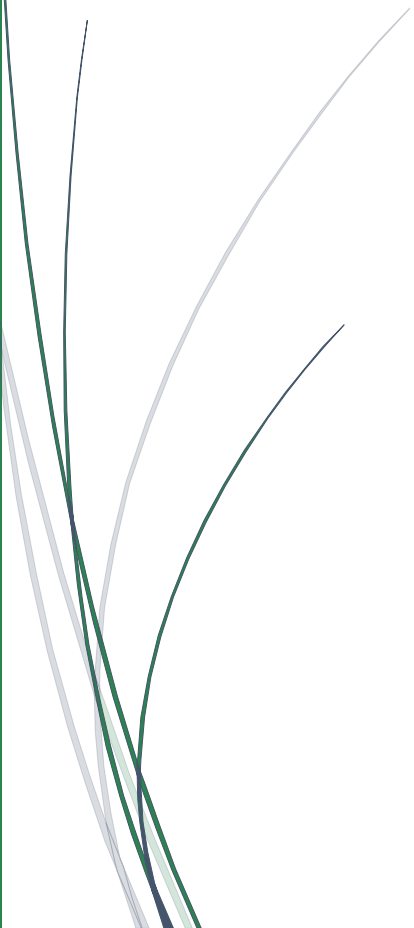




Liveable Streets in St. Albans

A CASE STUDY ON ST. ALBANS, CHRISTCHURCH



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Executive Summary

- St. Albans is a large suburb located in Christchurch, New Zealand.
- The St Albans Residents Association (SARA) have become concerned about the proposed council plans to extend the Northern Arterial corridor. This would result in an extra 25,000 cars traveling through the suburb (*Christchurch Northern Corridor Downstream Effects Management Plan (DEMP)*, Christchurch City Council [CCC], 2018).
- Background research of the suburb along with input from community partners, helped form the research question, 'With the addition of the northern arterial corridor extension, what do St Albans residents' value about their streetscapes?'
- The main project objective was to gather thoughts about the St Albans streetscapes from the community.
- Two different methods were used to gain information from the community. These methods were a questionnaire and an activity for school children.
- The results show that the respondents value greenspaces, bluespaces, community areas, and the presence of people.
- There are mixed opinions on street safety, including cycleways, parking, street crossings and narrowness of streets.
- Limitations of the research include majority of the survey respondents being female, as well as having a limited amount of children for the focus groups.
- Further research could more work can be done to better understand the feelings of St Albans residents on what they value in their neighbourhoods. As well as looking further into the Christchurch City Council's potential traffic calming measures in the area.

Introduction

This report discusses what St Albans residents enjoy about their community, in an attempt to answer the question, “What do St Albans residents value about their streetscapes?” The purpose of this report is to explore what the community likes seeing or would like to see in their neighbourhood. The motivation behind asking this question was due to the Northern arterial motorway being implemented, which will bring an extra 25,000 vehicles through the suburb of St Albans. The goal was not to stop the opening of the arterial extension, but to get involved with the community and see what they enjoy seeing in their neighbourhood. The information gathered from the report will be passed on to the St Albans Residents Association to allow them further action on how they want to spend funding throughout their community in the future. The main methods of collecting data from the residents of St Albans was through an online survey and focus groups in schools.

The current plan for the extension to the Northern Arterial motorway involves creating new sections of State Highway 74 that connect to QEII Drive and then connecting that new road onto Cranford Street into the suburb of St Albans. There have been plans for the development of the Northern motorway since 1962 (NZTA, 2013) with the goal of expanding the road network to the North of Christchurch. However, the current plan of having the motorway flow onto Cranford Street has been presented by the city council over the last 20 years (NZTA, 2013; CCC et al., 2001). There would be a greater capacity for road traffic from towns such as Kaiapoi and Rangiora and when paired with the expansion of Cranford Street would provide a direct road into the central city of Christchurch. The council has acknowledged that this could cause significant changes to the suburb of St Albans due to the increase in traffic volume (*Proposed changes to Cranford Street and the surrounding area*, CCC, 2018).

Literature Review

There has been a significant amount of community response to the planned changes to the Cranford street area. This has included Change.org petitions, protests at council meetings, alternative options created in the form of 'Can the Plan' (Wilke, 2019), as well as an abundance of feedback to proposed CCC plans in 2018 and 2019. The community has been back and forth with the council to ensure that the impact of the additional traffic is as mitigated as possible. Some of the main themes identified from the feedback to CCC (2019) plans were the following main ideas;

- People, not cars
- Retaining a sense of community
- Safety, particularly for people walking, biking, and accessing local schools

This feedback was used as the baseline for our research to see in what way the residents of St Albans imagined these themes for their streets. Most of the feedback however focused on what the residents of St Albans don't want their, mainly that they do not want the changes proposed by the council and the increase in traffic through the suburb. A lack of positive alternatives was something noted to be lacking in the feedback to council plans. What the residents of St Albans wanted in their streets turned into the focus of the project as that was something missed by the council research.

Streets are a significant part of how individuals and communities interact with the urban environments around them. Motorised traffic and the expansion of roadways often has a significant impact on the nature of a suburb and the ability of residents to feel connected to their community.

There is no shortage of literature surrounding how people interact with their streets and what is the best way to create liveable streets in various communities around the world. For St Albans there was a desire to investigate how streets could become destinations and proper community spaces in the way that was described by Donald Appleyard (1981). The

importance of putting people first when designing spaces is emphasised. There are many ways that this can be accomplished including right of ways for pedestrians, prevalence of public spaces, quality of sidewalks, and reducing traffic speed. These are all dependant on the individual neighbourhood and what the community wants from their streets. Engwicht (1999) argues that the introduction of motor vehicles in large numbers onto residential streets has converted streets into single use areas that ignores the range of possible uses by the communities that use them. Sauter & Huettenmoser (2008) found that in Switzerland streets with slow-moving traffic, limited space for parking and good environmental qualities offer a large potential for personal development, contentment and social integration. Neighbourhood contact in such areas are more frequent, intensive and the separation effects substantially smaller.

