thus lending support for co-attribution.

Vehicle 85th percentile speeds decreased on the SAS route and not on control streets. However, only the Scott Street segment of the route achieved speeds within the preferred operating range for an SAS, which aligned with the larger increases in walking and riding observed at this location. Speeds were reduced on other parts of the route but could be reduced further to improve user experience and possibly induce additional active transport usage.

One medical incident between a bike and vehicle occurred at the Bourke Street and Oxford Street intersection – the highest conflict risk location on the route. Whilst this reflects an increase in active transport usage raising crash risks, it also indicates potential to improve wayfinding and SAS priority signage at these types of intersections.

The SAS received broadly positive response from the community with the slower traffic speeds appearing to have contributed to feelings of comfort and safety.

Project recommendations

Recommendations to improve outcomes on this SAS project, informed by insights summarised in the SASs Pilot Program Final Evaluation Report, include:

- Lowering 85th percentile speeds consistently across all segments of the route to within the preferred operating range, by considering additional road treatments as required.
- Applying vertical or horizontal deflection treatments 80-100 m apart for maximum benefit realisation and consistent reduction of unsafe speeds.

- Improving SAS priority and wayfinding at locations where the SAS intersects with higher order local roads, particularly district distributor roads.

Program insights

The SASs Pilot Program was successful in trialling a new approach to road safety and active transport on suburban streets. The program has attracted national and international interest, and the SAS concept is being taken up by local authorities in WA and across Australia.

The [SASs Pilot Program Final Evaluation Report](#) detailed the rich array of insights generated through the pilot program, which provide context and relevance to the following individual project key insights and recommendations.

Theory of change supported

- Combining comprehensive physical interventions with a posted speed limit of 30 km/h: increases active travel (walking and bike riding).
- Reduces vehicle volumes and speeds, making streets safer for all users.

Effective design features identified

- Road width narrowing and traffic calming treatments spaced every 80–100 m: these measures physically slow vehicles and change vehicle direction, leading to:
 - lower traffic volumes and speeds
 - increased bike riding and walking.

Critical drivers of benefit realisation determined

- Route selection: must form a direct or indirect connection to key attractors (activity centres, shops, schools, stations, recreation areas) and form part of the long-term cycle network (LTCN).
- Design features: narrowed road widths and treatments 80–100 m apart.
- Cost efficiency: projects costing \$600,000 – \$1.2 million per km likely achieve a benefit cost ratio (BCR) >1, if the above conditions are met.

Application of activation, consultation and evaluation (ACE) principles⁴ is essential

- Activation: built infrastructure reflects social needs and the desires of people who will use it.
- Consultation: engagement integrated throughout the project lifecycle is a form of activation and enables community consultation.
- Evaluation: impact measured against anticipated outcomes.

Application of results into future program delivery

The SAS Design Guidance⁵ summarises the range of measures that can be applied and the key factors that have been found through this pilot program to influence user behaviour positively. These principles and guidelines will help local governments and practitioners plan and activate routes, consult with impacted communities and evaluate outcomes, whilst considering the application of design treatments and measures appropriate to their local context.

⁴ DTMI, 2023. [WA Bicycle Network Grants Program: WABN Grants Program Resources - Activation, Consultation and Evaluation \(ACE\) Guidance](#). Department of Transport and Major Infrastructure. Perth, WA.

⁵ DTMI, 2025. [Planning and Designing for Active Transport: Safe active street design guidance](#). Prepared by the Department of Transport and Major Infrastructure. Perth, WA.

PROJECT OVERVIEW

The 3.1 km Bourke/Scott/Shakespeare SAS route connects Mount Hawthorn to Leederville.

The SAS was completed in two stages:

- The first stage of the route starts at Green Street in Mount Hawthorn and connects to the Scarborough Beach Road separated bike lanes, which were installed by the City of Vincent in 2015.
- The second stage of the route continues south of Scarborough Beach Road, along Shakespeare Street and Scott Street, through to Richmond Street. It also includes a link to the Mitchell Freeway Principal Shared Path (PSP) via Bourke Street.

City of Vincent SAS project map

Key route destinations

- Aranmore Catholic College
- Mount Hawthorn Primary School
- North Metropolitan TAFE
- Leederville Oval
- Oxford Street shopping strip
- City of Vincent council offices
- City of Vincent Library
- Loftus Recreation Centre
- Connection to Mitchell Freeway PSP

Unique design features

- Red asphaltting
- Raised plateaus at all junctions
- Formalised parking bays
- Single slow lane points
- Priority changes at intersections
- Additional trees for shade and comfort
- Kerb improvements
- Bike repair stations and water fountain s
- Landscape enhancements for improved passive surveillance and personal safety.



Vincent SAS route map

Timelines

Delivery: Stage 1

- Community consultation: 2015
- Construction: June-December 2016
- Lines and signs completion, and official opening: December 2016

Delivery: Stage 2

- Community consultation: 2017
- Construction: April-August 2018
- Lines and signs completion, and official opening: November 2018

Evaluation: Stage 1

- Pre-construction data collection (user behaviour): June 2016
- Post-construction data collection (user behaviour): June 2017 and June 2021

- Post-construction data collection (community sentiment): October-November 2022
- Interim evaluation report: 2023
- Final evaluation report: 2026

Evaluation:⁶ Stage 2

- Pre-construction data collection (user behaviour): April 2018
- Post-construction data collection (user behaviour): April 2021
- Post-construction data collection (community sentiment): October-November 2022
- Interim evaluation report: 2023
- Final evaluation report: 2026

