



BICYCLE
NETWORK



Merri-bek
City Council

Bicycle Network and Merri-bek City Council

Open Streets Trials 2023



Summary overview

Bicycle Network continues to work in partnership with Merri-bek City Council to deliver Open Streets trials. Since 2021, Bicycle Network's Open Streets trials have been delivered in nine schools across Merri-bek City Council. Two in 2021, three in 2022 and four in 2023.

In 2023, Bicycle Network's Open Streets trials were delivered in MCC at:

- Brunswick South West Primary School
- Oak Park Primary School
- Fawkner Primary School
- Glenroy West Primary School

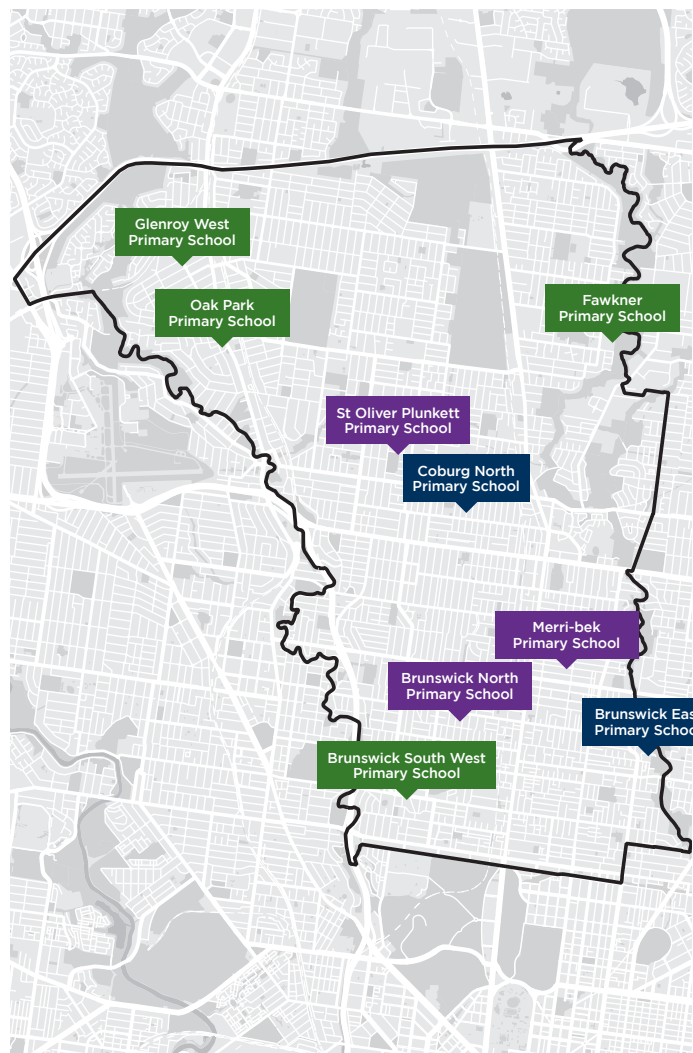
Bicycle Network's Open Street Trials

Bicycle Network's Open Streets initiative tackles congestion, poor air quality, and road safety concerns that many school communities experience. We do this by opening the streets and drop-off areas near schools to people on bikes and foot so that active travel is a more appealing and convenient way of getting to and from school. Drop-off zones for people using cars are resettled in areas that can better handle high numbers of motor vehicles. The trial is on one day per week for three consecutive weeks.

The initiative is tailored to each specific school, providing a taste of low-stress trips to school, happier and healthier students, and a calmer environment for local residents.

Merri-bek City Council's Ride and Stride Program

Open Streets trials are part of Merri-bek City Council's Ride and Stride Program. Launched in 2021, the Ride and Stride program delivers tailored behaviour change initiatives to local primary schools, aimed at increasing walking and riding trips to school. Ride & Stride is part of Merri-bek City Council's Zero Carbon Strategy, and supports their goal to see 80% of all trips to school be made via sustainable forms of transport by 2030.



This map represents the Merri-bek City Council locality and the schools that have received Bicycle Network's Open Street trials.

- Received in 2023
- Received in 2022
- Received in 2020

Acknowledgement of Country

Bicycle Network and Merri-bek City Council acknowledge the Wurundjeri Woiwurrung people of the Kulin Nation as the Traditional Custodians of the Lands and waterways in the area now known as Merri-bek, and pay respects to their Elders past and present, as well as to all First Peoples' communities who significantly contribute to the life of the area.

