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Manchester Urban Institute

Governing Urban Transformation

Understanding What Works: Suggesting Improvements to the Wilmslow Road Cycleway between Withington Library and Whitworth Park

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Author Declaration

I, Nicholas McCord confirm that this report is based on my own work and that I am happy with both my own and my partner Michael Moon's contribution to the final submitted version.

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Executive Summary

This report was commissioned by Manchester City Council to address the challenge of evaluating cycling infrastructure, in particular infrastructure for students between Withington Library and Whitworth Park along the Wilmslow Road cycleway. The report found that the biggest barrier for non-cyclists in Manchester is because they perceive it to be dangerous. Following this, the report sought views of individuals who regularly use the cycleway to assess whether any changes can be made to make the route safer. The cycleway was deemed successful to an extent: cycling uptake on the cycleway more than doubled between March 2015 and October 2016 (Manchester City Council, 2017), and the majority of survey respondents (90%) recognised positive changes to the route. However, shortcomings were found in weak points of the infrastructure which regular cyclists believed were the most dangerous parts. Suggestions were made to alter these areas with the view to increasing awareness of pedestrians and cars towards cyclists. Doing this could potentially lower the amount of accidents on the route with a view to changing perceptions of non-cyclists who see it as dangerous and thus encourage new cyclists.

Acknowledgements

Thank you to the kind people of the group Fallowfield Buy/Sell tickets who answered our survey, both cyclists and non-cyclists. Their opinions were the vital to the research. Special thanks also go to the University of Manchester, for allowing us the opportunity to undertake this research, and Manchester City Council for their time and effort in reviewing the suggested changes.

1.1. Introduction

The aim of this report is to ascertain the deterrents for potential cyclists in the Fallowfield area, and provide suggestions of ways to improve safety at several areas along the Wilmslow Road Cycleway. The report was commissioned by the Manchester City Council with the aim to increase cyclist numbers along the 2.9km section of Wilmslow Road between Whitworth Park and the Withington Library. Previous research has shown safety shortcomings as a major deterrent for potential cyclists, supporting the idea that by improving safety measurements Manchester City Council can also increase the overall number of cyclists. Although results show that the existing cycleway has been a success, with levels rising from 1395 cyclists per day in March 2015 to 2895 per day in October 2016 (Manchester City Council, 2017), surveys of regular cycleway users show there are still areas that can be improved for the area to fulfil its cycling potential. Figure 1.1 shows the overall focus area of the research, and the individual areas that were identified for improvement by cyclists after conducting interview and survey research. Suggestions were designed to be logistically achievable and financially efficient, in order to match the budget of the Manchester City Council and maximise the potential for implementation.