On the concept of community severance, the work of Wiki, Kingham, & Banwell (2018) was applying the concepts of Appleyard onto Papanui, Christchurch. This is a suburb adjacent to St Albans and they share similarities in density and population demographics which means that it can be applied in part. Community severance of these places was not significant until high levels of traffic flow through neighbourhoods

The work of Jacobs (1963) focuses on the impact of cars on a neighbourhood and what is lost by not prioritising people though her concept on eyes on the street. The prioritisation of people over cars was a focus of Jacobs work and the similarities could be seen to the motorways of 1950's New York and the situation occurring in St Albans. 'People, not cars' was a desire from the residents of St Albans for their streets. The wider idea of eyes on the street could be adapted to the lower density streets of S Albans to promote the safety of residents

As mentioned previously there was already a significant amount of written and verbal responses that provided a range of feedback. This meant that the survey was able to focus on specific questions about what people value about their streets. Building off of the work of the city council the questions were built to fill the gaps in knowledge about what the

residents of St Albans. Preserving a sense of community by reclaiming the places that people say are their favourite is important to foster a sense of community and shared experience (Engwicht, 1999). The importance of safety as well especially in the context of school children was something raised by the residents in the council responses but not explored further. Attempts were made both with how the survey was constructed to allow for a diversity of perspectives to be gathered that ties into the methodology of how it was distributed which will be discussed later. Ensuring that a range of perspectives are gathered make sure that marginalised voices are raised up and not ignored by the political process (Smith, 2008).

Hearing the perspective of children provides an opportunity to gain a point of view that is often ignored in the urban planning process. The political imagination of children is also often greater as they are less constrained to the existing narratives that are occurring in the community (Hayward, 2012). Children are both current and future citizens and should be respected as the active community members that they are and will be. When connections to place are created at a young age it is more likely that there will be a longer lasting, stronger connection (Hayward, 2012. & Freeman & Tranter, 2010). Hayward worked within the suburb of St Albans with focus groups of children to understand how they interact with the political process and the environment around them. Their work was used as a basis for gaining the perspectives of children from the primary schools within the area. Respecting the children of St Albans as having valuable input onto the future of their streets both now and in the future creates a stronger case for how the streets should be designed for all participants. The urban design principles is also something used in the '8-80' campaign of designing urban areas for all of the users of the streets from young people to the elderly (Curl & Musselwhite, 2018).

Bruce Appleyard (2017) worked with primary school aged children to map their local communities to understand their connection to the community around them. This is something that can be used to get children's' perspectives in the suburb of St Albans

through a simplified method that is conscious of our restricted time frame. Community mapping is a useful tool to see how people interact with their streets throughout their lives and on a day to day level. It points out areas of possible conflict between residents and the streets as well as positive places that people feel connected to. Appleyard also notes the importance of limiting a child's exposure to traffic and how that impacts on the sense of space for children in San Francisco. This is important to understand in the context of the additional traffic that will be flowing through St Albans with the CCC plans.

Methods

Survey

The survey was used to gather information from St Albans residents about what they value in their neighbourhood. This helped us to answer our research question of what do people value in their streets. The survey allowed us to explore different features in streets and see if there are any correlations between certain features and how people feel about them. This will assist the St Albans Residents Association in knowing what residents value and what features they use in the neighbourhood. The survey was created using maptionnaire.com, an online questionnaire building a website that allows users to drop pins on maps for answers. The biggest benefit of using this type of survey is that people can place pins on a map. This feature allowed people to indicate on the map where their favourite places were and places they felt safe, unsafe etc.

Some of the questions that were used were based on Lucy Saunders work guide to healthy streets that was built alongside Transport for London. This guide has been applied worldwide to different suburbs and cities. The guide is based on 10 indicators of a healthy street which focuses on the experience of people using streets (Transport for London, 2017). The healthy streets approach aims to make streets healthy, safe and welcoming for everyone. The guide is also referred to in the CCC downstream management plan as something that could be used to review the effects that the northern arterial corridor extension could have on the St Albans community (*Christchurch Northern Corridor Downstream Effects Management Plan (DEMP)*, CCC, 2018). These questions allowed people to rank how they felt about different aspects of their streets as they are currently and provide a baseline for any future changes that may take place on the streets of St Albans.

The questions around traffic calming and what people would like to see on their streets to help mitigate the impact of traffic was taken from the CCC survey about the proposed changes (*Proposed changes to Cranford Street and the surrounding area*, CCC,

2018). This was done to expand on the data collected by the CCC and focus on one of the few areas where the council asked about what should be in the streets.

At the start of the project we went along to the monthly SARA meeting to promote our research. This meeting allowed us to make connections within our community partner to later be able to promote our survey through their social media accounts and monthly newsletter. Three churches in the area were visited to promote our survey which were Rutland St Church, St Albans Baptist and Empower Church. One Friday afternoon from 3pm-4:30pm was spent in Edgeware village to promote the survey. This was in attempt to reach residents that may not have the internet at home or had not heard about the survey. During our time in the village, tablets were also provided so people could fill out the survey there if they wished. When analysing the survey, the Maptionnaire programme produced a number of graphs and correlations in an excel file to show the results. Within excel, a manual analysis of the six healthy streets indicators was also conducted.