Data collection

AIRS

Summary

Bicycle Network’s Artificial Intelligence Road Survey (AIRS) program uses AI technology to detect and classify moving objects entering the camera’s field of vision.

We identify and categorise nine road user categories including pedestrians, bicycles, motorcycles, cars, taxis, van/ute, bus and two types of articulate.

Aims and purposes

AIRS is designed to inform councils, transport groups and planners of the travel behaviour in urban spaces.

The program aims to answer some critical questions:

- Which user types are occupying the road, how many and at what times?
- What are the directions of movement? And what exact path did they take?

Methodology



We use high-definition cameras to collect footage from sites of interest (step 1). The footage is then imported into an online portal that applies object detection AI to identify and classify road users (step 2). Following a series of standard error-checking and quality control measures, we conduct a spatial analysis of the road (step 3).

Road user volumes, flow and directionality are extracted by placing a digital ‘countline’ or ‘count shape’ over the footage and the software counts all road user passing through or between those line or shapes.

Road users paths re traced (‘tracelines’), which offers a spatial understanding of how road users interact in this space.

Surveys & HandsUp! Counts

Throughout the Open Streets trial process, Bicycle Network collects feedback from residents, parents/guardians and the school community. The school also submits HandsUp! counts to document how students travel to and from school. This data is used to create the following reports. Further details regarding surveys and HandsUp! counts can be found in the 2022 Merri-bek City Council Open Streets report.

In 2023, Bicycle Network received a low amount of data from its surveys to parents, residents, and the school community. This means that the following data cannot be generalised to a wider population.

Key findings

Throughout the Open Streets trials, Bicycle Network collects data from students, residents and parents to be able to report on active travel attitudes and habits, perceptions of safety in the area and their experience and thoughts of the Open Streets trial.

Overall



63%

Average active travel across all HandsUp! counts at all schools.

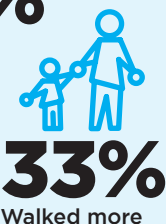
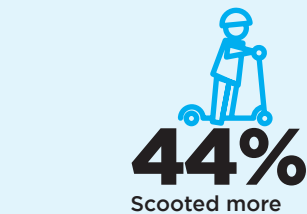


19%

Average recorded increase compared to base rate of 44%.

Across the Open Streets trials delivered at all 4 schools in Merri-bek City Council in 2023, 63% of students used some form active travel for their journey to school of the days of the Open Streets trials.

When asked about their active travel behaviours on the Open Street days:



93%

of parents surveyed felt that the street felt safe during Open Streets trials, compared to only 59% who felt it was safe on a typical school day.



84% of respondents were very satisfied with the events.

Average satisfaction= 4.78 / 5



Students scored the following questions out of 5:

How much do you like riding, walking, scooting and skating to school? **4.4**

How much do you like the street being open? **4.5**

97%

of parents surveyed would like to see Open Streets regularly in the future.

How often?



Qualitative data

“ The open streets allowed the children space to engage in physical activities without being cramped in designated areas or amongst construction. It should be part of future school works to allow children a space to exert their energy. we loved the atmosphere on each of the days, my child was up earlier than usual to get to school and engage with the other children on the open streets. ”

“ My children had so much fun, they socialised with their peers and got to get additional exercise/ movement before school. They were thrilled to be able to take up space that does not usually belong to them and to reclaim a piece of vital infrastructure so close to their school. ”


“ A fun great community way to start the morning! ”



Open Streets report Brunswick South West Primary School May 18th - May 25th - June 1st 2023

Active Travel on event days

71.3%



on average. Highest day 78.26%

Average increase on event days

14.3%



On the days of the Open Streets trials, on average 71.3% of students used some form of active transport to get to school (e.g. walk, bike, scoot, or skating). This is a 24.7% increase in active travel when compared to a normal school day in 2022.

Rode more

55%



of families said that they rode more on Open Streets days.

Walked more

32%



of families said that they walked more on Open Streets days.

Felt safe to walk or ride on South Daly St

96%



of survey respondents felt that South Daly Street was safe to walk or ride on on trial days, compared to only 45% on normal school days.

Would like to see regular Open Streets

90%

of respondents would like to see Open Streets regularly in the future.

How often?

- 24% daily
- 31% weekly
- 18% monthly
- 10% every term
- 6% yearly
- 10% never


Very satisfied

88%






of respondents were very satisfied with the trials.