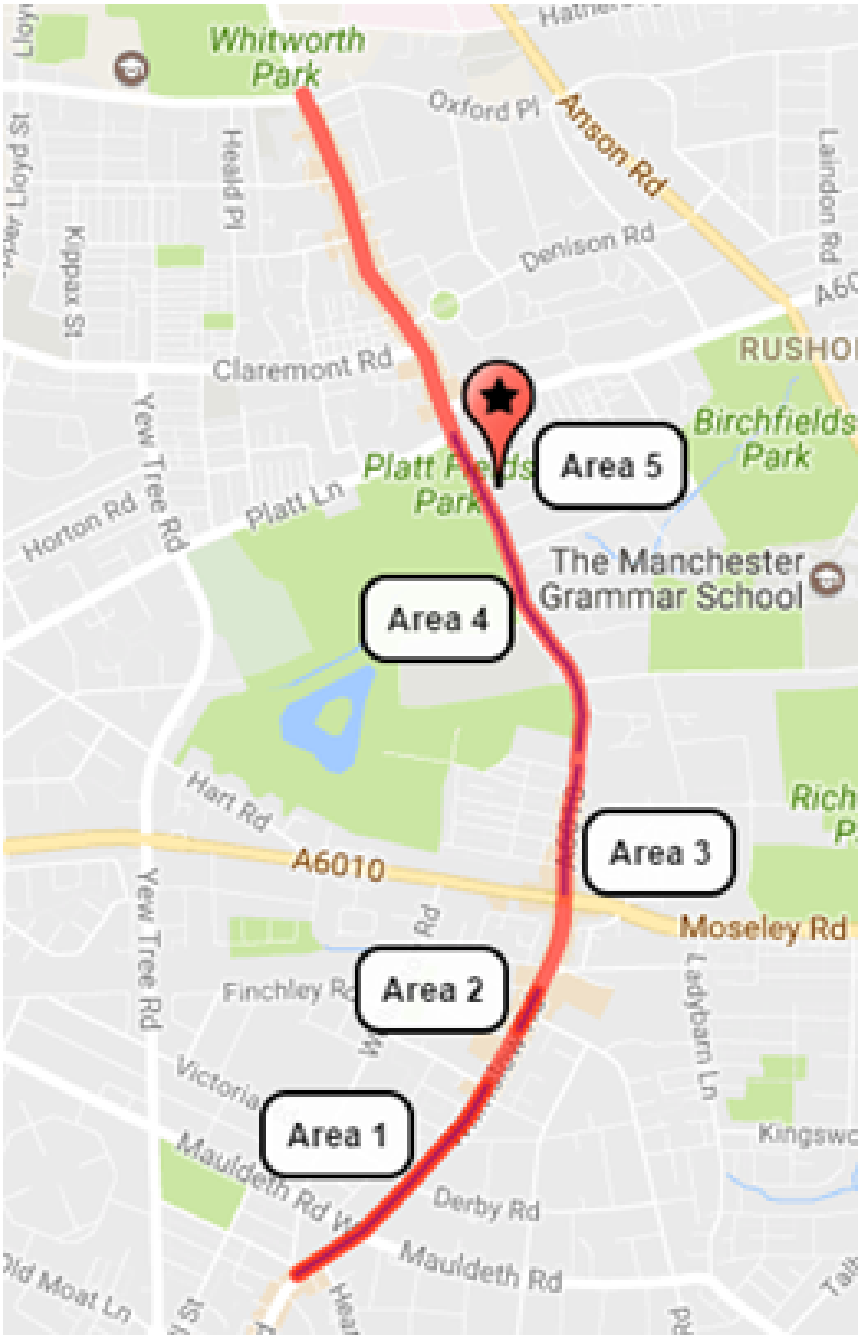

Figure 1.1 - *The focus area of the research, between Withington Library and Whitworth Park, and the specific areas where improvements were suggested.*

2.1. Context

A considerable amount of literature has focused upon the deterring factors for those who do not cycle. A lack of safety is commonly cited as a key reason, particularly in urban environments (McClintock and Cleary, 1996, Nankervis, 1999), caused by a lack of awareness amongst drivers and pedestrians. A BBC survey in 2014 found that 52% of Britons thought road safety was inadequate for them to cycle, citing dangerous drivers and pedestrians as a key concern. Research suggests that both cyclists and non-cyclists share the view that safety improvements are necessary for them to cycle more regularly (Hopkinson and Wardman, 1996). Davies *et al.* (2001) found that perceptions of cycling were equally as important as physical infrastructure, as those who did not cycle had an exaggerated opinion of the dangers of cycling. Furthermore, they argued that cycling is seen by non-cyclists as something 'other people do', and that policy makers must attempt to change the image of cycling to something that is accessible for everyone in order to induce significant changes. This suggests that by improving safety measures to the point that cycling is accessible and safe, for all ages and abilities, Manchester City Council can change the image of cycling amongst non-cyclists and encourage more people to cycle on a regular basis.

Much of the research surrounding cycling's deterring factors has also focussed on methods that can be used to overcome deterrents and encourage cycling. Studies have found a desire for cyclists to be segregated from traffic, for safety reasons in addition to pollution issues and the stress and noise associated with urban traffic (Aldred *et al.,* 2016, Mertens *et al.*, 2016). Pucher and Buehler (2008) supported this, and highlighted successful examples of separate bicycle lanes in Amsterdam and Copenhagen. The provision of separate cycle lanes has been called 'the cornerstone of Dutch and Danish policies to make cycling safe and attractive' (Pucher and Buehler), and has been cited as necessary to ensure that cycling is an attractive option for all cycling abilities, age groups and genders (Garrard *et al.*, 2008). Additionally, traffic calming strategies and clear signing have been proven to be highly effective, by limiting car speed and giving cyclists priority across the street, which increases safety and reduces stress amongst cyclists (Webster and Mackie, 1996). Intersections have been highlighted as a key focus area, with strategies such as cyclist crossing phases and special bike lanes having significant success, in particular amongst new cyclists for whom intersections may otherwise be intimidating and confusing (Pucher and Buehler, 2008). Banister *et al.* (2007) indicate the greater favorability towards car transport in British cities, which is non-conducive towards cycling. This suggests that policies should be implemented which decrease the appeal of car transport and prevent cars from deterring potential cyclists.

3.1. Methods

The focus area was chosen as it is the main commuting route for students attending the University of Manchester and Manchester Metropolitan University, and has been the subject of large amounts of investment in cycling infrastructure in the recent years. In this sense the area represents a key opportunity for the council to implement schemes that will encourage cycling on a large scale. Furthermore, success and failure encountered by schemes within this area can be translated to other areas of the city to maximise cycling in Manchester. Taking this into account, this research centred around the following two research questions :

Research Question 1: What are the barriers currently deterring people from using the Wilmslow Road Cycleway?

Research Question 2: In what ways can safety along the Wilmslow Road Cycleway be improved for cyclists?