Segments

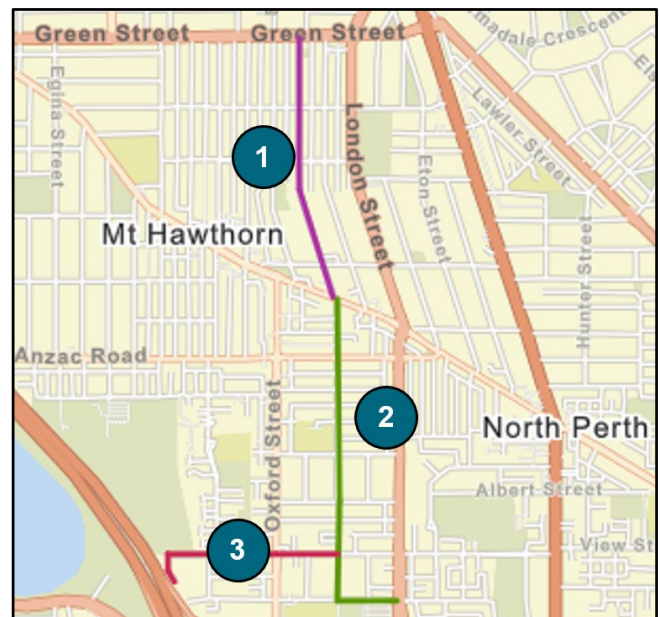
For monitoring and analysis, the SAS was split into 'segments' based on differences in form of the existing route and treatments applied during delivery of the SAS. This route was separated into segments as follows:

Stage 1

1. Shakespeare Street (Green Street to Scarborough Beach Road)

Stage 2

2. Shakespeare Street, Scott Street and Richmond Street (Scarborough Beach Road to Loftus Street)
3. Bourke Street (Scott Street to Mitchell Freeway)



Map of the Vincent SAS route showing 'segments' used for data analysis

⁶ Notes: The City of Vincent implemented a [40 km/h speed zone trial in April 2019](#), on a sub-set of local residential streets, south-east of the SAS route. That area did not align with the SAS route, however some user behaviour changes may require consideration for effects of co-attribution.

Between data collection periods, city-wide travel patterns were disrupted by COVID-19 lockdowns. The post-construction SAS data collection periods, however, were chosen because [DTMI's network monitoring](#) indicated they were much less affected by these disruptions. Any remaining impacts are expected to have influenced both the treatment (SAS) and control streets equally.

WHY WE COLLECT DATA

Evaluating a project by collecting data on people's behaviour and sentiment helps us to determine:

- whether the aims of a project have been achieved
- what combinations of interventions were most effective
- whether further improvements could still be made to improve outcomes.

These insights help to guide infrastructure investment in local communities that support the growth of active transport.

SASs Pilot Program

The SASs Pilot Program trialled unique combinations of design features that reflected local community needs and contexts, while also complementing each local government's approach to building an integrated active transport network.

Nine SAS projects, including this one, were included in the evaluation study. For more information on the evaluation methodology, theory of change, and overall program insights see the [SASs Pilot Program Final Evaluation Report](#).

Project aims

The following aims were investigated for each project included in the evaluation study, and results were compared across projects to derive program level insights that could lead to improvements in design guidelines and future SAS delivery.

1. Reduce motor vehicle numbers
2. Reduce 85th percentile speeds to within acceptable operating thresholds⁷
3. Increase the number of riding and walking trips made throughout the week
4. Increase the number of people of all ages and abilities making local trips by riding and walking
5. Influence user, resident and wider community perceptions of SAS routes as safe and comfortable places to walk, wheel and ride.

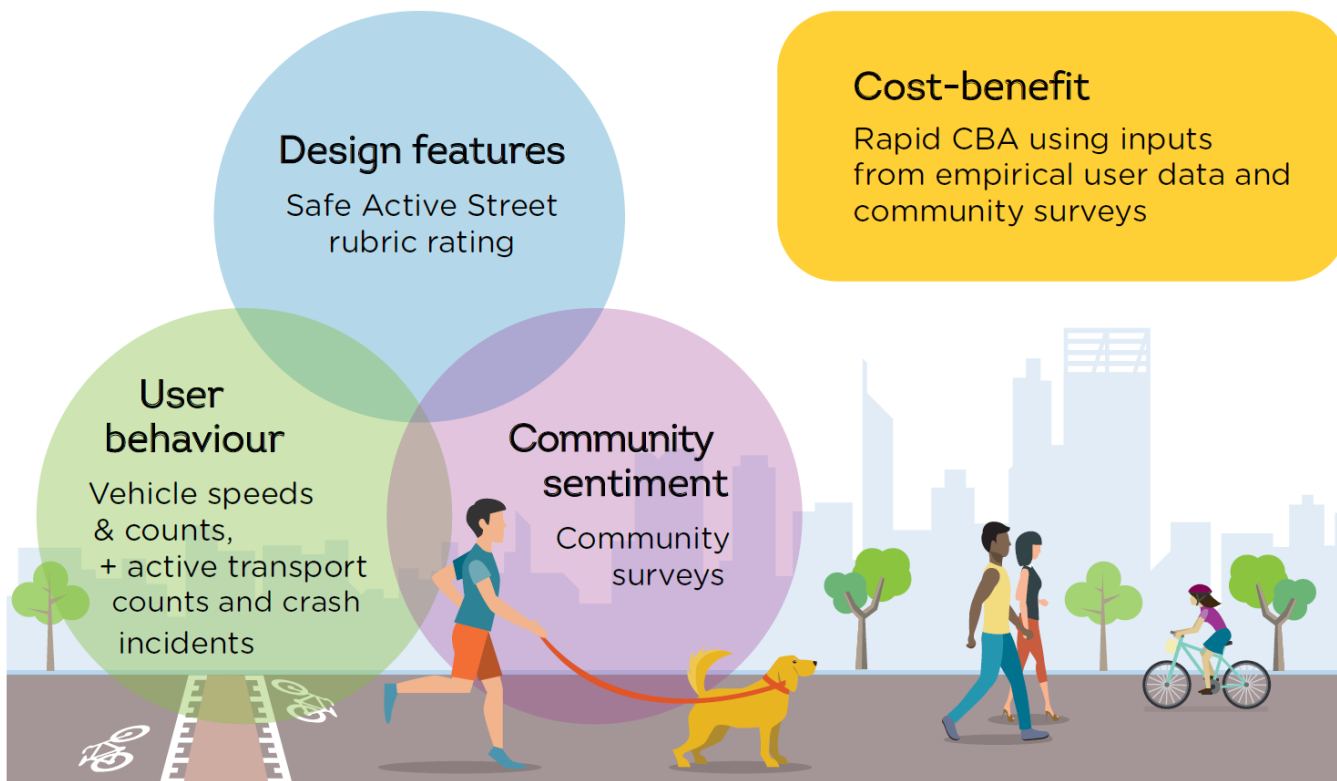
Evaluation framework

A comparative impact evaluation methodology was developed to collect and analyse data on three key change indicators for each SAS:

