

Bridgewater House, Manchester

Transport Statement

220705/SK22236/TS01(-01)

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Project	Document	Rev	Description	Authorised by	Signed	Date
SK22236	TS	00	Draft	L Speers	LGS	31/05/2022
SK22236	TS	01	Submission	L Speers	LGS	05/07/2022

1 Introduction

- 1.1 SK has been appointed to prepare a Transport Statement (TS) that examines the impact of a planning application for 53 apartments on the Bridgewater House site in Manchester city centre. The proposed layout is attached in Appendix A.
- 1.2 The TS has been prepared in line with the following guidance:
- Ministry of Housing, Communities & Local Government (2021), National Planning Policy Framework
 - Ministry of Housing, Communities & Local Government (2016), Planning Practice Guidance
 - Chartered Institution of Highways & Transportation (2019), Better planning, better transport, better places
 - Transport for Greater Manchester (2013), Transport for Sustainable Communities
 - Transport for Greater Manchester (2017), Greater Manchester Transport Strategy 2040
 - MCC (2012) Manchester's Local Development Framework: Core Strategy Development Plan
 - Manchester City Council (2016), Residential Design Guide

2 Existing Situation

Site Location

- 2.1 Figure 2.1 shows that the site is located on the southern side of the city on a key gateway route into the city centre. The site sits in a strategic regeneration area of the city (Great Jackson Street Development Framework) and is located between Renaker's Crown Street development site and De Trafford's Great Jackson Street development site.

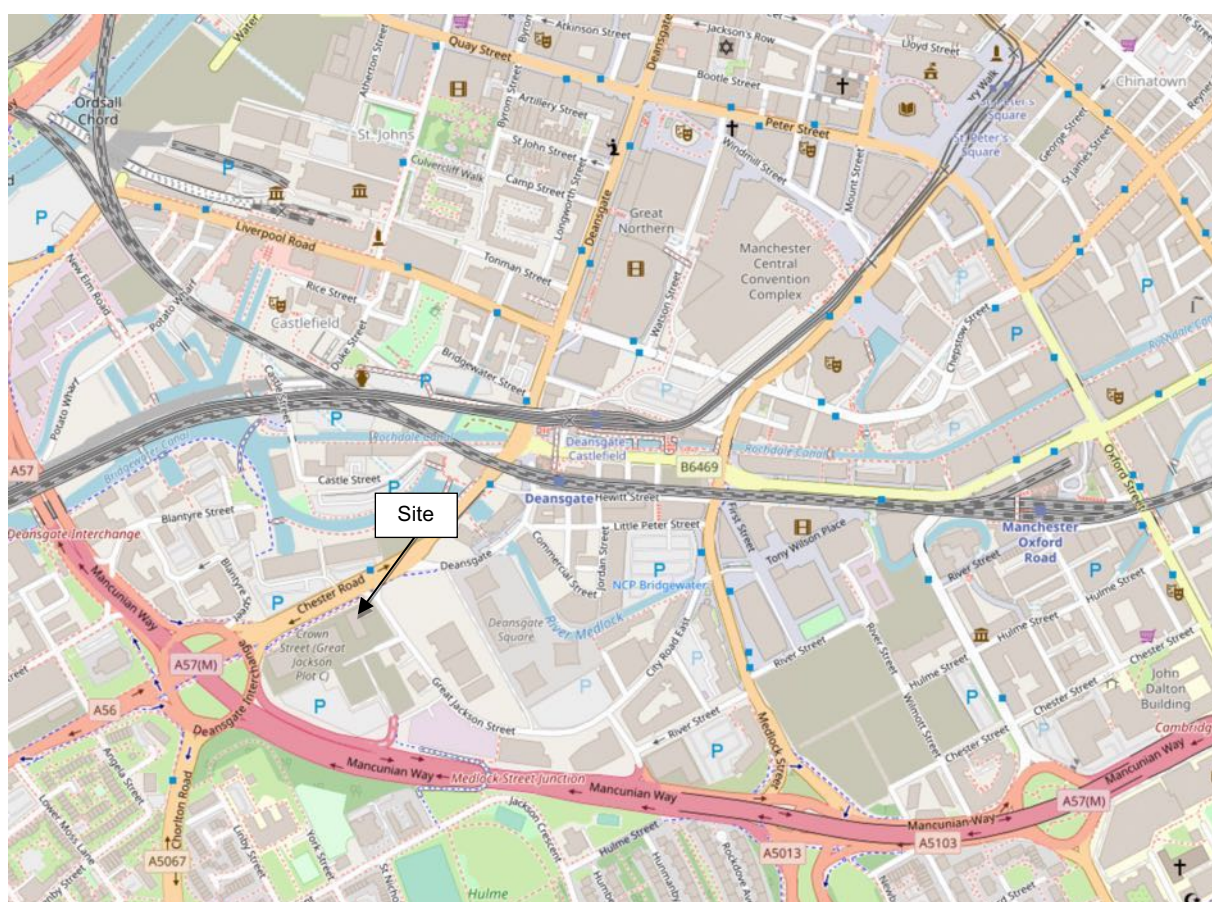


Figure 2.1: Site Location
[source: ISO4]

Existing Site Use

- 2.2 The site is occupied by Bridgewater House and a parking area. The parking area has been in use as a commuter car park with 26 spaces.
- 2.3 Vehicle access to the site is provided from Great Jackson Street and Silvercroft Street.

Existing Site Traffic Flows

- 2.4 The traffic associated with the use of the parking area by commuters has been forecast using a commuter car park traffic survey from the Crown Street (Phase 1) Transport Assessment)

	Vehicle Trip Rate (per space)			Vehicle Trips		
	In	Out	Total	In	Out	Total
AM Peak Hour	0.423	0.025	0.448	11	1	12
PM Peak Hour	0.045	0.360	0.405	1	9	11

Table 2.1: Existing Site Traffic Flows

Local Highway Network

- 2.5 Vehicular access to the site is provided from Silvercroft Street and Great Jackson Street.
- 2.6 Silvercroft Street is a 5.5m wide road with 3m footway on the northern side of the road (site frontage) and a 20mph speed limit. Silvercroft Street connects to both Great Jackson Street and Crown Street. Access (entry only) can also be gained to Crown Street and Silvercroft Street via the off slip from Mancunian Way.
- 2.7 Great Jackson Street is a two-way road with 10m carriageway and 3m+ footways on both sides, on-street parking is present on both sides along much of its length. The road is subject to a 20mph speed limit. From Chester Road access is provided to Great Jackson Street via a left in / left out arrangement.
- 2.8 Crown Street to the west of the proposal site has been reconfigured as part of the Crown Street development fronting Chester Road, providing a wide footway/cycleway along the frontage of the proposal site. Development is continuing on the Crown Street area to the south-west of the proposal site.

Traffic Regulation Orders

- 2.9 The Site sits within Zone 4 of the City Centre Pay & Display parking system. In Zone 4, parking charges apply and there is a maximum stay of ten hours (Monday to Sunday, 8am to 8pm).
- 2.10 There are currently five parking spaces located outside the site on western side of Great Jackson Street and two parking spaces located opposite. Continuing south, Pay & Display Bays are present on both sides of the street broken up by sections in the vicinity of junctions. There currently no bays provided on the western side over the length immediately to the south of the proposal site, though it is understood that bays are proposed in this location in conjunction with further development of the adjacent site.
- 2.11 The proposal for the Crown Street primary school includes the provision of a new drop-off bay on Great Jackson Street. This is created by modifying the existing TRO to remove double yellow lines.