The decision was made to adopt a mixed methods approach, in which two primary research methods, consisting of online surveys and a photo diary, were used to collect data. This was then supplemented by secondary data in the form of photos taken by others. The use of a mixed methods approach was chosen due to its ability to provide richer and more reliable results than using singular methods, as it allows for the triangulation of results of alternate methods to provide a more valid conclusion (Creswell and Clark, 2007, Casey and Murphy, 2009).

3.1.1. Online Surveys

Two different online surveys to gauge the opinion of both cyclists and non-cyclists were conducted on an anonymous online surveying tool. The surveys were posted on the Facebook group 'Fallowfield Buy/Sell Tickets.' This group provided access to over 15,000 members who populate South Manchester, and ensured the survey was exposed to a large audience. All participants of the survey were made aware that their opinions and comments could be used in research. Respondents were able to indicate multiple answers in the form of an 'other comments' box, which McGuirk and O'Neill (2009) see as vital to surveys, as they allow for responses unanticipated by the researcher. A limitation of this research was a potential non-sampling error in that the survey was only accessible for internet users and thus did not fully represent the total sample population.

3.1.2. Photo Diary

Hall (2009) states the benefits of using visual methods to support research statistics, as they provide clarity and context. Following this, a photo diary was used to complement the study, where photos were used as evidence of numerous shortcomings along the Wilmslow Road Cycleway. The photos were taken on an iPhone 6 and were not subject to editing. All photos of cycle infrastructure were accurate as of 05/05/2017. From an ethical perspective, photos were only used where people were unidentifiable and thus their permission wasn't needed to be included in the study. All road maps in the study were gathered from Google Maps (2017).

4.1. Findings

4.1.1. What are the barriers currently deterring people from using the Wilmslow Road Cycleway?

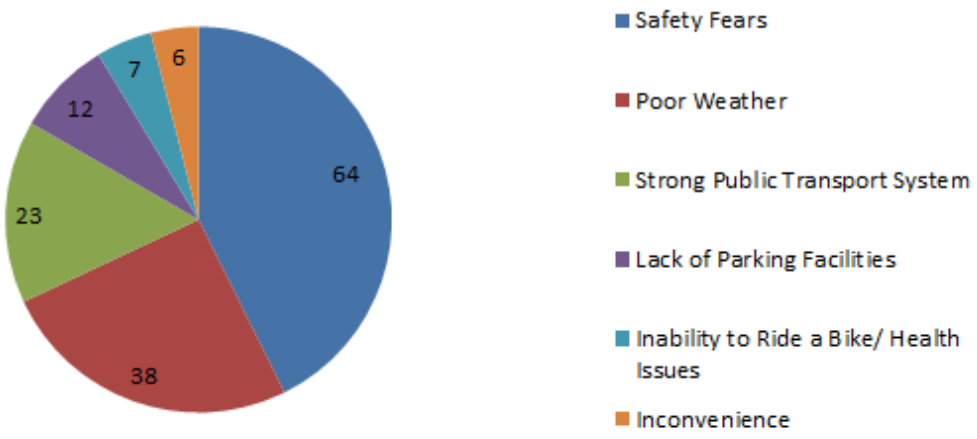

Figure 4.1 - *A Chart Showing the Barriers Preventing People From Cycling in Manchester.*

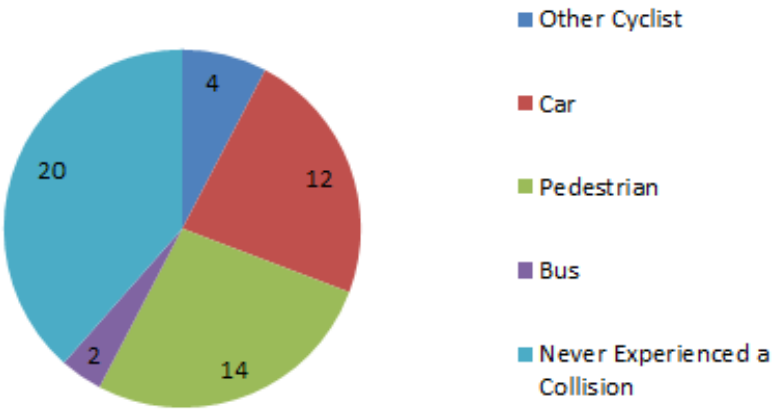

Figure 4.2 - *A Chart Showing Cyclists' Experiences of Collisions on the Wilmslow Road Cycleway.* .

Figure 4.1 is a collection of the 150 different listed responses from non-cyclists in Manchester concerning reasons why they chose not to cycle. With 64 responses, the most common response is a lack of safety. This corresponds with the responses to the online survey of cyclists (Figure 4.2); in the last 12 months, 20 of the 40 respondents had been involved in at least one collision with either a car, bus, pedestrian or another cyclist.