- **Design features** – scores to quantitatively differentiate between the types and scale of features, treatments and supporting measures applied to the route.
- **User behaviour** – vehicle counts and speeds (using pneumatic tube surveys), and active travel counts (using video surveys), collected pre- and post-construction. Small samples of available crash data were reviewed and discussed at the project level only, to aid interpretations of other data.
- **Community sentiment** – qualitative data on sentiment and perceptions, collected via community, resident and user surveys post-construction.

⁷ DTMI, 2026. [Planning and Designing for Active Transport: Explainers - Assessing 85th percentile speeds on safe active streets](#). Prepared by the Department of Transport and Major Infrastructure. Perth, WA.

At the program level, the evaluation framework included a fourth key indicator: cost benefit. The [SASs Pilot Program Final Evaluation Report](#) includes discussion of outputs from a cost benefit analysis conducted on data from each of the nine evaluated projects and provides a summary of the factors that influenced whether a project received a BCR >1, indicating a positive return on investment.



Data sources for each safe active street key indicator, illustrated to show theoretical interactions

OUTCOMES

Design features

Evaluation of the design features applied on each SAS route was a complex task due to the wide range of measures and treatments available, which could be chosen to influence different unique, yet complementary effects on user behaviour and community sentiment.

Assessment rubric

To assess the types and scale of treatments and supporting measures applied in each pilot project, a consistent scoring rubric and guidelines were developed for the SASs Pilot Program, which required a group of invited transport engineers and planners to agree on scores during focus group sessions.

Twenty-one criteria were identified across five design categories:

1. Active transport infrastructure
2. Connectivity
3. Traffic calming
4. Parking bay infrastructure
5. Placemaking and legibility.

Through facilitated consultation, design scores (0-4) were determined, where scores reflected the degree of improvement applied for each criterion per route segment assessed. Total average scores per route segment and category (grouping of criterion) could then be interpreted as:

<1 = minimal improvements	1-2 = moderate improvements	2-3 = major improvements	>3 = substantial improvements
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Results

Table 1 provides a breakdown of scores per route stage, segment and design category.

Overall, the route averaged a design score of 2.65, indicating major improvement was achieved across the whole route. Stage 2 scored higher than Stage 1, brought up by substantial design improvements.

- The overall route score was brought up by substantial improvements to ‘traffic calming’ and ‘parking bay infrastructure’.
 - A combination of traffic calming treatments were installed including narrowed slow points, raised intersection plateaus and speed humps.
 - Use of formalised ‘parking bay infrastructure’ had a traffic calming effect by narrowing the road carriageway and should be considered as a supportive design feature to reduce motor traffic volumes and speeds.
- The route achieved moderate improvements for ‘active transport infrastructure’, with existing footpath provision not widened to support additional pedestrian movement.
- Scores for ‘connectivity’ were substantial for Stage 2, an indication of suitable route selection.
 - This stage of the route was closely connected with key destinations along and adjacent to the route, including Oxford Street shopping strip, City of Vincent council offices, City of Vincent Library, Loftus Recreation Centre with direct connectivity to the Mitchell Freeway PSP.
 - The SASs Pilot Program Final Evaluation Report determined route selection is a critical driver of benefit realisation, with direct influences on current and latent demand.

Table 1: Design scores* per category, segment and overall for the Vincent SAS route

Segment and stage	Active transport infrastructure	Connectivity	Traffic calming	Parking bay infrastructure	Place-making and legibility	Total*
Segment 1, Stage 1: Shakespeare St (Green St to Scarborough Beach Rd)	1.25	1.33	2.86	3	2.4	2.24
Segment 2, Stage 2: Shakespeare St, Scott St and Richmond St (Scarborough Beach Rd to Loftus St)	1.75	3.33	3.43	3.5	2.6	2.9
Segment 3, Stage 2: Bourke St (Scott St to Mitchell Fwy)	1.75	3.33	2.86	4	2.8	2.81
Overall average route score	1.58	2.66	3.05	3.5	2.6	2.65

*Total average scores per segment and category can be interpreted as: <1 = minimal improvements, 1-2 = moderate improvements, 2-3 = major improvements, >3 = substantial improvements.

Examples of applied design treatments



Raised 4-way intersection and kerb plantings



Single lane angled slow point



Median island at roundabout with flush crossing



Bike in primary position crossing raised 4-way intersection



Road hump and kerb build outs



Riders transitioning through single lane slow points

User behaviour

Evaluation of user behaviour followed a comparative impact approach, with before-after, control-intervention (BACI) data collection design.

Data collection design

A BACI data collection design was applied to differentiate between the effects of interventions applied on the treatment route and changes that may have occurred 'naturally' in the surrounding area.

Data was collected before construction at carefully selected sites on the SAS (treatment) and at comparative sites on similar nearby streets (control) and repeated at the same sites after construction at consistent times of the year to minimise influence of seasonal variation.

With a BACI design, traffic and movement flow on control streets did not need to match with treatment streets, and an appropriate analysis of change (odds ratio) was determined.

Odds ratio analysis

To assess changes in counts of vehicles, walkers and bike riders on the treatment compared to control routes, a statistical measure of probability was applied known as an 'odds ratio', which compares the odds of an outcome occurring in one group to the odds of it occurring in another group (regardless of differences in raw counts across groups).