Star score



Parents & residents gave the trials 4.6 out of 5 stars.

We asked students "What is your favourite thing about Open Streets?" They said:

-  So fun for the community.
- Lillian
-  We can walk on the road and play on the road and use chalk.
- Emily
-  We can ride to school without worrying about cars.
- Angel-Rose

Summary of AIRS Findings - Brunswick South West Primary School

Vehicle Summary Findings

The daily average number of **vehicles entering Moule St from Dawson Street declined by 7%** compared to the control days, whilst **vehicles exiting Moule St onto Dawson Street declined by 3%**.

The total number of vehicles on South Daly Street during the Open Streets Days were on average **53% lower** compared to the control days.

The number of vehicles travelling along Ferriman Street and Collier Avenue during the Open Streets days were on average just **10% greater** compared to the control days (515 average daily total vs 569 control).

Pedestrians Summary Findings

The number of **bike riders using the crossing on South Daly Street increased by an average of 268%** (53 average daily total vs 14 on the control days).

The number of **pedestrians using the crossing on South Daly Street increased by 40%** (116 average daily total vs 83 on control days).

The number of **bike riders crossing Moule Street decreased by 33%** (4 average daily total vs 6 average control days).

The daily average volume of bike riders crossing Ferriman Street during the Open Street days was 18, compared to the average of 6 on the control days, an **increase of 194%**.

The daily average volume of pedestrians crossing Ferriman Street during the survey period was 146, compared to the daily average of 137 captured on the control days, an **increase of 6%**.

Overall Summary Findings

Overall, there was an increase in active transport to and from the school during the Open Streets sessions.

Whilst there was a decline in pedestrian and bike rider activity along the surrounding streets during the Open Streets sessions when compared to the control days. South Daly St where the activities were taking place, saw increased pedestrian and bike rider activity. This trend suggests that the Open Streets sessions impacted active travel patterns around the school with more people choosing to travel directly to the school whilst the traffic control was in affect.

Open Streets report


Oak Park Primary School

Jul 20th - Jul 27th - Aug 3rd 2023

Active Travel on event days

65.2%


on average. Highest day 65.4%



Average increase on event days

14.5%

increase on base rate.




On the days of the Open Streets trials, on average 65.20% of students used some form of active travel to get to school (e.g. walk, bike, scoot, or skating). This is a 14.46% increase when compared to a normal school day in 2023.

Congestion

77%


of the respondents said that Summit Ave is congested on a typical school day.



Rode more

56%

On the days of OpenStreets there was a 56% increase in those students who Rode, Skate or Scooted to School.



Felt safe to walk or ride Summit Ave

86.7%

86.7% of survey respondents felt that Summit Ave was safe to walk or ride on trial days, compared to only 58.8% on normal school days.



Would like to see regular Open Streets

88.9%

of families would like to see Open Streets regularly in the future.

How often?

- 5.6% Every day
- 38.9% At least weekly
- 44.4% At least monthly
- 11.1% Every term
- 0% Yearly
- 0% Never

Very satisfied

82.4%

of respondents were very satisfied with the trials.






Star score

★★★★★

Parents & residents gave the trials 4.8 out of 5 stars.

We asked students "What is your favourite thing about Open Streets?" They said:

-  The road is open to everyone and feels safe. - Luke
-  I can ride on the road safely. - Evie
-  Skipping and hanging out with friends. - Lucy

This report is based on 26 survey responses therefore cannot be generalised to a wider simple population.



Summary of AIRS Findings - Oak Park Primary School

Bicycle Summary Findings

The number of bike riders riding on the footpath to and from school increased by 200% compared to the two control days (24 average Open Streets vs 8 on control days). Bike riders riding on the road to and from school increased by 75% compared to the two control days (14 average Open Streets vs 8 on control days).

The number of bike riders using the sidewalks peaked on the first week of Open Streets (20/07/23), with a total of 34 bikes recorded, compared to 17 bikes on week two (27/07/23), and 21 on week three (03/08/23). All three days of Open Streets recorded higher bike rider volumes compared to the two control days.

Pedestrians Summary Findings

The number of pedestrians walking to and from school increased by 6% compared to the two control days (268 average daily total vs 254 on control days).