Road Safety Data

- 2.12 Figure 2.2 shows the road safety record for streets surrounding the site.

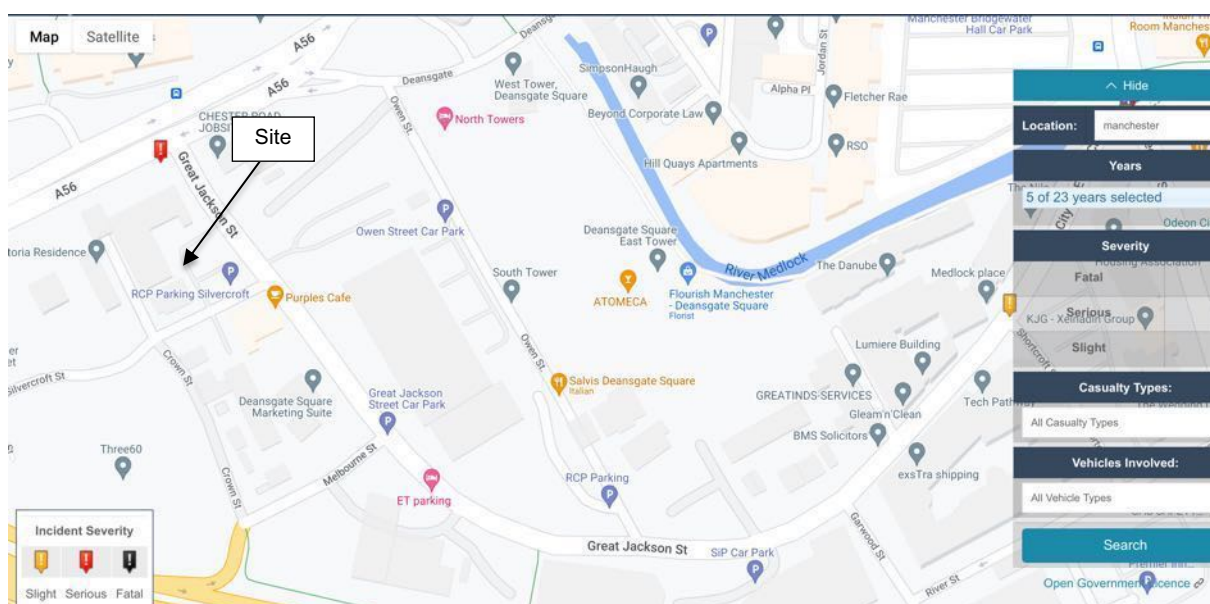


Figure 2.2: Road Safety
[source: Crashmap]

- 2.13 Figure 2.2 shows that there have been no accidents at the site access junctions during the five-year period assessed.
- 2.14 There has been a single accident at the A56 / Great Jackson Street. The accident was classified as serious and involved a cyclist.

Off-Street Public Car Parks

- 2.15 Table 2.2 shows the public car parks within a 10-minute walk of the site.

Car Park	Operator	Total Spaces	EV Spaces	Walk Time (mins)
Bridgewater Hall	MCC	280	-	5
Great Northern 1	NCP	527	Yes	6
Great Northern 2	NCP	721	Yes	6
First Street	Q Park	700	Yes	9

Table 2.2: Public Car Parks
[source: Google]

- 2.16 Table 2.2 shows there are over 2,000 off-street parking spaces in public car parks within a 10-minute walk of the site, with EV charging facilities provided at most of them.
- 2.17 The Crown Street Phase 2 development, adjacent to the site, has consent for the construction of a Multistorey Car Park that will provide both private and public car parking. The car park will have 389 public parking spaces, including EV charging and disabled spaces.

3 Proposed Development

- 3.1 The proposed layout is attached in Appendix A.
- 3.2 The proposal seeks to retain the existing building on site and convert this to apartments. A new block will also be constructed. The development will deliver a total of 53 apartments.
- 3.3 Direct pedestrian entrances will be provided to properties fronting Great Jackson Street and Silvercroft Street. Additional pedestrian entrances will be available to the retained building from Crown Street and Great Jackson Street, and a central courtyard area will also open onto both Crown Street and Great Jackson Street, providing access to this central space and properties

fronting the courtyard. The applicant will fund the reinstatement of redundant vehicle access points and resurfacing of the footways bounding the site.

- 3.4 Cycle parking will be provided in covered and secure locations in the courtyard in line with MCC standards (minimum of 0.5 per apartment). Visitor parking will also be provided on-site in line with advice on short-stay guidance in DfT's LTN 2/20 this will be uncovered Sheffield stands. 100% residential parking is provided in individual apartments and 13 sheffield bike stands for use by visitors in the courtyard.
- 3.5 The proposal is car-free and the appropriateness of this is considered further in Section 5.
- 3.6 The applicant will fund the changes required to existing TRO to provide one disabled parking bays outside the site on Great Jackson Street. The proposal shown in Appendix B will not reduce the number of standard Pay & Display parking bays currently provided.
- 3.7 Servicing for the site has been designed to allow a co-ordinated approach with the consented development site next door (Renaker's Crown Street Phase 1) and will be focused on the Crown Street frontage. Use of this street for servicing and refuse collection has been agreed with Renaker. The refuse store is located to allow bins to be accessed from Crown Street on collection day. This is the same arrangement as agreed with MCC for the Crown Street Phase 1 development. The refuse vehicle swept path submitted with the Crown Street Phase 1 development is attached as Appendix C.
- 3.8 An Interim Travel Plan has been prepared the site that sets out the measures that will be adopted on occupation to support active and sustainable travel. The Interim Travel Plan is attached as Appendix D.
- 3.9 The site is served by seven existing car club vehicles that will meet the occasional / casual car use needs of residents. Information on the car club will be provided in the Travel Plan.

4 Accessibility Assessment

Pedestrian Routes

- 4.1 The site is well connected to key destinations by a comprehensive network of pedestrian routes, typical of its city centre location. The footways bounding the site are in excess of 2m in width. Connections to the city centre can be gained either by using local streets and routes that have been created through the Regeneration area or the footways on Chester Road.
- 4.2 Signalised crossings are provided at Bridgewater Viaduct / Whitworth Street West, Whitworth Street West / Medlock Street, and Deansgate Interchange.
- 4.3 The proposal is well placed for access on foot with opportunities for pedestrian movements available using existing infrastructure. The appropriateness of the existing pedestrian infrastructure to serve residential development has been previously found acceptable by MCC when considering the much larger consented developments next to the site.
- 4.4 The applicant will fund the reinstatement of redundant vehicle access points and resurfacing of the footways bounding the site.