Odds ratios were used to estimate whether the outcomes observed on the SAS route were likely attributable to the SAS, unlikely attributable, or consistent with trends observed on the control streets.

Scores range from 0-2 and sometimes higher, with scores >1 indicating higher odds of the treatment influencing the outcome and scores <1 indicating decreased odds. It is common, however, that during interpretation of results, a middle range is determined that indicates a neutral or indeterminate result. During analysis of the SAS user behaviour data, a middle range of 0.93 and 1.08 was determined as neutral change or change on the SAS that was consistent with trends observed on the control routes.

Assessing 85th percentile speeds

It was not suitable to apply odds ratios for 85th percentile speeds because the posted speeds were intentionally reduced on the SAS route. Instead, a method was developed specifically to assess the effectiveness of the lowered speed limits and changed street conditions of SAS routes on driving behaviour, through which DTMI identified an acceptable operating range and upper bound for 85th percentile speeds. For more information, see the supporting document:

[Assessing Safe Operating Speeds on 30 km/h Streets](#).

Calculating average daily results

Vehicle counts and speeds were detected across 14 consecutive days, including weekdays and weekends, at consistent seasonal and temporal periods before and after SAS construction. Active transport counts were detected across three weekdays and one weekend day, at consistent seasonal and temporal periods before and after SAS construction.

Data collection periods were carefully selected to avoid local area events, public holidays and school holiday periods. If collection technology failed, samples were repeated immediately.

Calculations of average daily results were undertaken by:

- i. averaging the available weekday and weekend data per collection period
- ii. applying weightings for the number of weekday and weekend days per week
- iii. adding the result to determine average weekly activity
- iv. dividing by seven to achieve an average daily estimate.

This method was applied to achieve consistency across the available dataset, and smooth out any day-of-the-week fluctuations that may have occurred. In this way, data between control and treatment sites, and across SAS locations could be compared consistently.

Vehicles

Method

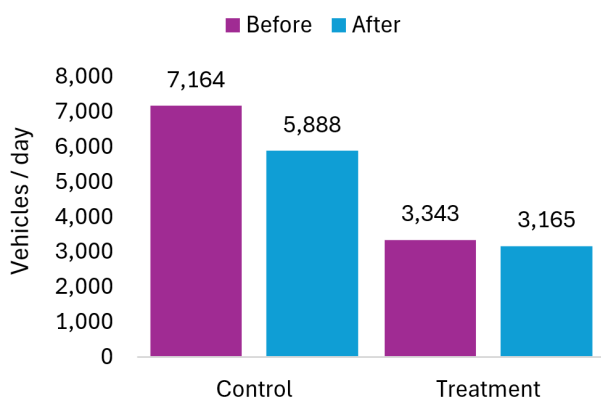
Pneumatic tube counters were used to detect vehicle traffic volumes and speeds. They were placed at strategically selected midblock locations on the SAS route (treatment) and comparable locations on adjacent streets (control). Depending on segment length, between 1 - 4 counters were placed on each.

Results

Vehicle volumes - overall

- Vehicle counts reduced both on the treatment route (-5 per cent) and control streets (-18 per cent), with the treatment route experiencing a smaller proportional decrease.
- Comparing changes on the treatment and control routes, the odds ratio generated a low score of 0.85, **indicating the SAS was likely not responsible for the decreases observed enroute.**⁸

Figure 1: Vincent – average daily vehicles

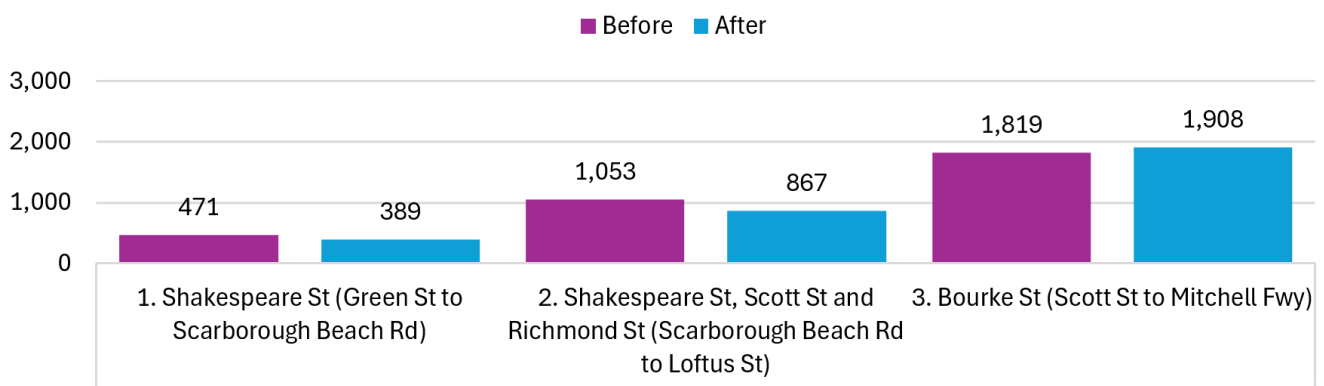


Vehicle volumes on the SAS decreased to a smaller proportion than control streets. The odds ratio indicated the decrease in vehicle volumes on the SAS route after construction was unlikely attributable to the SAS when compared with area-wide trends.

Vehicle volumes – segment comparison

- Vehicle counts reduced on segments 1 and 2 but increased on segment 3 of the SAS route, where the SAS intersected with a high frequency road, Oxford Street.