Of the 40 respondents to the cyclists' survey, 37 had witnessed changes to cycling facilities along the route in the last three years. All said that these were positive improvements, however a common response was that there are still improvements to be made, especially concerning safety. A textual analysis of the comments found that 52.6% of the concerns were focused on the stretch of Wilmslow road between the Moss Lane east and Platt Lane, the 'Curry Mile.' Each of these responses mentioned pedestrians being unaware of the cycle path and using it as a pavement.

Figure 4.3 - *GoPro screenshots of pedestrians obstructing cyclists on the Curry Mile*

Figure 4.3 shows images taken from a GoPro video privately sent in by a respondent. The video shows their path being blocked by pedestrians who are reluctant to move following the cyclist ringing their bell repeatedly. One respondent referred to pedestrians being "utterly ignorant" to the cycle lanes and cyclists, while another declared that "a lot of the time it is safer to not use the cycle path at all - especially on curry mile where pedestrians have no clue that they shouldn't be on the cycle path and they use it as a pavement." Between Owens Park Campus and the Curry Mile, a respondent noted "the cycle path needs to be even more separate from the pavement so as it doesn't have to cross it all the time. People walk in the wrong lane." This corresponded with another respondent who stated

"the cycle path crosses the pavement too many times when going past Platt Fields Park in both directions, but particularly when travelling towards university." On the section between the University of Manchester northbound from Fallowfield the path for pedestrians and the cycle path crosses a total of five times and three times southbound. Of the 40 respondents to the online survey, 40% said that they missed out parts of the cycle paths and instead used the roads or the pavements (as shown in figure 4.4). Having cyclists opting to use the roads and pavements instead of the designated spaces shows the current inefficiencies in the system and reveals the need for a better defined, segregated bicycle lane as suggested by Pucher and Buehler (2008).

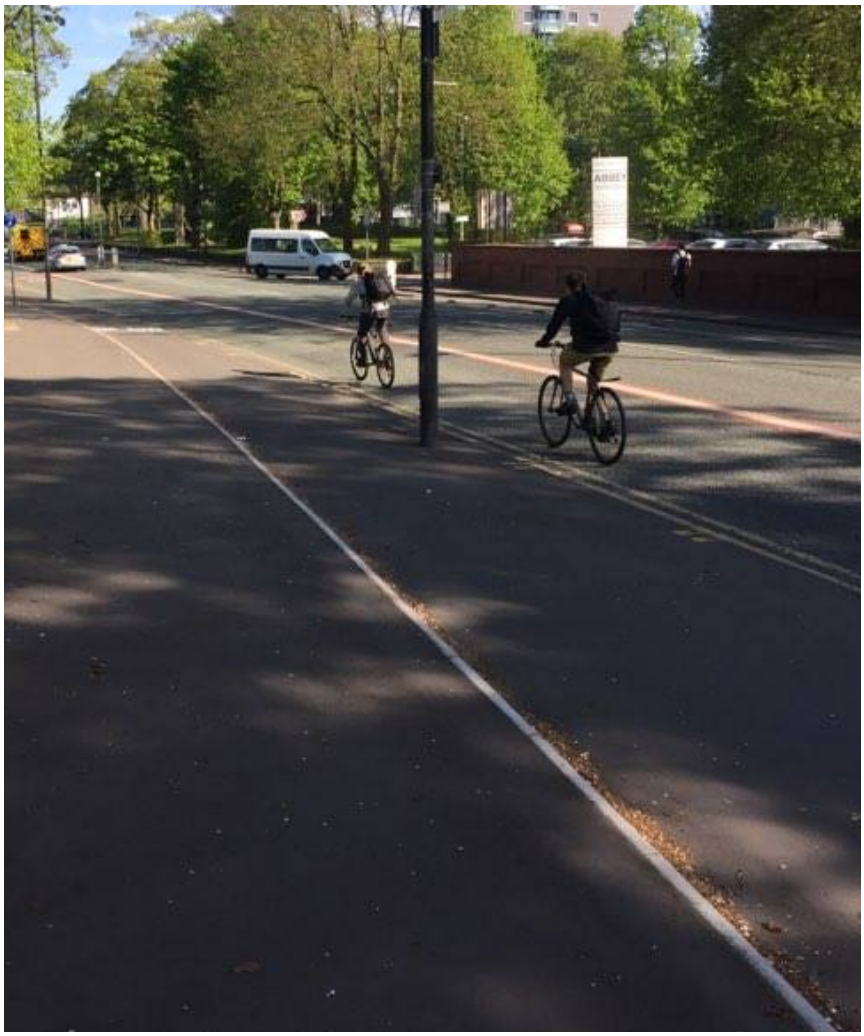

Figure 4.4 - *Cyclists opting to use the bus lanes as opposed to the bike lanes.*

Equally, a figure of 32.5% of respondents having experienced an accident involving a car is far too high. One respondent declared "cars and pedestrians in the curry mile do not seem to care about cyclists… vans and cars always block the cycle lane putting my safety at threat forcing me onto the dangerous roads. An example of this can be seen in figure 4.5.