Cycle Routes

- 4.5 Figure 4.1 shows the site relates well to existing formal and informal cycle routes on the Greater Manchester Cycle Network. Marked cycle routes are also present along the frontage on Chester Road and a on Great Jackson Street. These routes provide connections to Route 6 of National Cycle Network on Whitworth Street West.
- 4.6 The site sits adjacent to the recently completed Cyclops facility at Deansgate Interchange. This provides a connection to the Bee Network 'Chorlton Busy Beeways' improvement shown in green on Figure 4.2. Bee Network improvements are also proposed to the north of the site as part of the 'City Centre Triangle', shown in brown on Figure 4.2.
- 4.7 The proposal is well placed for access on bike with opportunities for movements available using existing infrastructure. The appropriateness of the existing cycle infrastructure to serve residential

development has been previously found acceptable by MCC when considering the much larger consented developments next to the site.

- 4.8 Cycle parking is provided across the city centre adjacent to local amenities. The proposal includes generous levels of cycle parking with 100% provision for residents and 13 sheffield stands in the courtyard for visitors.

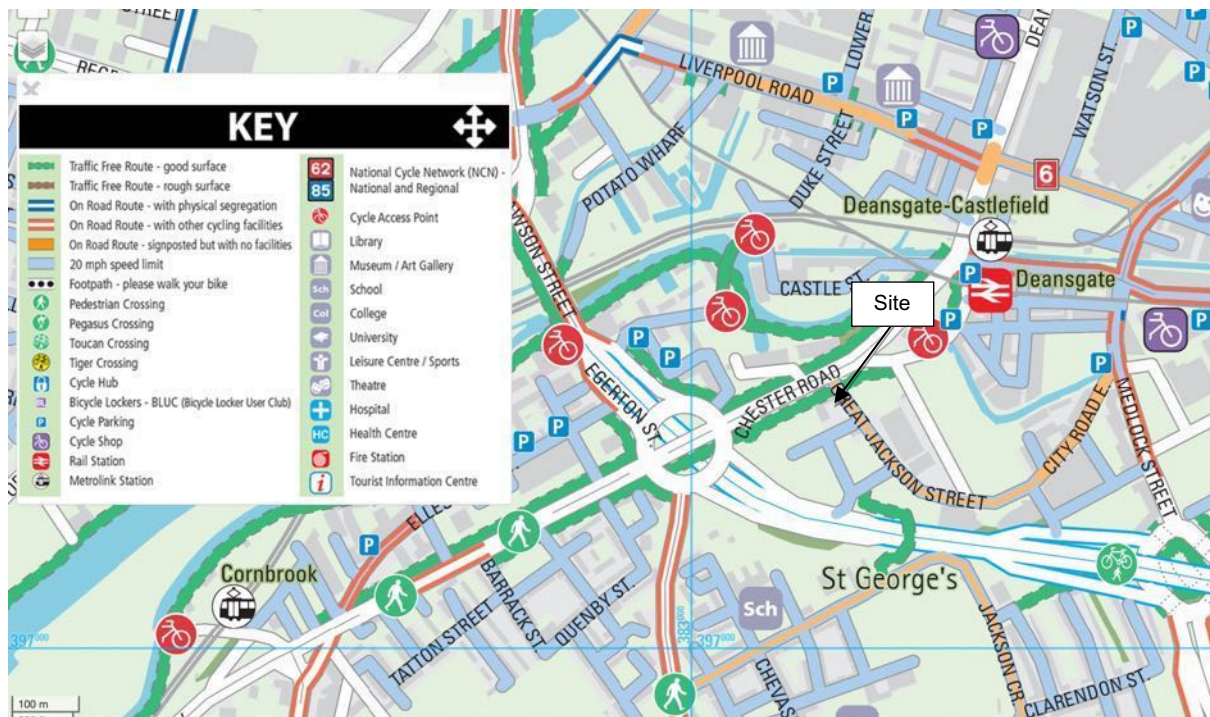


Figure 4.1: Cycle Network
[source: TfGM]

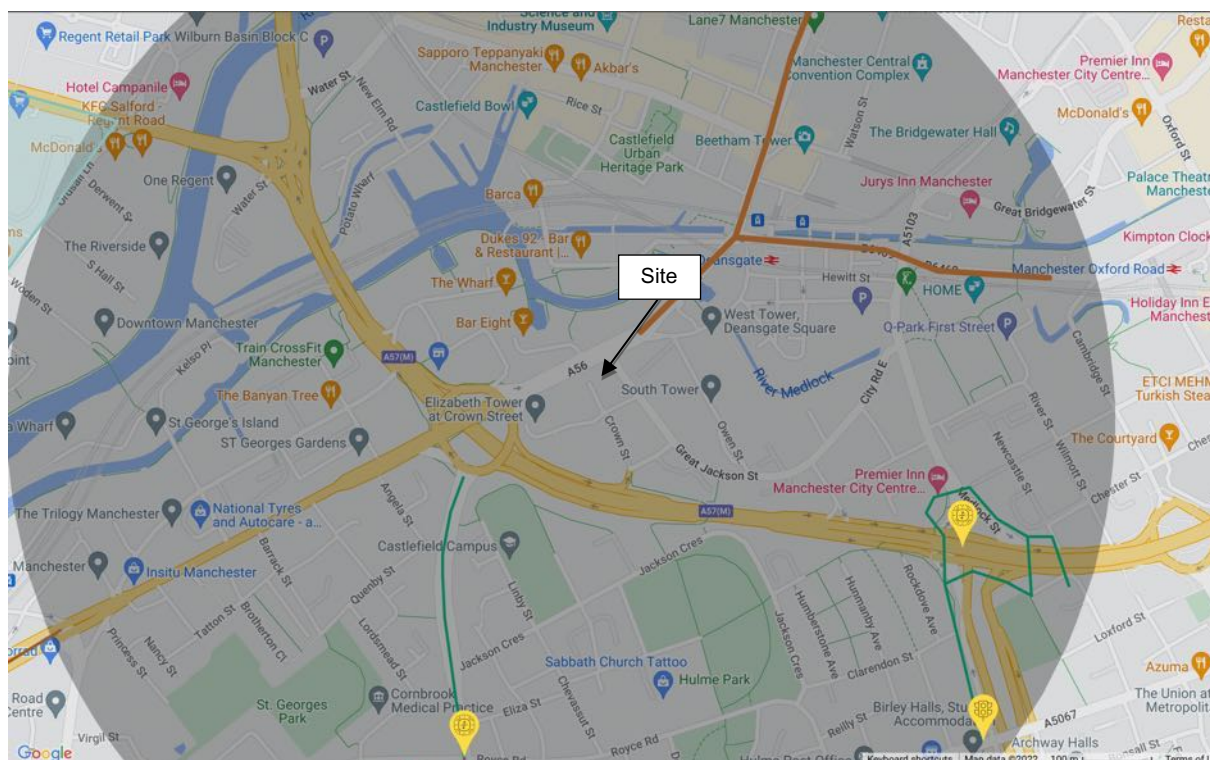


Figure 4.2: Bee Network Schemes
[source: TfGM]

Public Transport Routes

- 4.9 The nearest bus stops to the site are located on Whitworth Street West, Bridgewater Viaduct and Chester Road. These bus stops are all within a 5-minute walk of the site.
- 4.10 TfGM's interactive bus tool shows that the nearest bus stops are served by around 1,200 buses per day (Monday to Friday). These services provide comprehensive coverage of the city centre and regional destinations. The services also provide good coverage of early morning, evening, and weekend periods.
- 4.11 The site is located a 4-minute walk from Deansgate-Castlefield tram and train station. Access can be gained to the station using the footway fronting the Proposed Development on Chester Road and crossing at the existing signalised facility at the junction of Bridgewater Viaduct / Whitworth Street West or by using the low trafficked routes through the Great Jackson Street Development Regeneration area.
- 4.12 The site benefits from a very good level of accessibility by public transport.