Figure 2: Vincent – average daily vehicles on SAS segments

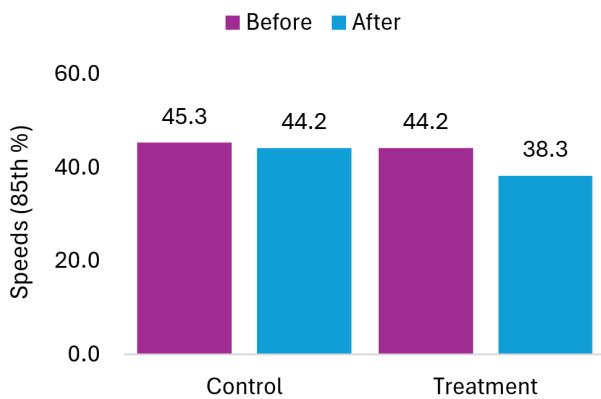


⁸ Note: Vincent Local Government implemented a [40 km/h speed zone trial in April 2019](#), on a sub-set of local residential streets, south-east of the SAS route. The observed reduction in vehicle volumes across the area may have been affected by this adjacent initiative, thus lending support for co-attribution.

Vehicle speeds - overall

- There was an observed reduction in 85th percentile vehicle speeds on the treatment route, achieved through a combination of traffic calming features that reduced vehicle speeds to within an upper bound of the preferred operating range: 32.1 km/h to 38.1 km/h.
- Recommendations could include continued monitoring of speeds, minor or localised interventions where context warrants, or targeted speed reductions at specific locations.

Figure 3: Vincent – 85th percentile speeds

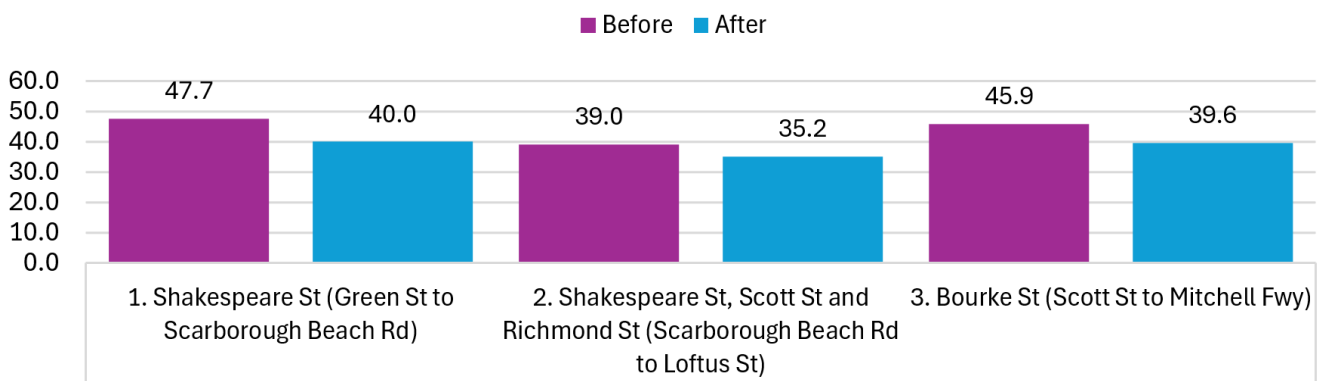


This result indicates moderate overall SAS performance in supporting the safety of vulnerable road users by sufficiently lowering the fastest vehicle speeds, with wide variability across the route.

Vehicle speeds – segment comparison

- All segments achieved some level of 85th percentile speed reduction from traffic calming measures including a combination of speed humps or raised intersection plateaus, narrow single lane slow points and a narrowed street width.
- 85th percentile speeds on segment 2 were lowered to within the preferred operating range.
 - This segment scored the highest for ‘traffic calming’, with the key difference being in achieving the shortest distance between treatments (59 m).
- Segments 1 and 3 would benefit from consideration of additional treatments to further reduce 85th percentile speeds to improve user experience.

Figure 4: Vincent – 85th percentile (fastest) speeds on SAS segments



Active transport

Method

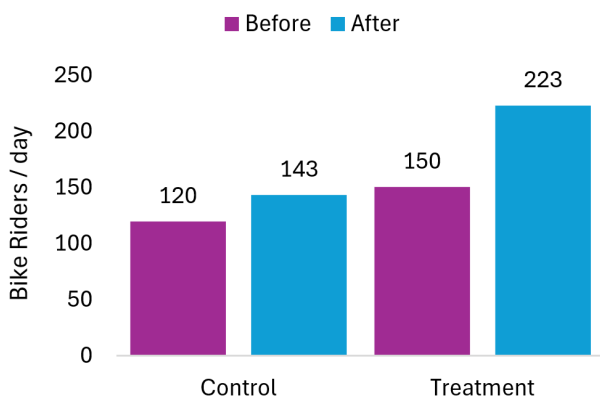
Video surveys were used to detect rates of active transport. Video cameras were placed at strategically selected intersections on the SAS route (treatment) and comparable locations on adjacent streets (control). Depending on segment length, between 1 - 4 counters were placed on each.

Results

Bike riding - overall

- Riding activity increased on the treatment route (+48 per cent) and control streets (+20 per cent), with a higher proportional increase observed on the treatment route.
- Comparing changes on the treatment and control routes, the odds ratio generated a neutral score of 0.94, **indicating the SAS was likely consistent with area-wide trends.**

Figure 5: Vincent – average daily bike riders



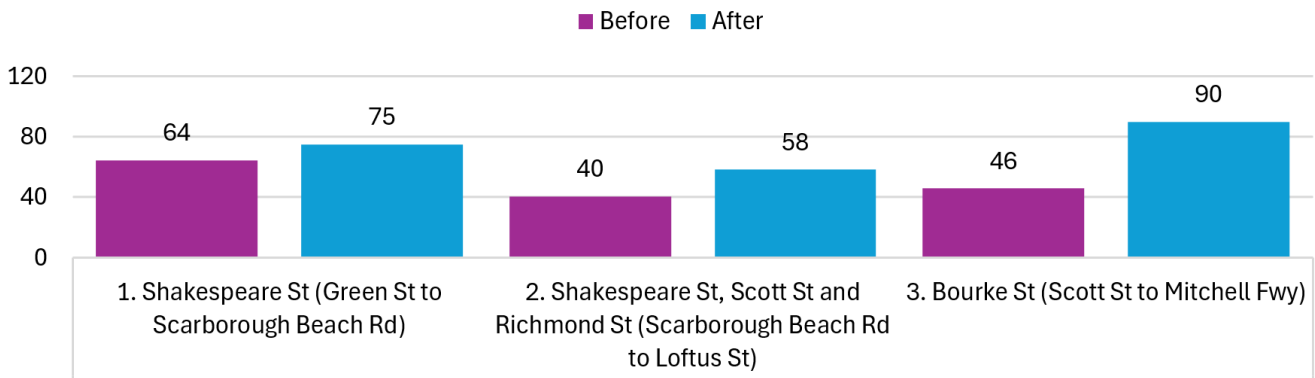
Bike riding activity increased on the SAS to a higher proportion than control streets, indicating it was a more attractive route for bike riders.