The number of pedestrians using the footpath peaked on the first week of Open Streets (20/07/23), with a total of 320 pedestrians recorded, compared to 241 pedestrians on week two (27/07/23), and 244 on week three (03/08/23). Not all three days of Open Streets recorded higher pedestrian volumes compared to the two control days. This might be due to some disturbances of the camera due to strong wind gusts on August 3rd. The amount of pedestrians are estimated to be 10%-15% higher in the two peak hours for each day, as the AI Software was not able to separate all children walking in larger groups and next to taller parents. Movement 13 and 14 were the two most busy movements with a daily average at 72 and 81 users.

Vehicle Summary Findings

The total number of cars using the intersection during the Open Streets Days were on average 25% lower compared to the control days.

During the Open Streets days an average of 514 cars passed by compared to 684 on the control days. Compared to the pre and post study days, the amount of vehicles are decreased from a maximum of 712 vehicles on August 10th to as low as 419 cars on the last Thursday of Open Streets (August 3rd). Movement 10 and 11 are the two busiest movements for vehicles, crossing the two busiest movements for pedestrians walking to and from school.

Overall Summary Findings

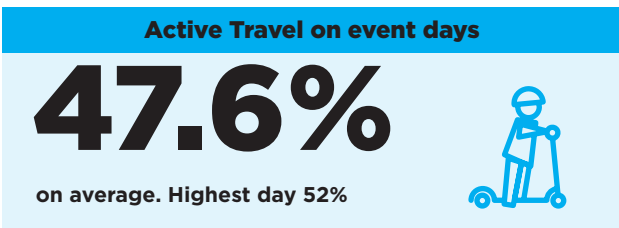
Overall, there was an increase in active transport to and from the school during the Open Streets sessions.

Most pedestrians and bike riders were captured crossing Willett Ave to and from school. Ash Grove Lane is also well used by students and parents walking and riding to and from school, many using Ash Grove Lane cross the street outside of the pedestrian crossings, presenting a possible risk of conflict with vehicles.

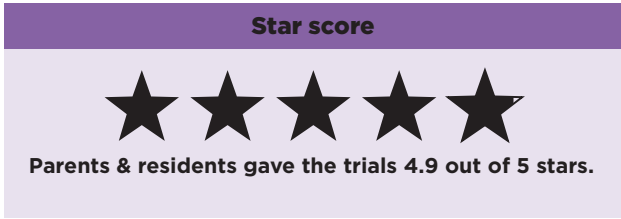
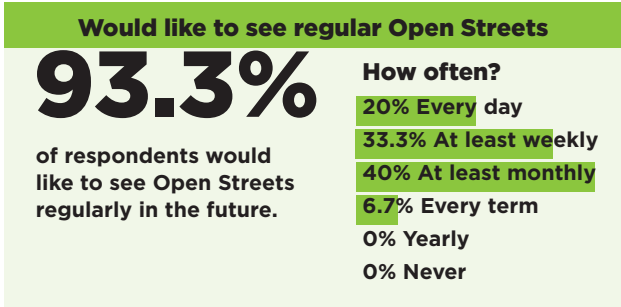
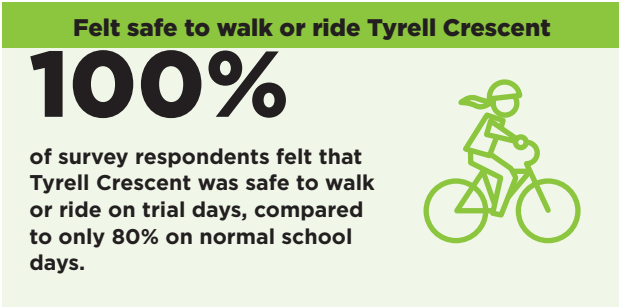
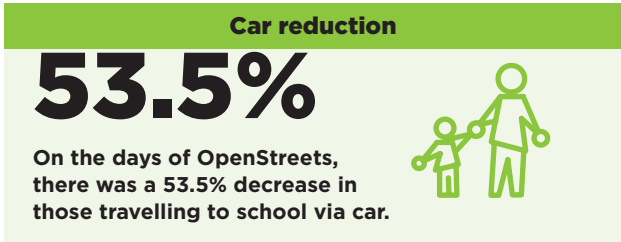
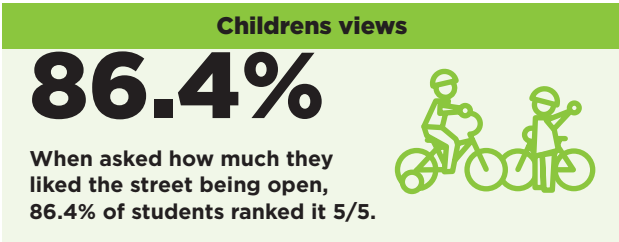
*It's important to note that due to strong winds affecting the camera on July 27th and August 3rd, actual pedestrian and bike rider numbers are likely to be higher than the stated figures.