Car Club Vehicles

- 4.13 Enterprise Car Club offers a cost-effective, hassle-free, and greener alternative to car ownership in accessible areas. The service offers pay by hour car hire, which residents a more convenient and cost-effective alternative to car ownership for situations if a vehicle is required for occasional journeys. The Car Club also maintains larger vehicles and vans at locations across the city.
- 4.14 The nearest Car Club vehicles to the site are located on Whitworth Street West, Castle Street, Bridgewater Street, Duke Street, First Street. There are a total of seven cars are available in these locations.
- 4.15 It is understood that further spaces are to be delivered as part of the already consented schemes within the Great Jackson Street Regeneration area.

Accessibility Assessment

- 4.16 The audit above sets out the pedestrian, cycle and public transport infrastructure serving the site. The suitability of the sustainable transport infrastructure serving the location of the site has recently been found acceptable by MCC when consenting the must larger residential developments located nearby. The accessibility assessment set out below confirms that the site is very well located in terms of access to existing sustainable transport infrastructure and distances to key trip attractors.
- 4.17 Two-thirds of all journeys in the UK are under-five miles and short distance trips offer the greatest opportunity for changes in travel behaviour. DfT best practice guidance states that walking has the potential to substitute for car trips under 2km. CIHT provides further advice on suitable walking distances these are set out in Table 4.1.

Destination Type	Walk Distance (m)	Walk Time (mins)*
Commuting / Education	2000	25
Local Centre / Local Retail	800	10
Other	1200	15

Table 4.1: CIHT Walk Distances
[source: CIHT]

- 4.18 Figure 4.3 shows that the site is within appropriate walk times of the destinations set out in Table 4.1. Figure 4.3 shows that core areas of the city centre are within 800m of the site, offering opportunities for residents to access numerous employment, retail, recreation, health, and leisure destinations. All of the city centre and central areas of Salford (including all three universities) is within 2km of the site.
- 4.19 The assessment shows that, as would be expected, the site relates well to local amenities that can be accessed on foot.

4.20 A Greater Manchester Accessibility Level (GMAL) calculation has been undertaken for the Site. A GMAL is calculated using the interactive tool managed and maintained by TfGM. This tool measures accessibility by public transport of a point of interest and provides a score between 1 and 8, where 1 is a low level of accessibility and 8 is the highest level of accessibility.

4.21 The site has a GMAL of 8, which is an exceptional level of accessibility.

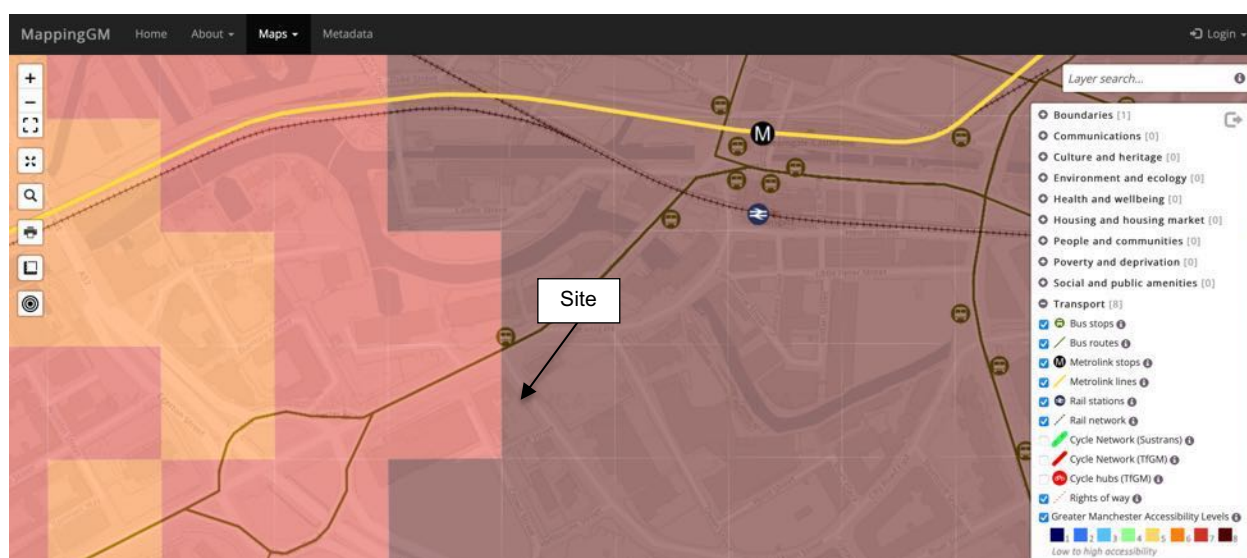


Figure 4.4: GMAL
[source: TfGM]

Summary & Policy Compliance

- 4.22 Evidence and research show that people can and will live active, sustainable, low-carbon lifestyles in areas that provide a mix of uses to reduce the need to travel and that are located with ready access by sustainable modes. The site is shown to be well located in relation to the city centre offering the opportunities to influence resident travel patterns as soon as they move in.
- 4.23 Existing pedestrian and cycle infrastructure provides connections to city centre destinations and has been found suitable by MCC when considering nearby (larger) residential schemes to meet resident needs. The proposal includes the reinstatement of redundant access points, bounding footway resurfacing, and generous levels of cycle parking for residents and visitors.
- 4.24 The site also relates well to public transport nodes, with frequent bus, tram, and train services available in a five-minute walk. The public transport services provide good coverage of city centre and regional destinations throughout the week. The site also relates well to existing car club vehicles and new vehicles that are to be delivered by nearby developments, offering opportunities for casual and occasional car use. The use of the public transport and car club network will be supported and promoted in the site Travel Plan.
- 4.25 Local and national policy supports developments that are focused in locations which are or can be made sustainable, by limiting the need to travel, offering a genuine choice of transport modes and where appropriate opportunities to promote sustainable transport are available. The proposal is in line with this policy.
- 4.26 The proposal includes infrastructure and strategy measures to support sustainable living practices. The interventions proposed directly and reasonably relate to the scale and nature of development. No further interventions are considered to be required to make the development acceptable in planning terms.

5 Traffic Impact

Multimodal Trip Generation

- 5.1 TRICS has been used to allow an understanding of the future trip generating potential of the site. The following parameters have been set:

- Land Use: 03 / Residential / C / Flats Privately Owned selected
- Regions: Greater London, Northern Ireland & Republic of Ireland removed
- Location: Town Centre / Edge of Town Centre selected

- 5.2 The trip output is based on an average development size of 62 apartments with 65 site parking spaces (105%). No adjustment has been made to the data to acknowledge the car-free nature of proposed development.
- 5.3 The TRICS output is attached as Appendix E, with a summary provided in Table 5.1.

	Person Trip Rates (per dwelling)			Total Trips – Apartments		
	In	Out	Total	In	Out	Total
AM Peak Hour	0.109	0.487	0.596	6	26	32
PM Peak Hour	0.442	0.227	0.669	23	12	35

Table 5.1: Person Trip Rates & Total Site Trips
[source: TRICS]

- 5.4 The mode share for the site has been taken from the Transport Assessment prepared for Crown Street Phase 1, which is based on Census data. The mode share is replicated in Table 5.2.