Figure 4.5 - *Van blocking cycle path on the Curry Mile (M.E.N, 2016).*

4.1.2. In what ways can safety along the Wilmslow Road Cycleway be improved for cyclists?

The following section will outline several areas on the cycleway that were identified as problematic by regular cyclists, and suggest potential methods of improvement. By taking the suggestions of regular cyclists into account we can gain a subjective view of the cycle route from a cyclist's perspective, thus increasing the significance of results and ensuring that any infrastructural changes will significantly improve the overall cycling experience.

Area 1: Route between Withington Library and the Granville Road Intersection.

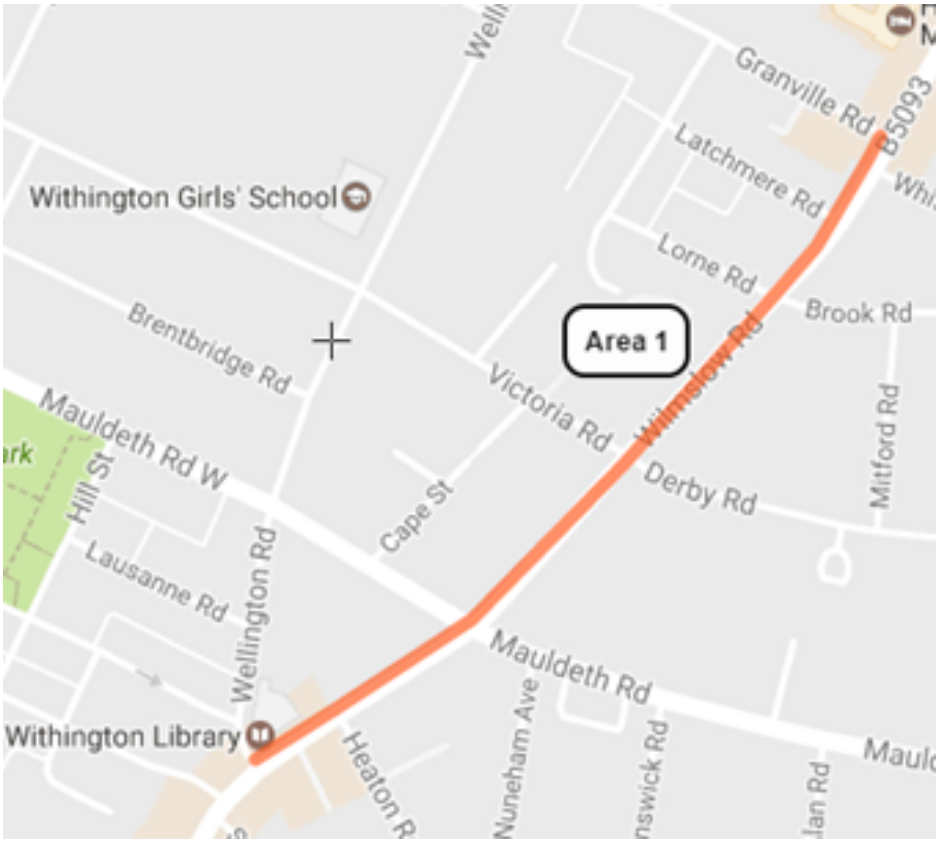

Figure 4.6- *Map of Area 1.*

Figure 4.7- *Inadequate signage at Granville Road Intersection.*

Problem: Cyclists detailed how cars pulling out of the side streets fail to recognise cycle paths. A number of respondents recalled being forced to swerve to avoid cars pulling out on them, which puts their own safety in jeopardy. As it stands there is inadequate signage providing warnings for cars turning onto Wilmslow Road from the side streets, which can be seen in figure 4.7, showing a sign notifying cars of a bus lane but with no mention of a cycle lane.

Solutions: Increased signage for cars to increase awareness of the cycle lane in between the junction and the road they are turning out onto. Additionally, previous research (Pucher and Buehler, 2008) suggests a need for 'cycle crossing phases,' where traffic lights or stop zones are implemented to ensure cars and cyclists pass at alternative intervals.

Area 2: Route between Fallowfield McDonalds and the Koh Tao Bus Stop.