Open Streets report Fawkner Primary School Aug 15th - Aug 22nd - Aug 29th 2023



On the days of the Open Streets trials, on average 47.6% of students used some form of active travel to get to school (e.g. walk, bike, scoot, or skating). This is a 19.6% increase when compared to a normal school day in 2023.



We asked students “What is your favourite thing about Open Streets?” They said:



I love Open Streets very much. I love to write with chalk on the street.
- Syeda



It's so much fun and it's so free.
- Azhar



Playing and running.
- Sarah

This report is based on 14 survey responses therefore cannot be generalised to a wider simple population.



Summary of AIRS Findings - Fawkner Primary School

Bicycle Summary Findings

The average number of bike riders riding on the footpath to and from school increased by 56% compared to the two control days (25 average Open Streets vs 14 on control days).* There were very few bike riders using the road, on average only around one rider per day. The number of bike riders using the sidewalks peaked on the last week of Open Streets (29/08/23), with a total of 33 bikes recorded,*

Pedestrians Summary Findings

The average number of pedestrians walking to and from school increased by 9% compared to the two control days (48 average daily total vs 44 on control days).* The number of pedestrians using the footpath peaked on the third week of Open Streets (29/07/23), with a total of 235 pedestrians recorded, compared to 200 pedestrians on week one (15/08/23), and 166 on week two (22/08/23).*

Vehicle Summary Findings

The average number of cars using McBryde St during the Open Streets Days were on average only 2% higher than the control days.

During the Open Streets days an average of 372 cars passed by compared to 366 on the control days. Movements north and south along McBryde Street were highest on the first week, totalling 600 unique movements recorded during the survey period.

Overall Summary Findings

Overall, there was an increase in active transport to and from the school during the Open Streets sessions.

Most pedestrians and bike riders were captured using the footpaths on McBryde Street to and from school. Most pedestrians also crossed at the formalised crossings.

*These figures do not include the afternoon session from the carpark site due to a recording error. Actual pedestrian, bike rider and vehicle totals are likely to be higher than the stated figures. Bad weather on the afternoon of August 22nd meant the Open Streets session was cancelled and no data was included in the report from this session.



Open Streets report Glenroy West Primary School Nov 3rd - Nov 10th - Nov 17th 2023

Active Travel on event days


82.3%



on average. Highest day 84%

Average increase on event days

19.3%



increase on base rate.

On the days of the Open Streets trials, on average 82.3% of students used some form of active travel to get to school (e.g. walk, bike, scoot, or skating). This is a 19.3% increase when compared to 3 normal school days in 2023.

Rode more

75%



of parents said that they rode more on Open Streets days.

Walked more

53.5%



of parents said that they walked more on Open Streets days

Felt safe to walk or ride Clovelly Ave

100%



of survey respondents felt that Clovelly Ave was safe to walk or ride on trial days, compared to only 55.5% on normal school days.

Would like to see regular Open Streets

83.3%

How often?

- 17% Every day
- 47% At least weekly
- 19% At least monthly
- 14% Every term
- 3% Yearly
- 0% Never

of respondents would like to see Open Streets regularly in the future.


Very satisfied

86.1%



of respondents were very satisfied with the trials.

Star score



Parents & residents gave the trials 4.9 out of 5 stars.

We asked students "What is your favourite thing about Open Streets?" They said:

// That we have activities & can play all we want!
- Ananya

// Riding my bike
- Bhashika

// Hoola hooping
- Zach

Summary of AIRS Findings - Glenroy West Primary School

Bicycle Summary Findings

The number of bike riders riding on the footpath to and from school increased by 66% compared to the control day (10 average Open Streets vs 6 on control day).

The number of bike riders using the sidewalks peaked on the third week of Open Streets (17/11/23), with a total of 16 bikes recorded, compared to eight bikes on week two (27/07/23), and seven on week three (03/08/23). All three days of Open Streets recorded higher bike rider volumes compared to the control day.

Pedestrians Summary Findings

The number of pedestrians walking to and from school increased by 137% compared to the control day (209 average daily total vs 88 on control day).