Modes	Share
Public Transport	27%
Car Driver	19%
Car Passenger	1%
Bike	3%
Foot	49%
Other	1%

Table 4.2: Census Data
[source: Crown Street Phase 1 Transport Assessment]

- 5.5 The mode share data has been applied to the total trips to derive the multimodal trip generation.

	Car Trips			Public Transport Trips		
	In	Out	Total	In	Out	Total
AM Peak Hour	1	5	6	2	7	9
PM Peak Hour	4	2	7	6	3	10
	Pedestrian Trips			Cycle Trips		
	In	Out	Total	In	Out	Total
AM Peak Hour	3	13	15	0	1	1
PM Peak Hour	11	6	17	1	0	1

Table 4.3: Multimodal Trip Generation

Residual Traffic Flows

- 5.6 The OGV trip rates in Appendix E have been combined with the car trips to derive the residual traffic flows generated by the proposal.

	Car Trips			OGV Trips			Total Vehicle Trips		
	In	Out	Total	In	Out	Total	In	Out	Total
AM Peak Hour	1	5	6	0	0	0	1	5	6
PM Peak Hour	4	2	6	0	0	0	4	2	6

Table 4.4: Residual Traffic Flows

Traffic Impact

- 5.7 Even with the worst-case trip rates used, the assessment shows that the proposal will not generate a significant level of traffic.
- 5.8 When the development impact is considered in the context of the use of the site as a commuter car park, as shown in Table 4.5, the net impact of the proposal is a reduction in site traffic flows.

	Existing Site Traffic			Proposed Site Traffic			Net Impact		
	In	Out	Total	In	Out	Total	In	Out	Total
AM Peak Hour	11	1	12	1	5	6	-10	4	-6
PM Peak Hour	1	9	10	4	2	6	3	-8	-4

Table 4.5: Net Traffic Impact

Parking Assessment

- 5.9 A number of factors are considered in evaluating the suitability of sites for reduced levels of parking and this should be set against a background of recent changes in travel and car ownership patterns, particularly in large metropolitan areas.
- 5.10 MCC does not maintain any parking standards for residential developments and each site is taken on its own merits. Policy T2 of the Core Strategy states that developments in the city centre should:

‘... provide a level of car parking which reflects the highly accessible nature of the location.’

- 5.11 The assessment shows that the site occupies a highly accessible location in the city centre and that the site has the potential to appeal to residents who do not own a car. The applicant will fund modifications to the TRO to provide one disabled parking space on-street. Blue Badge holders are also permitted to park for free and unlimited duration in existing Pay & Display bays. Public car parks are also accessible from the site, and these provide disabled and EV parking spaces.
- 5.12 To examine the appropriateness of the site for car-free development a comparison has been made with other consented car-free developments across the city.

Site	Area	No. of Units	Standard Parking Rate	Disabled Parking	GMAL	Parking Zone
Proposal Site	City Centre - Great Jackson Street	107	0%	On-street	8	4
Crusader Works	City Centre - Piccadilly	201	0%	On-street	8	4
Bendix Street	City Centre - New Cross	161	0%	On-street	8	-
Ferrous	City Centre - Piccadilly	107	0%	On-street	8	4
Talbot Mill	City Centre - Castlefield St Georges	208	0%	On-street	7	-

Table 4.6: Car-free Precedents

- 5.13 Table 4.6 shows that the site has a comparable accessibility level to other locations across the city where car-free residential development has been found to be acceptable by MCC.
- 5.14 Reduced parking levels at new developments is backed up by extensive research undertaken by TfL¹. The TfL study examined the proportion of households with cars by the level of parking provision in the development and other key characteristics. The study shows that the more parking provided on site the more a particular development will appeal to car owning people and / or people who prioritise car use when deciding where to live. In nearly all cases, as the level of parking provision increases so does levels of car ownership and use. This is particularly the case for households living in developments with less than 0.5 parking spaces per unit where residents are found to be significantly less likely to own a car, than at developments with a higher rate of parking provision. This means that residential developments with levels of car parking below 50% are more likely to be occupied by people without cars. The research supports the fact that car-free developments appeal to people who do not own a car.
- 5.15 The site sits within parking zone 4 with parking controls and charges in place between 8am and 8pm (Monday to Sunday). The parking controls will restrict the practicability of a resident storing a car on street.
- 5.16 In the unlikely event a resident does own a car then they will be able to arrange contract parking at one of the public car parks in the city centre. The nearest existing public car parks to the site provide over 2,000 parking spaces (including EV charging spaces). The consented development next to the site (Crown Street Phase 2) includes a Multi Storey Car Park that will provide 398 public car parking spaces, including disabled and EV spaces.

Summary & Policy Compliance

- 5.17 The assessment shows that the site will not be associated with a significant level of traffic, even with the worst-case TRICS rates used. When considered in the context of the use of the site as a commuter car park, the proposal will result in a reduction in traffic on the network. Based on this the proposal will not have a significant impact on highway operation or road safety.
- 5.18 NPPF states that developments should only be prevented on highways grounds if there would be an unacceptable impact on highway safety or where residual cumulative impacts would be severe. The proposal is shown to accord with this policy.
- 5.19 It is also shown that the site meets the established criteria for car-free living and will largely appeal to people who do not own a car. The existing parking controls in the area will remove the practicability of storing a car on street. In the unlikely event that a resident owns a car, opportunities exist nearby for residents to arrange contract parking in public car parks.
- 5.20 Delivering a car-free development in this location will assist MCC in meeting its wider ambitious to reduce carbon generated by developments and reduce development traffic generations. The principle of car-free living has already been established across the city in locations with comparable accessibility characteristics.
- 5.21 The proposal includes the provision of one disabled parking space on street. Blue Badge holders are also permitted to park for free and without duration limits in the existing Pay & Display parking spaces, of which there are numerous on Great Jackson Street. Disabled parking is also available in the public car parks, including the public car park being constructed as part of Crown Street Phase 2. EV charging is also available in existing and future public car parks close to the site.
- 5.22 NPPF and MCC's Core Strategy supports developments with reduced levels of parking that meet suitable criteria. The development is shown to accord with this policy.

6 Conclusions

- 6.1 SK has been appointed to prepare a TS that assesses the implications a planning application for 53 apartments on the site of Bridgewater House in Manchester city centre. The proposal will retain the existing building on site and convert this to apartment use and construct a new block.