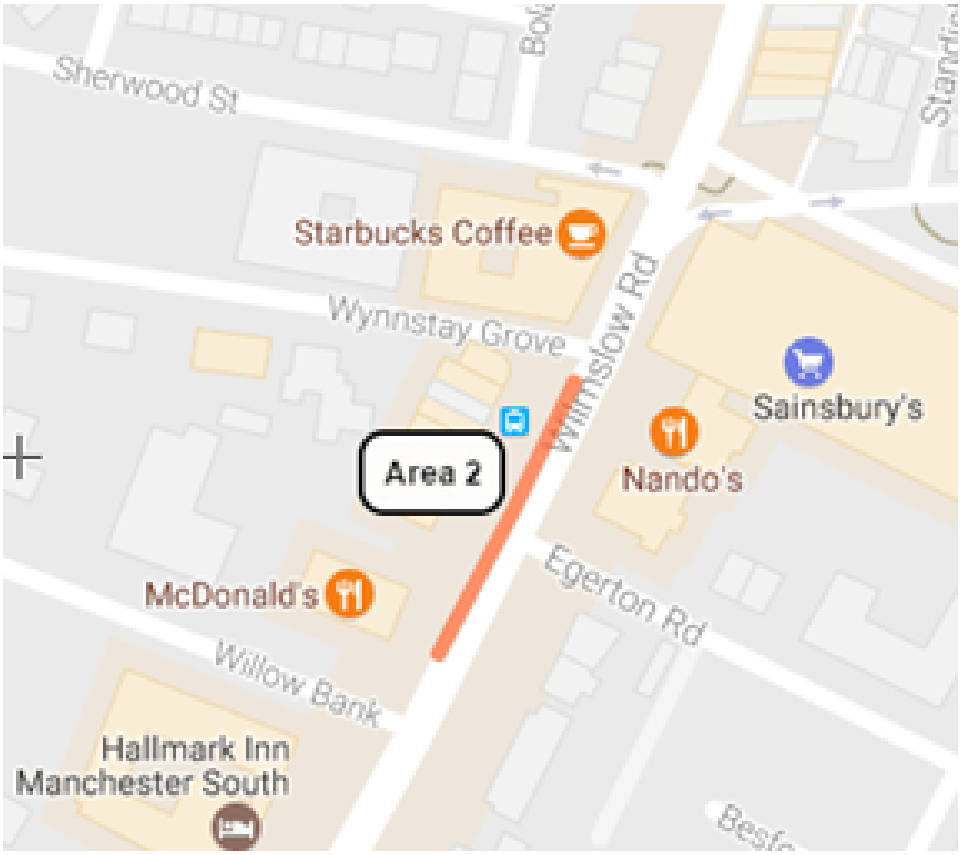

Figure 4.8- *Map of Area 2.*

Figure 4.9- *An area of potential danger for cyclists at the Koh Tao Bus Stop.*

Problem: There is currently no alternative option for cyclists other than to stop behind parked buses or overtake to the right of them. This has been cited as hazardous due to the risk of cars hitting cyclists, as well as unaware pedestrians getting off the buses.

Solutions: The creation of a slip lane for cyclists which undertakes the bus stop and allows cyclists to travel on a safe, segregated route with minimal risk of collision. Clear and consistent signage should also be implemented to ensure pedestrians departing buses and crossing the street are aware of oncoming cyclists (Mertens et al, 2016).

Area 3: Route between Fallowfield Crossroads and Langley Road.