Focus Groups in Primary Schools

The focus groups in primary schools allowed a similar research style to those in our literature. Out of the five primary schools in St Albans, only two were able to participate in our research sessions. The focus groups were held at St Albans Primary School with years 5-6 and St Francis of Assisi years 7-8. Due to the nature of the activity sheets parental consent was not needed, however children were given the option to participate or not after seeing the sheet. To ensure the children knew what to be drawing they were asked questions around what they felt ultimate meant. This ensured that children understood the concept without leading them to certain ideas.

To complete this drawing an activity sheet was created to guide the children, as shown in figure 1. One side of the activity sheet was used for drawing their ultimate street on the reverse it asked them to list what they would and wouldn't want to see on their street.

The written component was made to ensure children had multiple ways to communicate their ideas. The activity sheets from the schools were collated by counting similar symbols on the ultimate street picture, adding to the words about 'liking' and 'not liking' different aspects of streets. These were then analysed in excel with summary statistics and graphs were produced to show the results.

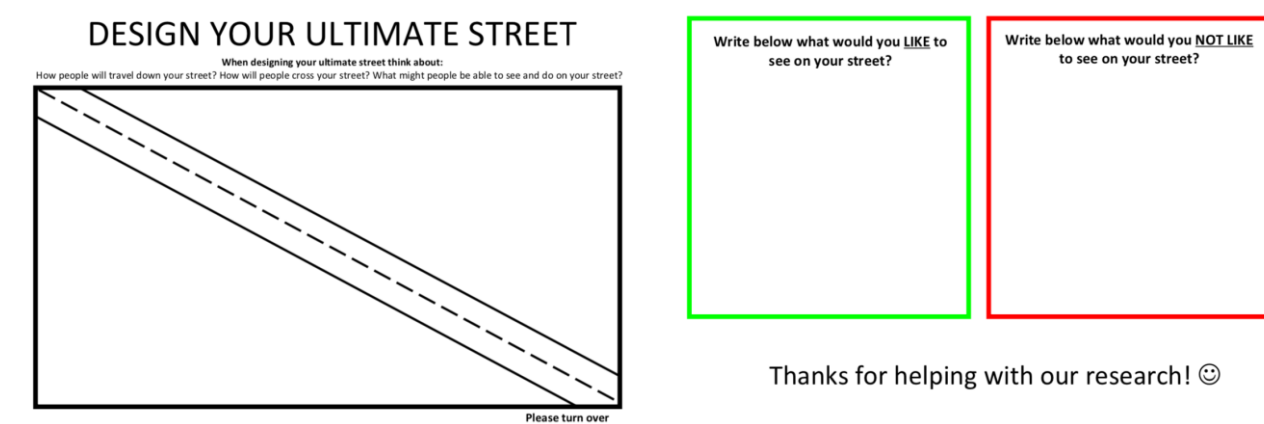


Figure 1 – Front and Reverse of the 'Draw Your Ultimate Street' school activity

Attempted Methods

To understand how the disabled community use their streets, prominent members of the disabled community in St Albans were contacted. This however was unsuccessful as there were no responses to our offer. Councillors that have previously interacted with similar topics in the area were also contacted, however, they also did not respond. Rather than just promoting the survey in the Edgeware village, a community barbeque was going to be held in the St Albans area. This idea was partly about enabling conversations around St Albans streetscapes and partly to promote our online survey. However, due to health and safety concerns from surrounding businesses and the time of year, the barbeque was unable to be held.

Results and Discussion

Maptionnaire Survey

The Maptionnaire survey was open for a short three weeks and received 92 responses; 75% of these were from 36-64 year olds. Interestingly, 78% of respondents identified as female, 21% identified as male and 1% preferred not to say.

Following on from Saunders Healthy Streets (2018), figures 2 and 3 are reflective of the survey respondent's general thoughts about the streets of St Albans. Of the six indicator questions, 'green features', 'attractive streets', 'traffic intimidating', and 'noisy streets' had means of 5. Whereas, 'footpath quality' had the lowest mean of 4 and 'easily cross street' had the highest mean of 7. In response to whether people could easily cross the street, the most common response was a 10 (Table 1 in appendices).

People's responses to the questions have varied depending on their own circumstances. For example, a person's perception of a busy street might differ if they live near a main road, compared to a person that lives on a side street. In the same way, this could explain the higher average for 'easily cross streets'. Perhaps those who said it was easy to walk across the street all lived on quieter roads with less traffic, or there are pedestrian crossings and traffic lights to assist in crossing the road.

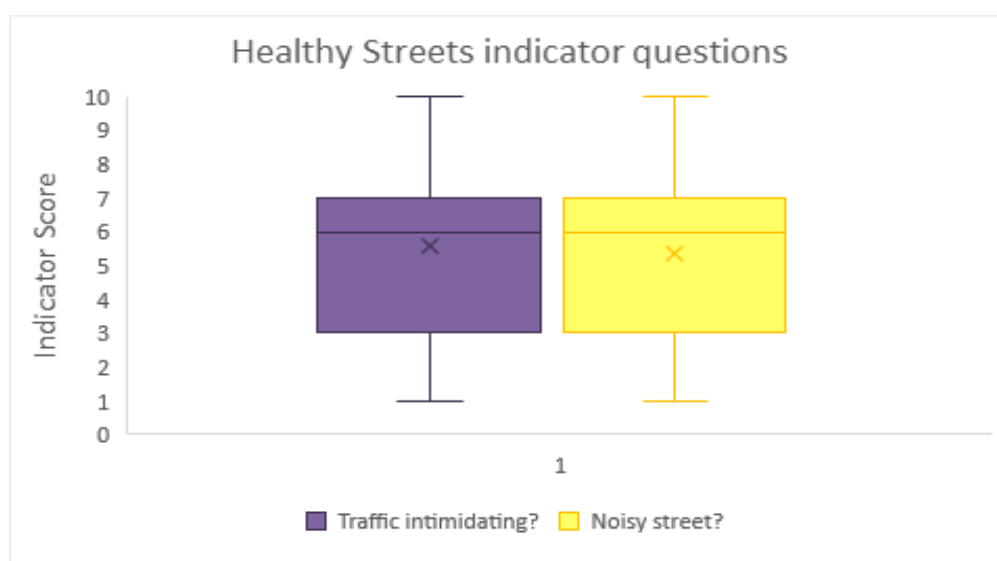


Figure 2. Boxplot Showing the Indicator score for the Healthy Streets Indicator Questions