¹ Transport for London (2012), Residential Parking Provision in New Developments

- 6.2 The proposal includes modifications to the TRO on Great Jackson Street to provide a disabled parking space. The TRO proposal does not result in a net loss of existing Pay & Display spaces.
- 6.3 The suitability of the site for car-free living has also been assessed and it is shown that the site meets the criteria typically agreed with MCC at other car-free sites across the city. The existing parking controls in the area will remove the practicability of storing a car on street. In the unlikely event that a resident owns a car, opportunities exist nearby for residents to arrange contract parking in public car parks.
- 6.4 The accessibility of the site has been assessed and it is concluded that the site occupies a highly sustainable location with existing infrastructure that is appropriate to serve the development. This finding is in line with MCC conclusions on adjacent and larger approved developments including Crown Street Phase 1 and Phase 2.
- 6.5 The proposal includes a generous level of cycle parking, reinstatement of redundant access points, bounding footway re-surfacing, and a Travel Plan. The interventions proposed directly and reasonably relate to the scale and nature of the proposed development. No further interventions are considered to be required to make the development acceptable in planning terms.
- 6.6 Service access and refuse collection arrangements have been designed to fit with those agreed for the consented Crown Street Phase 1 development.
- 6.7 The traffic impact and road safety assessments show that the proposal will not have an impact on existing highway operation or road safety patterns, both when considered in isolation or when compared to the previous use of the site as a commuter car park.
- 6.8 It is concluded that the proposed development meets the requirements of local and national policy, and that the residual traffic and road safety impact of the proposal will not be severe or unacceptable when examined in the context of NPPF. It is also shown that the proposal meets the sustainable transport requirements of NPPF.

Appendix A

Ground floor plan

-  Existing walls (Bridgewater House)
-  Proposed walls (Bridgewater House)
-  Outline of apartments (G.I.A.)
-  Bike hanging storagess

Chester road

D _____

outline of existing pavement _____

Crown Street

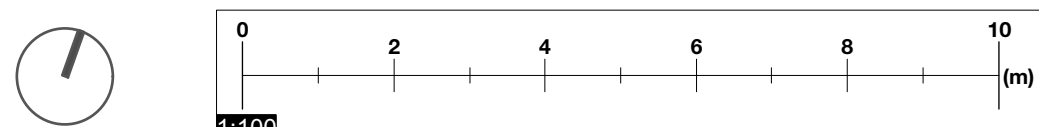
lightwell B -

lightwell C-

A_____

6

Silvercroft street



PLANNING ISSUE

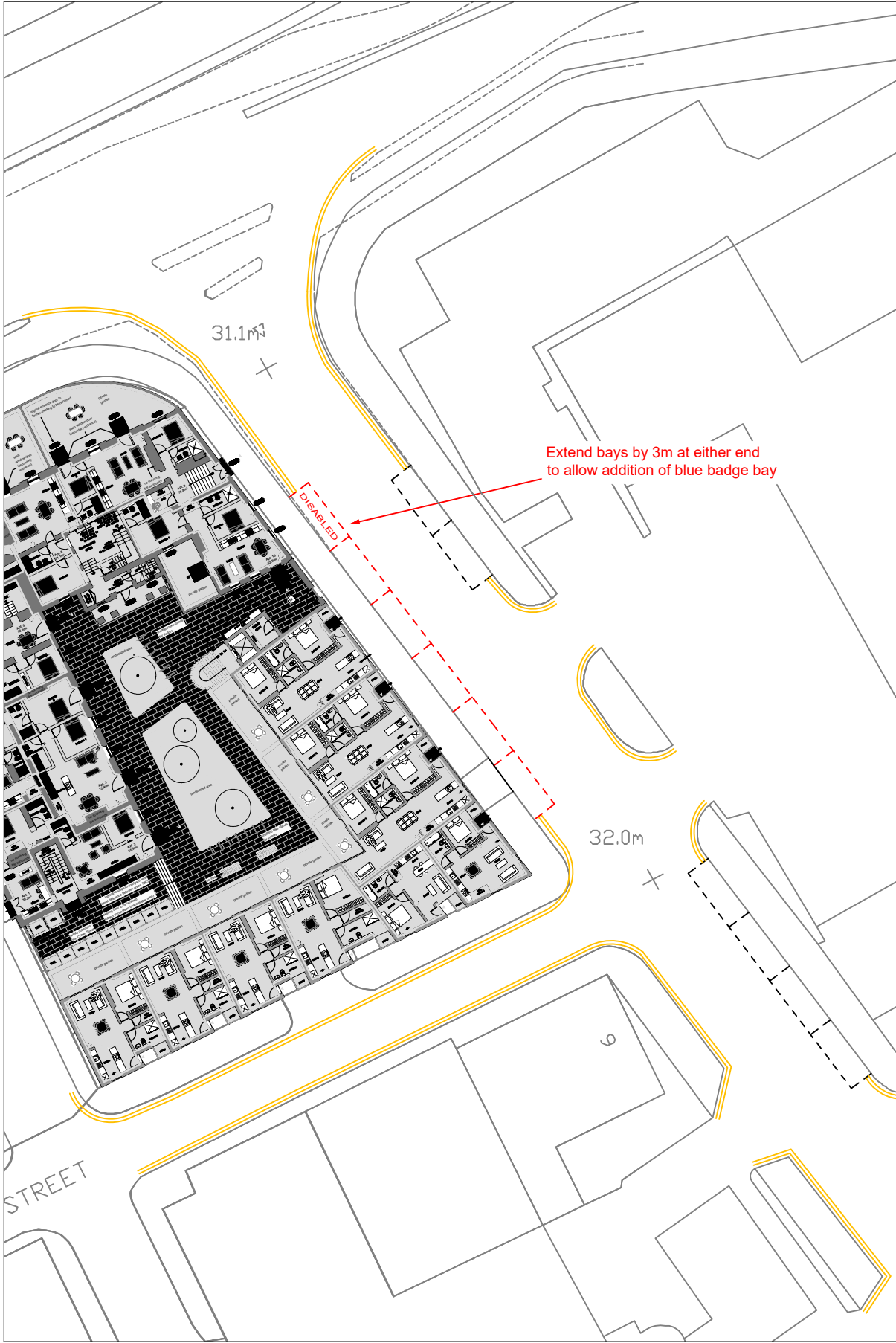
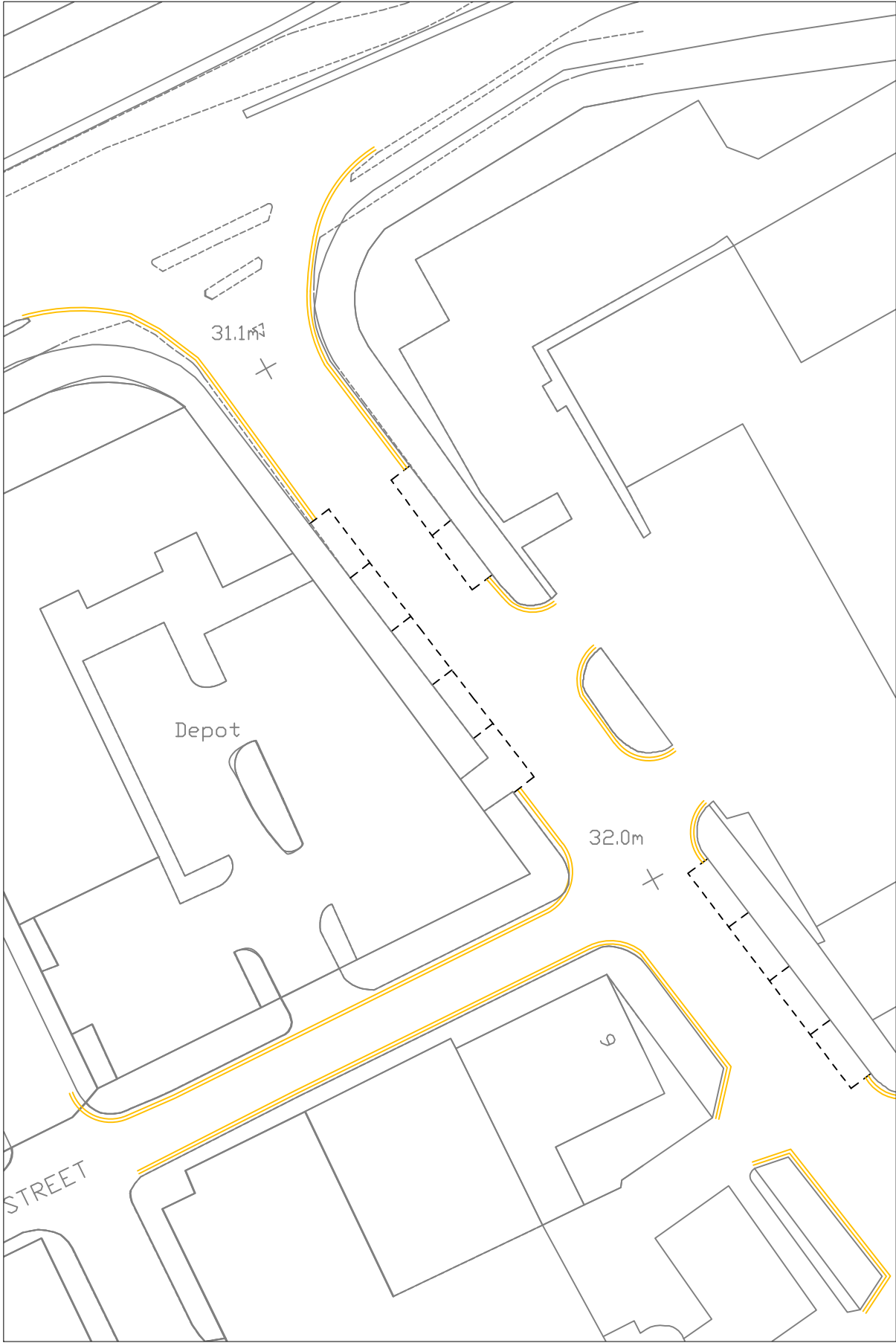
Do not scale from this drawing.