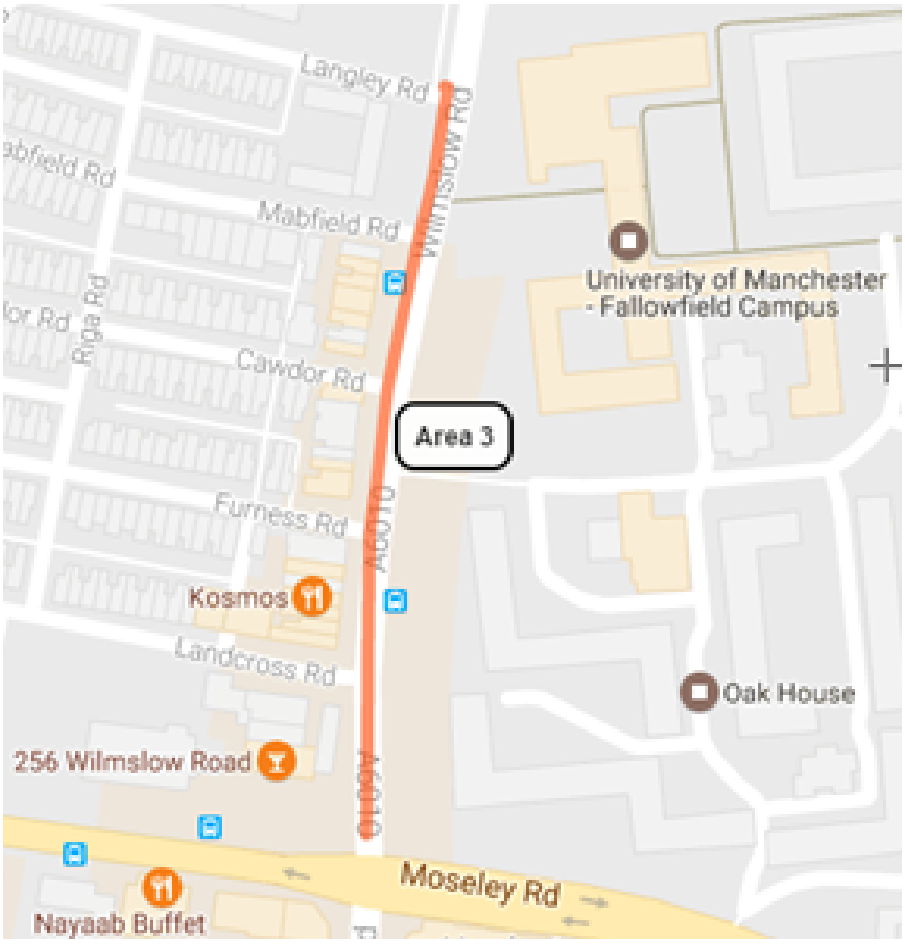

Figure 4.10- *Map of Area 3.*

Figure 4.11- *Parked cars obstructing the cycle path opposite Owen's Park.*

Problem: Cyclists argued that cycle path is overly narrow, and there is a major issue of vehicles parking on the cycle lanes and obstructing cyclists, forcing many on to the road. One respondent stated that they had been knocked off their bicycle by a car door opening onto the cycle lane.

Solutions: The installation of bollards in order to prevent cars from parking on the cycle lanes (Aldred et al, 2016). The whole section requires repainting and clear signage to reduce confusion and facilitate usage, and clearly define the cycle lane as off-limits for vehicles. Those continuing to park vehicles in the cycle lane should be fined to deter them from continuing.

Area 4: Route between Owens Park Bus Stop and Platt Lane Intersection.

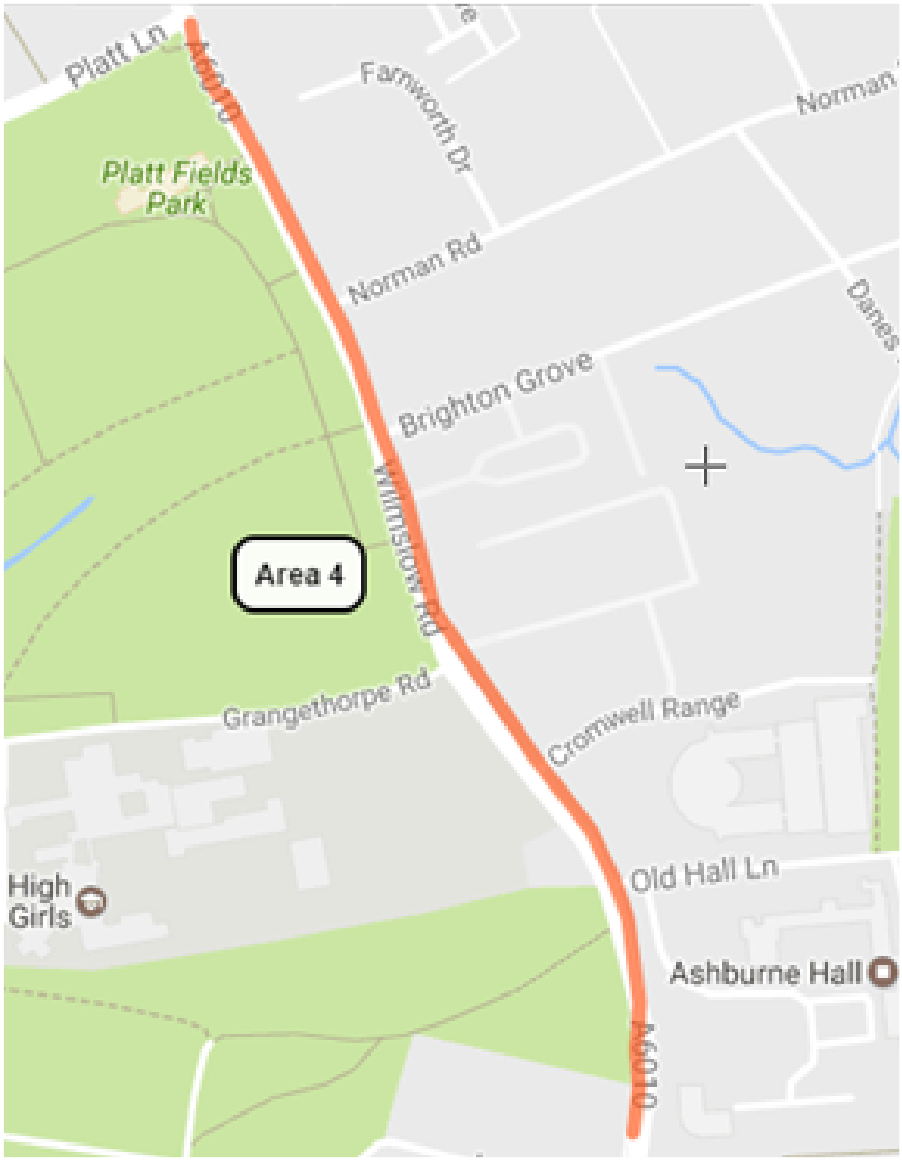

Figure 4.12- *Map of Area 4.*

Figure 4.13- *Cycle path and pedestrian pavement crossover area- a lack of signage means pedestrians are often unaware of oncoming cyclists.*

Problem: Multiple crossover areas where cycle paths and pedestrian pavements overlap, where cyclists in the survey believed that often pedestrians were unaware. As a result some cyclists are forced to cycle in bus lanes.