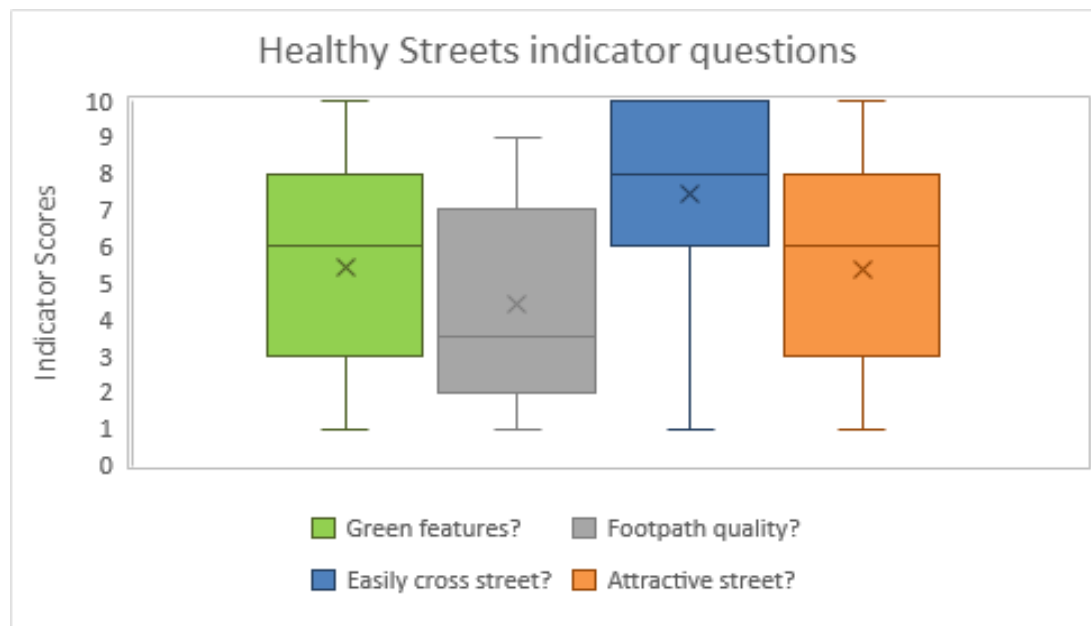


Figure 3. . Boxplot showing the indicator score for the Healthy Streets indicator questions

Similar to Appleyard's (1981) ideas on liveable streets, the survey asked what limits and encourages people to walk and cycle more on their streets (figures 4,5, 11 & 12). 95% of respondents said they felt safe walking through St Albans during the day, which dropped to 59% when walking around at night. Aside from the 42% of people who said they already walk often, the largest limitation was the lack of nearby facilities within walking distance (figure 11). This idea followed through when asking what would encourage people to walk more. Improved quality of pavements and better safety around traffic were the top two contributors (figure 4).

The results around limitations and encouraging factors for cycling were slightly different, where 42% of people said that cycle safety throughout the day was not applicable, 41% said they felt safe, and the remaining 17% did not feel safe during the day. Interestingly, 49% of respondents said they felt safe cycling at night. This could be because there is less traffic on the roads at night, but further research would be required. Figure 12 shows key limiting factors to cycling as already cycling (25%), not wanting to cycle (23%), and roads not being safe (22%). Therefore, important encouraging factors were improved

cycling infrastructure (22%) particularly on the main roads, secure areas to leave bicycles (21%), slower speed limits for vehicles (20%) (Figure 5). Many of the factors that might encourage the respondents are also factors which are out of control for an individual cyclist. This would indicate that most of the limitations that people see to their ability to cycle on the streets of St Albans are structural and based on the design of the streets. People need to feel safe and secure in order to feel empowered to cycle in the suburb, this can only be achieved by ensuring that streets are designed to protect people.

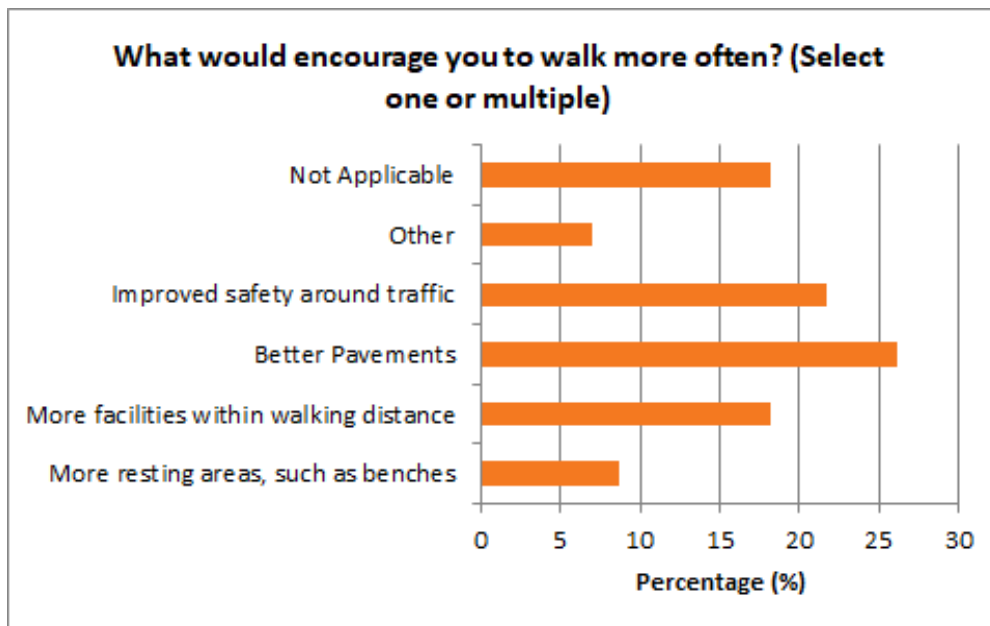


Figure 4. Graph showing factors that encourage people to walk more often.