The odds ratio, however, indicated increases in bike riding on the SAS route after construction were consistent with area-wide trends, suggesting overall bike riding increased in the area, likely due to the SAS and other factors.

Bike riding – segment comparison

- All segments observed an increase in bike riding, with Stage 2 (segments 2 and 3) recording much larger increases compared to Stage 1.
 - This is likely related to the substantial increases in ‘connectivity’ to key destinations provided by Stage 2 of the route, substantial improvements to ‘traffic calming’ and ‘parking bay infrastructure’, and major improvements to ‘placemaking and legibility’, making this part of the SAS easier to navigate with reduced vehicle traffic flow and speeds.

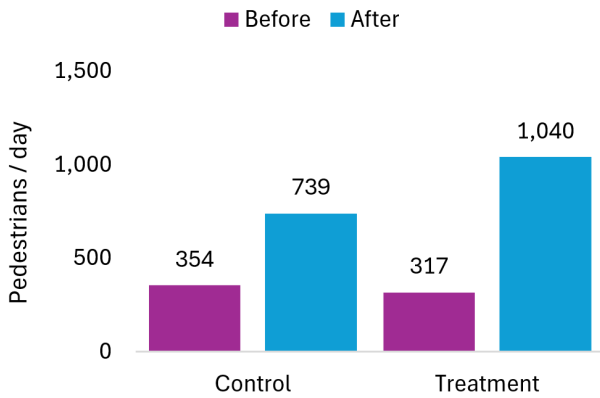
Figure 6: Vincent – Average daily bike riders on SAS segments



Walking – overall

- Walking activity also increased on the treatment route (+226 per cent) at a higher proportion than the control streets (+108 per cent).
- Comparing changes on the treatment and control routes, the odds ratio generated a high score of 1.11, **indicating the SAS was likely responsible for the increases observed enroute.**

Figure 7: Vincent – average daily walkers



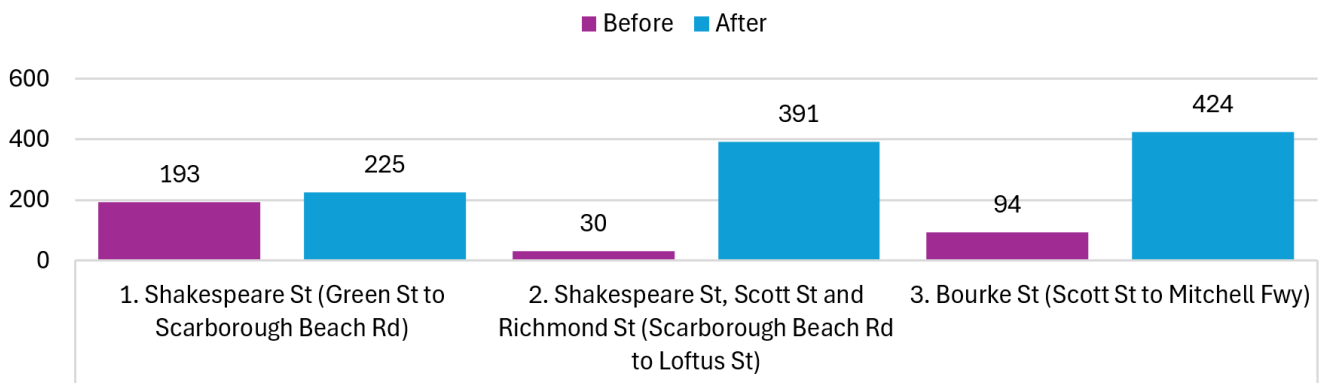
Walking activity increased on the SAS to a higher proportion than control streets, indicating it was a more attractive route for walkers.

The odds ratio indicated the increase in walking on the SAS route after construction was likely attributable to the SAS when compared with trends observed on nearby control streets.

Walking – segment comparison

- All segments observed an increase in walking, with Stage 2 (segments 2 and 3) recording much larger increases compared to Stage 1, likely because of the greater connectivity to key destinations at the southern end of the SAS.
 - Walking activity was likely also enhanced by the substantial improvements to ‘traffic calming’, ‘parking bay infrastructure’, and major improvements to ‘placemaking and legibility’, making this part of the SAS easier to navigate with reduced vehicle traffic flow and speeds.

Figure 8: Vincent – Average daily walkers on SAS segments



Crash incidents

Additional to the count data collected to assess user behaviour, a review of available crash data provided an indication of safety performance of the road environment before and after implementation of the SAS.

Objective evidence on the number, type and severity of crashes occurring in the area, in light of the changed user behaviour along the route, helps identify whether the SAS treatments have influenced road safety outcomes.

Method

Crash incidents were downloaded from the Main Roads WA data warehouse via Data WA. Eleven years of reported incidents across the State, from 1 January 2013 to 31 December 2023,⁹ were available which included midblock and intersections.

Data was filtered to anything involving bike or pedestrian, and geospatially mapped to visualise their location, type and injury severity against the SAS routes.

Sample sizes were low, which limited analysis to a simple visual count. Nevertheless, patterns were assessed alongside the design features of the route and user behaviour count results for vehicles, people walking and bike riders.

Sample sizes in active transport related crash data were typically low due to:

- frequency of incidents being generally low in the specific areas of interest
- the incident dataset only containing medical, hospital, fatal or property damage reports.