The number of pedestrians using the footpaths peaked on the third week of Open Streets (13/11/23), with a total of 268 pedestrians recorded, compared to 259 pedestrians on week one (03/11/23), and 100 on week two (10/11/23). All three days of Open Streets recorded higher pedestrian volumes compared to the control day. The pedestrian volumes during the second week were approximately half of the totals recorded on weeks one and three. This may in part be explained by the high temperatures that day.

Vehicle Summary Findings

The total number of cars using the intersection during the Open Streets Days were on average 14% lower compared to the control day.

During the Open Streets days an average of 366 cars used the roundabout compared to 420 on the control day. Compared post study day, the amount of vehicles decreased from a maximum of 414 vehicles on November 3rd to 337 cars on the last Open Streets session (November 17th). Movement 6 and 10 along William Street are the two busiest movements for vehicles.

Overall Summary Findings

Overall, there was an increase in active transport to and from the school during the Open Streets sessions.

Aside from the second week of the Open Streets sessions, where the temperature reached 34 degrees, we saw pedestrian numbers more than double what was recorded on the control day.

The single AIRS camera location was only able to capture pedestrians and bike riders using the footpath on Clovelly Avenue on their way to and from school. Additional camera locations would give a better idea of other routes to the school and may in part have been able to explain the lower totals recorded on the November 10th.

Learnings from 2023

Throughout the Open Streets trials in Merri-bek City Council in 2023, we learned a few things about how we can improve Open Streets.

Community feedback

At the 4 schools that Bicycle Network delivered Open Streets trials in 2023, Bicycle Network received limited responses to the pre event and post event surveys.

Surveys are sent to parents through on-line communication portal and mailbox delivered to those living in nearby streets. Residents are notified of the event, and then invited to provide pre and post survey feedback via a QR code and direct website link on printed flyers. There are also email and phone contact details on all flyers for any residents with questions or concerns.

Community engagement is important to the event as these trials are delivered to benefit both the school and the local community, and to set the stage for school-led Open Streets in the future if the trial is successful.

Low survey responses from residents may mean that they are indifferent to the trials and have no feedback to give. It may mean the format for giving feedback is not easily accessible. Whatever the reasons are, there is a need to more deeply engage with residents to hear their thoughts, positive, negative or indifferent, to ensure we have a holistic understanding of the impacts and future opportunities of Open Streets.

We recommend that Bicycle Network continue to work with Council to understand the best approach for encouraging resident feedback, and ensure each approach is suited to the needs and demographic of the community the trial is being delivered in. Work on engagement with residents, and the ability for Bicycle Network to proactively address low response rates as the engagement period is open, should be prioritised in future trials.



Challenging locations can work

With a tailored approach, Open Streets should be an initiative that all schools are able to trial, regardless of their location and surrounding street network. Merri-bek Council wanted to trial running Open Streets on a slightly busier council managed road than usual, and one that had a semi-regular local bus route along it. This was to see if schools that have slightly more challenging location can still benefit from Open Streets. Council & Bicycle Network worked with the bus provider to arrange a slight detour of the route at specific times in the morning and afternoon, and ensured that all required stops and routes were still maintained. The bus company was happy to support the event. On the days of Open Streets, two additional Bicycle Network staff members were on hand if needed to redirect the bus, which was difficult on one day where the bus had a delay. Running an Open Street at a location such as this can be done successfully with the support and collaboration with bus providers & Council, however extra people resourcing should be considered to support the associated logistics.

School and parent involvement

Open Streets trials are a better experience for all when the school staff are visible and are engaged in the running of Open Streets. At Glenroy West Primary School, the school added their own elements to the Open Street trial. This included running a sausage sizzle and cake sale to raise money for new bike racks.

Having school staff champion the event and contribute to leading other activations on the day can really help embed the program in the school and local community. There are also opportunities to engage more parents in the delivery and activation of the event, which can kick start the process for a parent volunteer program. Merri-bek Council have recently launched their school-led Open Streets program, and engaging more parents in the Open Streets trials is something Bicycle Network and Council aim to explore in future trials.



Open Streets 2023 Report

This report has been prepared by Bicycle Network and reviewed by Merri-Bek City Council.

For enquiries regarding Open Streets please email ride2school@bicyclenetwork.com.au

For enquiries regarding Ride & Stride, please email zerocarbon@merri-bek.vic.gov.au