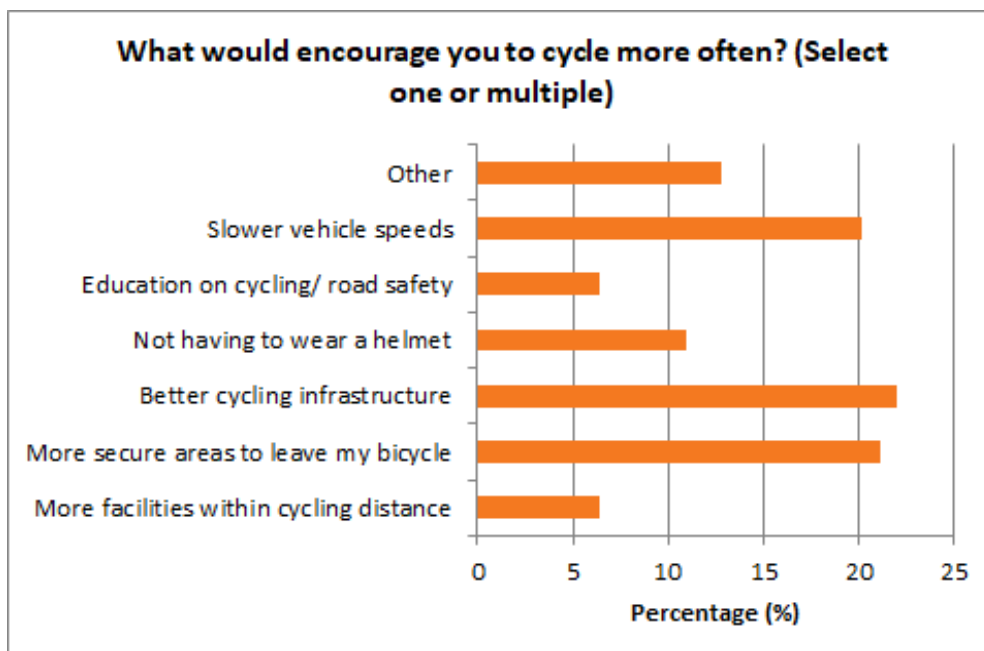


Figure 5. Graph showing factors that encourage people to cycle more often.

People have different ideas of their ideal streets however, there was an emphasis placed by many on their streets being filled with both greenspace and people. This question provided an opportunity for people to describe, however creatively, the things which they value and want to see on their ideal street (Figure 6). The survey found that there are already many concerns and complaints about traffic flow and speed of traffic, even before changes to the road systems are made. Many stated that their ideal street would feature either less traffic or reduced speed so that people would be safer to move around as they wished. Parents marked safe spaces around road crossings, especially around schools and unsafe places where there were no adequate road crossings. This ties into some of the responses provided by the children themselves as well as concerns raised about the ability for people to cross their streets.

There were mixed opinions on street parking, the narrowness of streets and cycleways. Some respondents expressed that they felt there is too much street parking and others saying there is not enough that appeared to be unrelated to where they were located within St Albans. A general concern was raised about the lack of parking and the distribution of parking around public areas including churches and schools. It's important that streets and neighbourhoods are constructed in a way that supports people taking alternative modes of transport that does not require as much parking and creates more inclusive streets. Engwicht (1999) mentioned the dangers that on street parking can have on a community due to the removal of common spaces and the ability to freely move within streets.

Survey respondents had split opinions on the width of streets in St Albans. Some of the respondents expressed that the streets in St Albans are too narrow and dangerous, however, the other half of respondents indicated that the streets are adequate. The major difference occurred around whether people felt safer from cars on narrow streets or if they felt like the speed of cars made narrow streets dangerous. This could potentially be addressed through greater controls on speed within narrow streets as well as other traffic calming effects or widened footpaths with barriers to the traffic and accompanying crossings. Another major difference that appeared in the survey responses was over the issue of

cycleways and cycle Safety. Some residents praised the existing network of cycleways and attempts to improve cyclist safety while others connected it to the issues of losing on street parking and the narrowing of streets. Securing safety on the streets for all uses should be a priority to mitigate this feedback as ensuring that cyclists are separated from the road as well as the majority of pedestrians would be likely to quell some concerns.



Figure 6. Word Cloud showing what people wanted on their ideal streets.

School Focus Group

The 'Draw your Ultimate Street' activity was completed by 43 children in years 5 to 8 from two schools in St Albans. The activity found that 88% of the children indicated that they wanted to see trees on their ultimate street. 91% indicated that they wanted to see some sort of greenspace and 95% indicated that they wanted houses on their ultimate street. 65% of children mentioned that they would not like to see rubbish on their streets, 35% mentioned that they would not like to see crime and 11% mentioned that they would not like to see traffic.