All dimensions are to be checked on site prior to commencing works on site. Discrepancy found between information given on this drawing and that given elsewhere or recorded on site shall be notified immediately to the project architect in writing.

rev. C date 20.06.22 description BIN STORE AMENDED; BIKE STANDS & STORAGE ADDED; M&E CUPBOARDS & SWITCH ROOMS ADDED; NOTES UPDATED

snookarchitects project: **bridgewater house**
 89 Wood Street dwg no: **111-C**
 Liverpool dwg title: **proposed ground floor**
 L1 4NU scale: **1:100 @ a1**
 t: 0151 707 0100

Appendix B



THIS DRAWING MAY BE USED ONLY FOR
THE PURPOSE INTENDED AND ONLY
WRITTEN DIMENSIONS SHALL BE USED

NOTES
Layout subject to detailed design
and confirmation of statutory
undertakers' equipment.

Site layout shown illustratively

Revision Details	By	Date	Suffix
	Check		

Drawing Number
SK22236-003

Bridgewater House, Manchester

Drawing Title
Proposed TRO modifications, Great Jackson Street

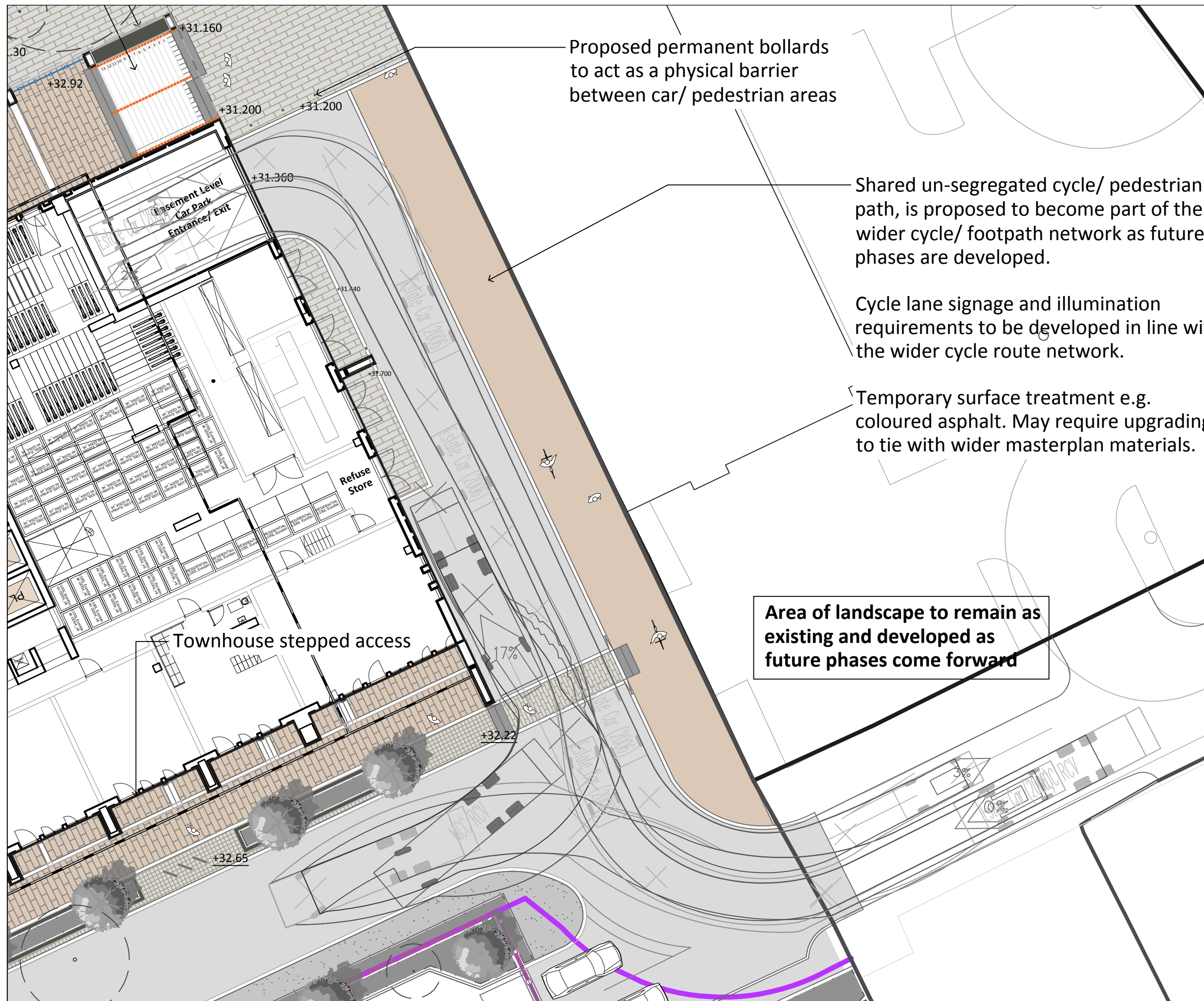
Scale at A3
1:500

Drawn	Approved
JAT	LGS
Check	Date
LGS	05.07.22

Existing

Proposed

Appendix C



THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED AND ONLY WRITTEN DIMENSIONS SHALL BE USED

NOTES

Vehicle Profiles

Vehicle	Overall Length	Overall Width	Overall Body Height	Min Body Ground Clearance	Track Width	Lock to Lock Time	Wall to Wall Turning Radius
MCC RCV	11.500m	2.550m	3.760m	0.312m	2.550m	2.00 sec	9.700m
Estate Car (2006)	4.710m	1.804m	1.442m	0.207m	1.756m	4.00 sec	5.950m