Results

Tables 2 and 3 provide a summary of incidents between vehicles and bike riders or people walking, before, during or after SAS route construction, shown for each stage of the SAS route and corresponding control street locations. Notable data patterns include:

- The completed Vincent SAS route experienced one medical incident involving a bike rider and vehicle, from a base of zero in previous years. This incident occurred on Stage 2 of the SAS, at the Bourke Street and Oxford Street intersection – the highest conflict risk location on the route.
- Before construction, one midblock pedestrian incident was recorded on Stage 2 of the SAS, also on Bourke Street, between Brentham Street and Windich Place.
- Zero incidents were recorded on Stage 1 of the SAS route before, during or after construction.
- Several incidents involving bike riders or pedestrians were recorded on control streets before and after SAS construction.

This pattern indicates positive SAS performance in supporting the safety of vulnerable road users, with issues at one location that could be reviewed.

⁹ Note: At the time of analysis (late 2025), data for 2024 and 2025 was not available to download.

The one bike riding incident that occurred at the high traffic, high crash risk intersection of Bourke Street and Oxford Street may indicate that this location could be reviewed to improve driver awareness of SAS priority.

On the control streets however, the number of incidents between vehicles and vulnerable road users increased, which could be linked with the lack of safety features compared with the SAS route.

Table 2: SAS Stage 1 - Incidents between vehicles and bike riders or pedestrians, before, during or after SAS route construction

Years of data reviewed ¹⁰	SAS construction status	Crashes on SAS route – Bike	Crashes on SAS route – Pedestrian	Crashes on control street – Bike	Crashes on control street – Pedestrian
5 years	Before	Nil	Nil	1 hospital 3 medical	Nil
1 year	During	Nil	Nil	Nil	Nil
5 years	After	Nil	Nil	1 hospital 3 medical	1 medical

Table 3: SAS Stage 2 - Incidents between vehicles and bike riders or pedestrians, before, during or after SAS route construction

Years of data reviewed	SAS construction status	Crashes on SAS route – Bike	Crashes on SAS route – Pedestrian	Crashes on control street – Bike	Crashes on control street - Pedestrian
5.5 years	Before	Nil	1 hospital	1 hospital 1 medical	Nil
1 year	During	Nil	Nil	Nil	Nil
4.5 years	After	1 medical	Nil	1 hospital 2 medical	1 hospital

¹⁰ Years of data reviewed reflects the combined total of all available incident data analysed relative to the SAS's construction status. Due to the limited sample size and targeted location, averaging incidents per year was not suitable for this analysis.

Community sentiment

Community sentiment was collected to understand how residents and road users perceived the SAS and how they reported using the street before and after implementation. These insights provide valuable context on perceived safety, comfort and self-reported travel behaviours that cannot be captured through traffic counts alone. Incorporating community perspectives enables a more complete assessment of SAS user experience and helps to inform decisions about future refinement or expansion of the program.

Method

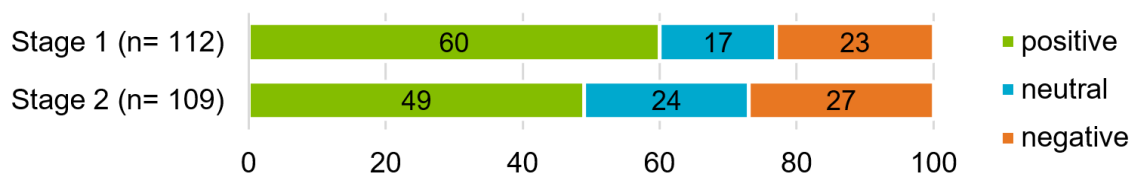
Community surveys were undertaken in 2022, six years following the opening of Stage 1 of the SAS in 2016 and four years following the opening of Stage 2 in 2018. Questions focused on the design treatments and effectiveness in delivering the project objectives, self-reported usage of the route (frequency, trip purpose) and demographics.

Results

Community sentiment and perceptions

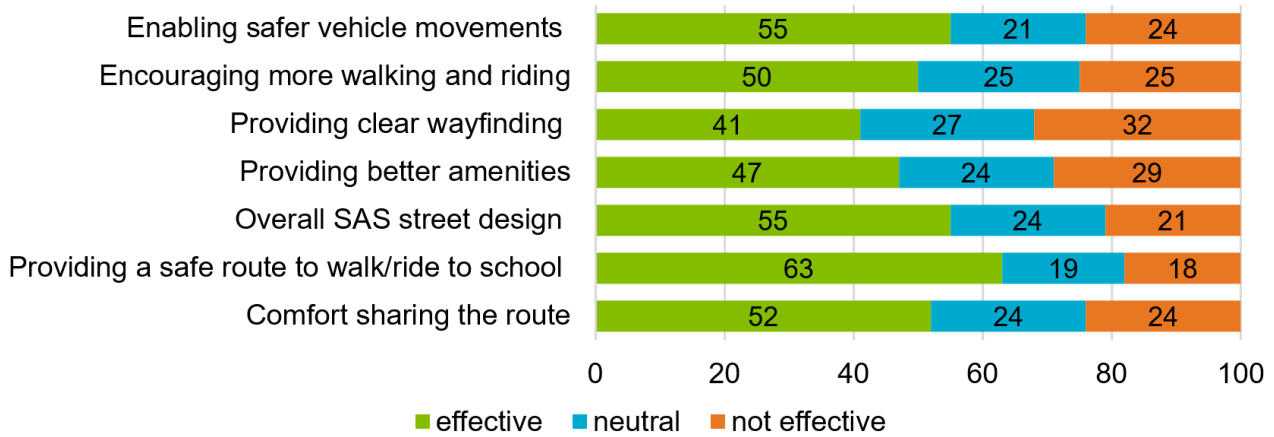
- Community responses towards the SAS were positive overall:
 - **54 per cent** of all respondents, both stages combined, reported feeling positive towards the SAS (21 per cent were neutral).
 - Positive sentiment towards Stage 1 of the route (60 per cent) was one of the largest positive sentiment values compared with other SAS routes. With the variety of treatments applied on this route and long duration between construction completion and survey sampling, it could indicate that community sentiment improves as existing residents adjust and home ownership shifts towards people who choose to live on or near an SAS route.