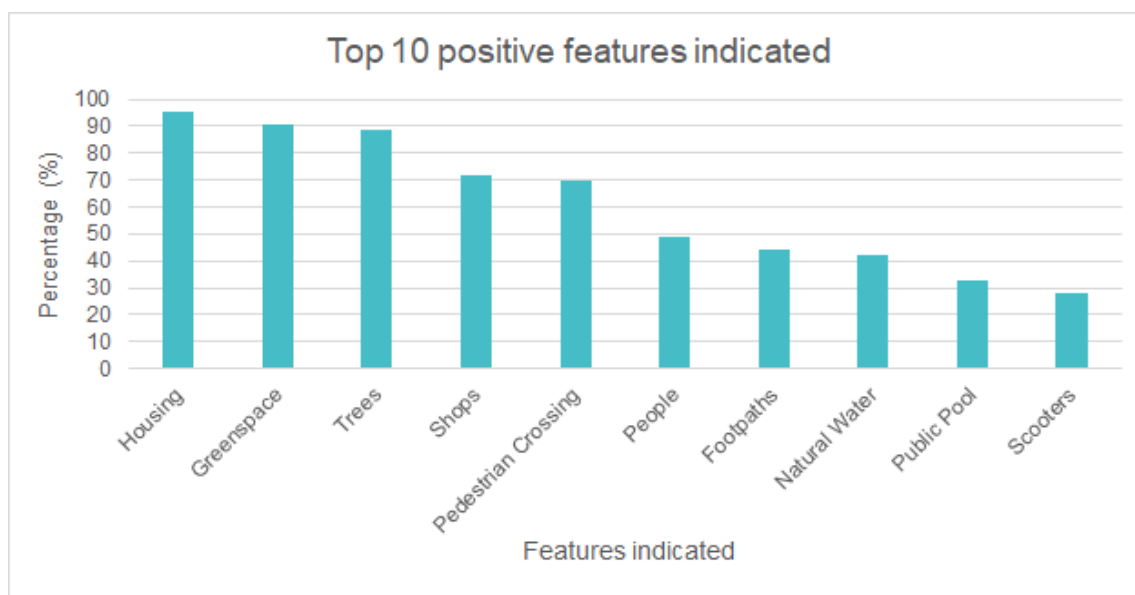


Figure 7. Graph showing the positive features indicated in the 'Draw Your Ultimate Street Activity'.

Figure 5 shows the top ten collated positive features that the children from the school focus groups valued and wanted to see in their streetscapes. These features included but were not limited to: housing, greenspace (public parks), trees, shops, pedestrian crossings, people, footpaths, natural water features (ponds, lakes, rivers) public pools, and scooters (children's scooters, not motorised vehicles e.g., Mopeds).

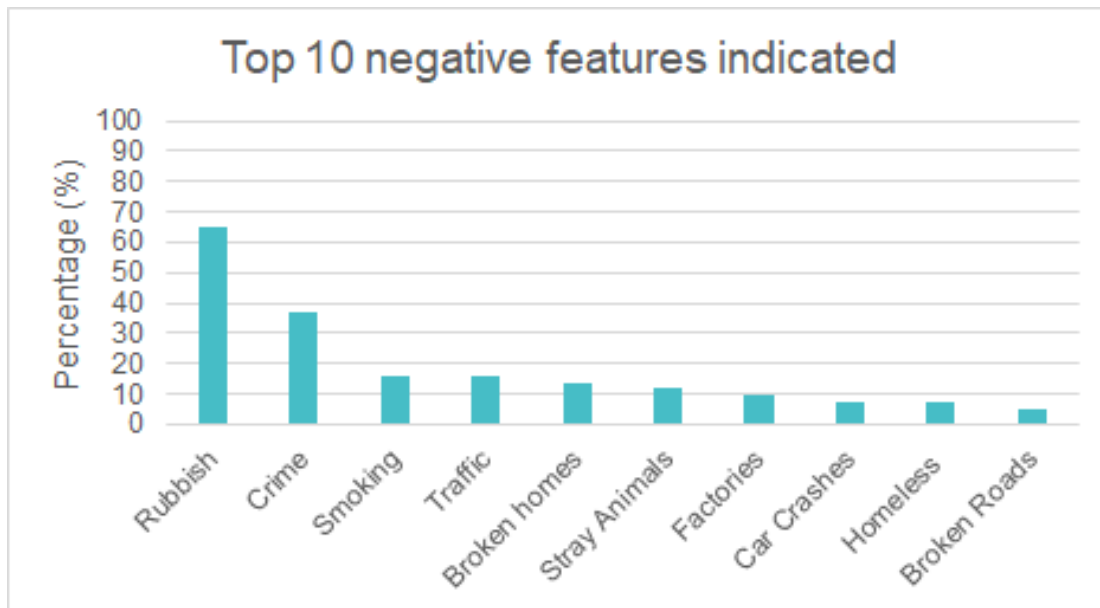


Figure 8. Graph showing the negative features indicated in the 'Draw Your Ultimate Street Activity'.

It is important to note that in the school focus groups, the data only shows what the children value based on the frequency of how often the feature appeared in the drawings. This is due to the fact that the group had limited access and time with the children. The aim of the activity was to be fun and more visually inclined as opposed to being more written answers. In the Maptionnaire survey, the answers were heavily reliant on written answers as the survey was designed for adults.