Solutions: The consistent implementation of clear and noticeable signage (Webster and Mackie, 1996) to make pedestrians aware of the risk of oncoming cyclists. Alternatively, yet more expensively, the cycle path could be redesigned as segregated from both pavement and road, in order to minimise crossover areas and reduce danger.

Area 5: Southbound Bus Stop Between Norman Road and Dickenson Road.

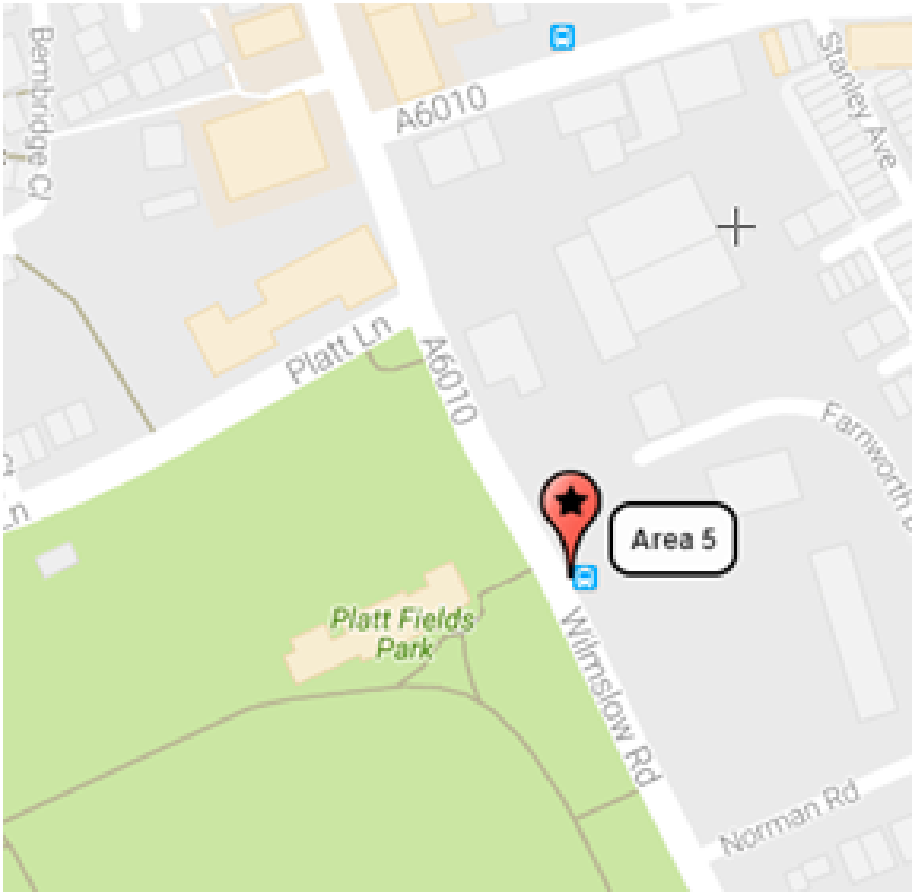

Figure 4.14- *Map of Area 5.*

Figure 4.15- *An area of potential danger for cyclists, at a convergence of a cycle lane and bus lane.*

Problem: A number of cyclists reported this area as problematic. A respondent answered "When the cycle path rejoins the road it is squeezed in next to big buses and many times I have to smack the side of the bus because they rarely look for cyclists."

Solutions: The repainting of the cycle lane and provision of clear signage for bus drivers alerting them of cyclists on their left. 'Cycle crossing phases' (Pucher and Buehler, 2008) could also be implemented to offer cyclists and buses passage at alternative intervals to increase safety and reduce the chance of collision.

5.1. Conclusions

Evidence from this report shows that although it has been relatively successful, there is still potential for further improvements to the Wilmslow Road Cycleway. A lack of awareness by both pedestrians and vehicles is a major issue amongst several sites, which suggests that better signage would increase safety for both cyclists and non-cyclists. These improvements could conceivably be made with minimal costs to the Manchester City Council, making them a highly attractive and achievable option. This has a high potential to lower accident rates for both cyclists and non-cyclists, which in turn could change perceptions of cycling as dangerous. A strong limitation of this report was its brevity: future research should aim to better define potential improvements and gauge the views of a wider range of cyclists.

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