Figure 9: Community sentiment towards the Vincent SAS (n=221)



- When asked to rate the SAS on effectiveness across several categories, responses were mostly positive.
 - Sentiment was largely positive towards the overall street design, comfort sharing the route, safer vehicle movements, and the SAS providing a safe route to walk or ride to school.
 - Verbatim responses indicated that improvements to wayfinding and amenity could make user experience better.

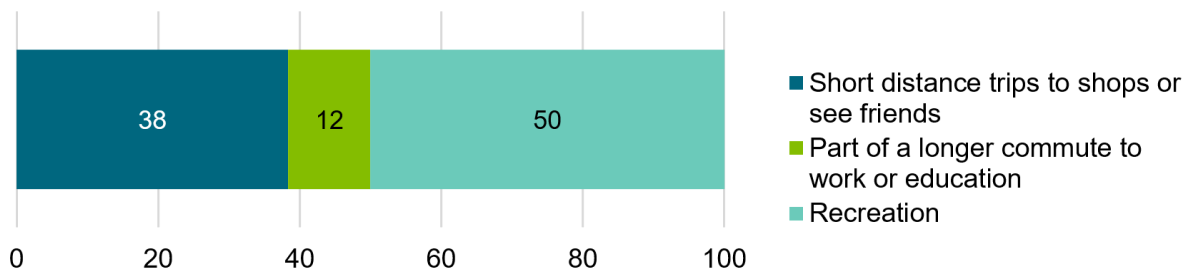
Figure 10: Community perceptions of the SAS (n=221)



Changes in behaviour and trip purpose

- Self-reported changes in behaviour from all respondents were consistent with observations.
 - **28 per cent** = NET increase in active travel
 - **-6 per cent** = NET decrease in vehicle use.
- People who walked or rode a bike along the SAS did so for a mix of reasons, with half for recreation and half for transport purposes.

Figure 11: Walking, riding – trip purpose (n=146)



Verbatim responses on what people liked or didn't like about the SAS

Positives

"I feel so much safer riding my bike. I feel at times I'm not fast enough for bike lanes which are on the side of the road, so I really like the wide streets that are safe active streets."

"Provides a decent benchmark for inner city development towards a future that encourages other means of transport other than driving. Further areas of the City of Vincent should take lessons learnt from this project and apply it such that bikes and eRidables can be used safely."

"It forces people to slow down and pay attention to the way they use the street and how other people are using the street. I live nearby and noticed the change in driver behaviour immediately and it has become habit for people to drive more carefully here over time."

"Landscaping. Native plants. Drainage has been improved. Especially at the nature area on corner of Drew and Links. Permeable path has improved run off. Landscaping design with logs and rocks looks fantastic. Interactive for children walking to and from school."

"It makes it more walking friendly for families and older people and people with disabilities."

Negatives

"I feel unsafe to drive down this street as giving way to oncoming traffic is confusing."

"When traffic is blocked on the freeway, Oxford St and Loftus St fill quickly and this Safe Active Street is used by cars to rat run which creates dangerous situations. The footpath between Bourke St and Tennyson St is narrow and too close to the road. Now the road width is also narrowed cars are dangerously close to pedestrians using the path. With no traffic calming devices in this section, cars accelerate through here."

"Needs better reflective markers to show where the introduced kerbs narrow the road. Too many cars crash over these bumps because they are not obvious enough."

"I'm unsure what the rules are when I cross it using a different through road, e.g. how much am I required to slow down? Is it a different speed limit to cross?"



SUMMARY OF FINDINGS

Achievements

- The fastest vehicle speeds (85th percentile) were reduced to just above the preferred operating range.
 - This was likely influenced by the combined use of raised plateaus at all junctions, single slow lane points and priority changes at intersections, as indicated by the substantial improvement score for ‘traffic calming’ measures.
 - Another likely influence could be the substantial improvement to ‘parking bay infrastructure’ which contributed to narrowing of the carriageway on the SAS route.
- Post construction of the full SAS, both riding and walking activity increased.
- Broadly positive community sentiment towards all aspects of the route.

Opportunities for improvement

- Vehicle volumes decreased on the treatment route, however a higher rate of reduction was observed on surrounding streets possibly related to changed area-wide trends. Future SAS routes could consider testing for co-attribution of benefits from reduced speeds on surrounding streets.
- Crash patterns enroute and off route showed strong overall SAS performance in supporting the safety of vulnerable road users, with issues at one location that could be reviewed.

Insights and recommendations

Overall, the design treatments and measures applied on the Vincent SAS led to positive results for user behaviour and community sentiment. Design changes, particularly those leading to speed reductions on the SAS, contributed to a positive road safety experience across the SAS route.

Recommendations to improve outcomes on this SAS project, informed by insights summarised in the SASs Pilot Program Final Evaluation Report:

- Lowering 85th percentile speeds consistently across all segments of the route to within the preferred operating range, by considering additional road treatments as required.
- Applying vertical or horizontal deflection treatments 80-100 m apart for maximum benefit realisation and consistent reduction of unsafe speeds.
- Improving SAS priority and wayfinding at locations where the SAS intersects with higher order local roads, particularly district distributor roads.

Alignment with program insights

By trialling the use of different design features, and collecting data on user behaviour and community sentiment, the nine evaluated projects in the pilot program generated a rich array of insights that will guide future design and development of SASs.

The SAS Design Guidance developed through this trial provides insights for retrofitting brownfield sites but perhaps most importantly, guidance on how to establish an SAS on greenfield sites at inception.

With this guidance and support from DTMI, local governments can design and implement more SASs, creating effective 30 km/h shared street spaces for people to walk, wheel and ride comfortably and safely in their communities.