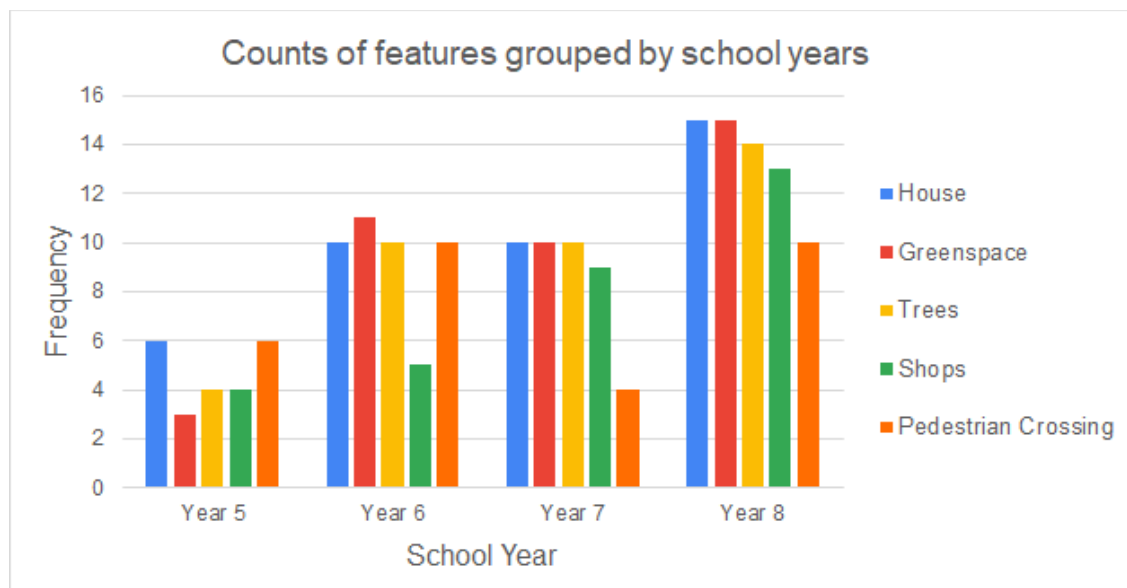


Figure 9. Graph showing the counts of features grouped by school years

A key element that figure 8 above shows is that there were more year 7 and 8 students than there were year 5's and 6's. This means that there were a higher number of older students participating in the activity than younger students. It could be interpreted that the older students may have had a greater understanding of the activity than the younger students. The younger students tended to have more unrealistic ideas of what should be in an ideal neighbourhood compared to the older students. The year 7's did not seem to have put many pedestrian crossings compared to the other demographics. The year 5's and 6's were also from one school, and the year 7's and 8's from another school. This may have meant that the children were brought up learning different things and appreciating and understanding the various aspects of what makes a healthy neighbourhood. Because the children were from different year levels and schools that were located in separate locations, the different crossing availabilities located in the area may have influenced this answer. The year 8's in general had some of the most comprehensive responses in their drawings as seen in the graph. This showed that clearly the older the students were, the more they understood what makes a healthy and happy community. To overcome these differences if this activity was to be done again, a wider range of children across several different schools

and ages would have been beneficial. This would have allowed a greater range of data and less bias.

There was a strong theme between both the children's perspectives as well as the survey that there should be a focus on community spaces. For the children this manifested as open greenspaces, bluespaces, and spaces for games or community interaction. The results from the survey focused largely on greenspaces and the desire for streets to be people focused. Allowing for interaction between the community on a street level was highlighted as being important to the residents and a fear was that they would lose what they already had with an increase in traffic. The favourite places that people selected fit into the work of Engwicht (1999) of what people value before they are able to reclaim their streets (figure 10). They focus on the few public spaces that exist such as the Edgeware shops and parks in the area. Very few people put their places in their streets which was something that would be expected from communities who don't feel a sense of connection to the street but to the places around streets such as schools, parks, and community spaces.

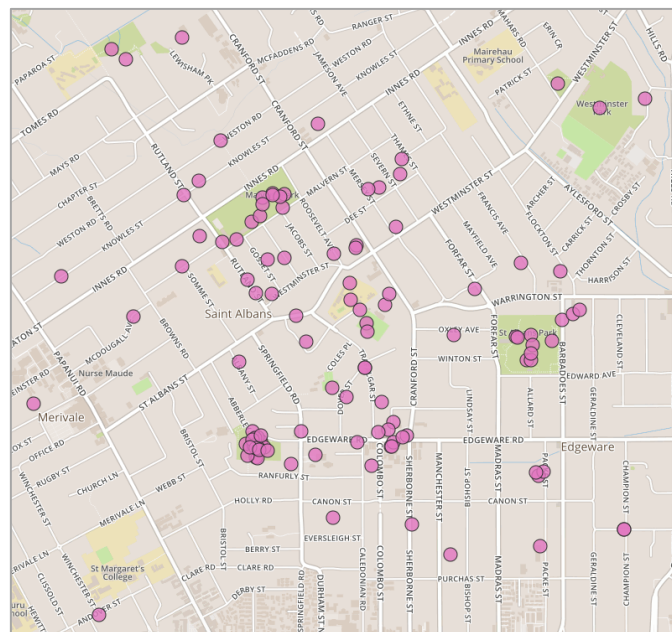


Figure 10. Map showing the locations of selected favourite places by the respondents to the Maptionnaire survey.

The main differences that appeared between the perspectives of the children and the results of the survey was the level of political imagination about what could be done in their suburb. As Hayward (2012) and Freeman & Tranter (2010) both found that children were more disconnected from the entrenched political reality. They were able to create plans and ideas that focus on the desires of children rather than what is possible. When taken as an abstract the ideas of the children do match up in many ways to what the wider community also said they wanted to see in their streets. The survey produced a desire for minor changes and a preservation of what is already present in the suburb of St Albans. The children show a level of political imagination about what they want their community to be in the future.

Limitations

Limitations with the Survey

To promote the survey we went into the community and had tablets available to residents to complete our survey. This was to help overcome the limitation of including community members that may not have had internet access at home. Due to the time, day, and weather, it meant some people struggled to see the screens or were in a rush to go somewhere. For future community surveying it would be useful to have paper copies to be less time consuming. Older people struggled to use the iPads, which resulted in us having to fill out the survey for them. This meant that some of the longer answer questions were lacking in detail as they were not able to sit and fill out the survey themselves with more time.

From the survey results, we discovered that the survey respondents were 78% female. This meant that we had a large bias towards females filling out the survey and male opinions were scarcer. Females in the age brackets 36-50 made up most of the respondents, perhaps because women at this age are stay at home mothers. This is not uncommon in surveys as shown by Smith, 2008. At the first SARA meeting we attended, we noticed a majority of people at the meeting were female. As we were discussing our survey, perhaps by word of mouth female attendees passed on the survey details to other female friends. This might have been why there were so many more female survey respondents than male.

The University of Canterbury's subscription to Maptionnaire expired the weekend we closed the results. This meant that we missed out on several responses as we could no longer log on and access the raw data from all of the surveys. As we have no way of knowing what other responses are on the website for us to check, if at least one of these surveys was in favour of the motorway it would have skewed our data completely.

The survey provided people with the option to rate certain aspects of their neighbourhoods using a tool where you slide a cursor along a bar to give it a rating from 1 to 10. On this scale, 1 was a poor rating and 10 was an excellent rating. The sliding cursor naturally sat at 5 before being moved. If the respondent did not touch the cursor and left it sitting at 5, the answer was recorded as 'no response'. However, if the respondent moved the cursor either up or down the scale and then back to 5 then the answer was recorded as a 5. This meant that in the raw data it seemed as though lots of people had not answered the question. This made it difficult to create graphs and statistics from the raw data using excel.

Limitations with the Focus Groups in Primary Schools

The focus groups in primary schools also had many limitations. Due to the layout of classrooms the children were open to being biased by each other. When delivering the instructions to the activity, words like 'trees' and 'pedestrian crossing' were not mentioned to avoid influencing the drawings. However, when the children were completing the activity they were sitting next to each other and talking about what they were drawing. This meant that some children were not drawing what they wanted on their streets, but what their classmates around them were drawing.

Due to the age demographic of the children who completed the activity, some may not have fully understood the concept. Time constraints for when we needed to have data collected by meant we were only able to hold focus sessions in two schools, decreasing our sample size.

The parents' influence on the children may have also led to some bias. Depending on how informed the children were about what is happening around them and how involved the parents are with the community may have impacted some of the results in the drawings.

Using high school students would have been helpful for future research. From what we can see in the graphs, the older the students were the more Healthy Streets features

they drew in their drawings. Having a high school focus group would be beneficial should the project be done again. More schools getting involved would be useful in the future to provide a greater scope of what children think across many different year levels. Unfortunately due to lack of some schools enthusiasm to get involved this was not possible.

Conclusions

Overall, this research shows that the residents of St Albans value greenspaces and community spaces in and around the suburb. The feedback received from the survey also indicated that people want their suburb preserved and protected from any major changes that would be brought by the introduction of the Northern Arterial Corridor.

On the 23 of September the council decided to move forward with the major changes to junctions along the DEMP with the open ended idea that further consultation is needed on traffic calming on various streets and measures to stem the flow of traffic from the northern extension including investigating ideas such as;

- A park and ride facility near QE2 drive.
- Pricing mechanisms to manage future traffic demand.
- North and south-bound peak-time Public Transport lanes on Cranford and Sherborne Streets.

While preventing the changes proposed by the council entirely seems difficult at this stage there is still a lot of work that can be done to prevent significant changes to the suburb.

Future research could focus on understanding further the wishes of the St Albans residents. This can be done by surveying a wider range of perspectives from different demographics. It will also be important to keep tracking the health of the suburb as the effects of the additional infrastructure and vehicles become a reality.

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Appendices



Figure 11. Graph showing what limits the respondents from walking more often.

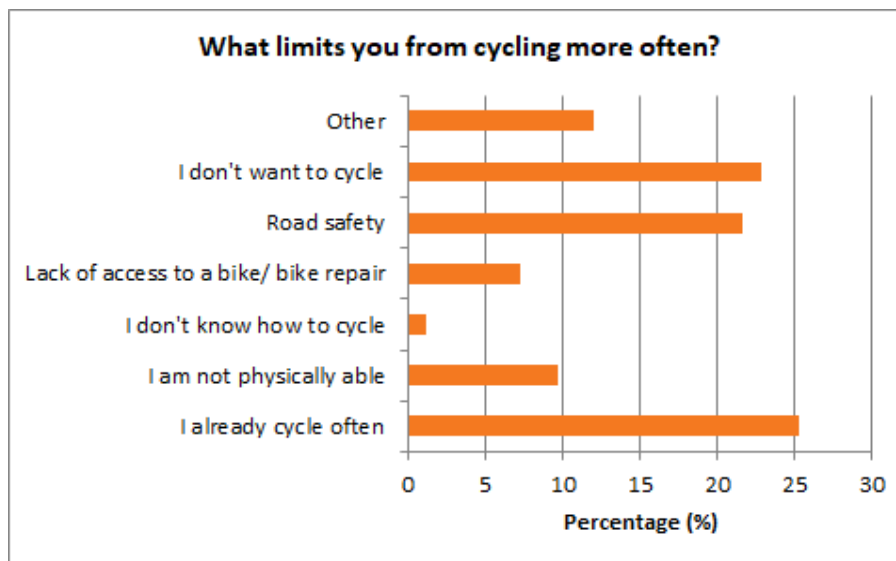


Figure 12. Graph showing what limits the respondents from cycling more often.

	Minimum	Mean	Maximum	Mode	Frequency of Mode	Total responses for question	Missing data values	% missing
Green features?	1	5.44	10	3	14	81	11	11.96
Footpath quality?	1	4.42	9	3	19	78	14	15.22
Traffic intimidating?	1	5.57	10	7	20	79	13	14.13
Noisy street?	1	5.32	10	7	15	77	15	16.30
Easy to cross street?	1	7.43	10	10	25	80	12	13.04
Attractive street?	1	5.38	10	3	14	76	16	17.39

Table 1. Showing descriptive statistics for the Healthy Streets Indicator questions.