Revision Details	By	Date	Suffix
Check			

Drawing Number	
SK21767-003	
Crown Street Phase 1	
Drawing Title	
Swept Path Analysis Refuse Collection Vehicle & Large (Estate) Car	
Scale at A3	
1:200	
Drawn	Approved
KAB	JAT
Check	Date
JAT	13.06.18

SK SK Transport Planning Ltd
Albion Wharf | Manchester | M1 5LN
www.sktransport.co.uk
0161 234 6509

Appendix D

Bridgewater House, Manchester

Interim Travel Plan

220705/SK22236/ITP01(-01)

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Project	Document	Rev	Description	Authorised by	Signed	Date
SK22236	ITP01	-00	Draft	L Speers	LGS	31/05/2022
SK22236	ITP01	-01	Submission	L Speers	LGS	05/07/2022

1 Introduction

- 1.1 SK has been instructed to prepare an Interim Travel Plan for a residential development on the Bridgewater House site in Manchester city centre.
- 1.2 A Transport Statement (TS) has been prepared to accompany the planning application and this should be read in conjunction with this document for full details of the development impact and layouts.

Development Proposal

- 1.3 The landscape layout is attached as Appendix A of the TS.
- 1.4 The proposal seeks to retain the existing building on site and convert this to apartments. A new block will also be constructed. The development will deliver a total of 53 apartments.
- 1.5 Direct pedestrian entrances will be provided to properties fronting Great Jackson Street and Silvercroft Street. Additional pedestrian entrances will be available to the retained building from Crown Street and Great Jackson Street, and a central courtyard area will also open onto both Crown Street and Great Jackson Street, providing access to this central space and properties fronting the courtyard. The applicant will fund the reinstatement of redundant vehicle access points and resurfacing of footways bounding the site.
- 1.6 Cycle parking will be provided in covered and secure locations in the courtyard in line with MCC standards (minimum of 0.5 per apartment). Visitor parking will also be provided on-site in line with advice on short-stay guidance in DfT's LTN 2/20 this will be uncovered Sheffield stands. The layout provides 100% resident spaces and 13 Sheffield stands for use by visitors.
- 1.7 The proposal is car-free and the appropriateness of this is considered further in Section 5 of the TS.
- 1.8 The applicant will fund the changes required to existing TRO to provide one disabled parking bay outside the site on Great Jackson Street. The proposal shown in Appendix B of the TS will not result in a loss of existing Pay & Display spaces. Blue Badge holders are permitted to park for free and unlimited duration in Pay & Display bays. The site also sits close to existing and proposed public car parks that provide disabled and EV charging spaces.
- 1.9 The site is served by seven existing car club vehicles that will meet the occasional / casual car use needs of residents.
- 1.10 Servicing for the site has been designed to allow a co-ordinated approach with the consented development site next door (Renaker's Crown Street Phase 1) and will be focused on the Crown Street frontage. Use of this street for servicing and refuse collection has been agreed with Renaker. The refuse store is located to allow bins to be accessed from Crown Street on collection day. This is the same arrangement as agreed with MCC for the Crown Street Phase 1 development.

Travel Plan Process

- 1.11 A Travel Plan is a tool for managing access to a site that aims to promote access by sustainable modes. It contains a package of measures designed to meet the objective to reduce car use generated from the site by supporting sustainable modes of transport and measures that will build on the location of a development site. In line with PPG and NPPF, the measures adopted should be commensurate with the scale of impact from the development and the level of intervention required to influence residents to take up sustainable modes and to reduce significant single occupancy car trips.
- 1.12 In this instance, the site is located in Manchester city centre. The TS assessment shows that access can be gained to numerous services and facilities using existing sustainable infrastructure and without needing to use or even own a car. The locational qualities of the site and the infrastructure to be delivered as part of the proposal are reflected in the low level of intervention required from the Travel Plan.

- 1.13 Within a Travel Plan there is a need to set objectives, targets and indicators, the purpose of which is to monitor change and review policies to meet the needs of the users of the site. A future management and monitoring mechanism are set out for adoption in the final Travel Plan.
- 1.14 The Travel Plan process is not a one-off, static event, but a constantly evolving strategy that should grow and adapt to meet the travel patterns and needs of the end users of the site. This interim version of the Travel Plan is the first stage of the process and outlines the aims and objectives and sets the level of intervention required to encourage and support sustainable living practices at the site.
- 1.15 The Interim Travel Plan draws on the following guidance and best practice:
 - Ministry of Housing, Communities & Local Government (2021), National Planning Policy Framework
 - Ministry of Housing, Communities & Local Government (2016), Planning Practice Guidance
 - MCC (2012) Manchester's Local Development Framework: Core Strategy Development Plan
 - MCC (2019) Draft Zero Carbon Framework 2020-2038
 - Transport for Greater Manchester (2013), Transport for Sustainable Communities
 - Transport for Greater Manchester (2017), Greater Manchester Transport Strategy 2040
 - Department for Transport (2020), Decarbonising Transport: Setting the Challenge
 - Chartered Institution of Highways & Transportation (2019), Better planning, better transport, better places

The Travel Plan Pyramid

- 1.16 The Department of Transport (DfT) states that it is helpful to:

‘... view the Travel Plan as a pyramid of measures and actions, some of which may form the foundations of the Travel Plan and part of which will be outcomes from the Transport Assessment.’¹
- 1.17 The DfT pyramid (shown in Figure 1.1) views the Travel Plan process as a series of considerations that is constructed from the ground up, with each new layer building on the last within the context of objectives sought.
- 1.18 At the bottom of the pyramid is the location of the site and at this stage characteristics of access to the site by all modes of travel. This is set out in Section 2 of the Plan.
- 1.19 At the next level the physical aspects of the proposed development are set out to allow acknowledgement of that some Travel Plan measures are built-in to the layout to influence travel. These measures include localised footway improvements, car-free and cycle parking proposals. This information is as set out above in Section 1 and also in Section 4.
- 1.20 The remaining levels outline the management, promotion and *soft* measures that are to be adopted as part of the travel plan to reinforce the site location, infrastructure proposals and access opportunities. These are set out in Sections 3 to 4 of the Plan. Section 4 also sets out the Travel Plan Action Plan.
- 1.21 Section 5 sets out the monitoring plan which details how and when the travel plan will be reviewed. This includes how and when surveys will be undertaken, and the targets that will be set to meet the stated objectives.

¹ Department for Transport (2009), Delivering Travel Plans through the Planning Process



Figure 1.1: Travel Plan Pyramid
[source: DfT 2008]

Travel Plan Benefits

- 1.22 Travel plans result in a variety of health, financial, environmental and site operation benefits, which are set out below.
- 1.23 Reduced levels of single occupancy car use can lead to an improvement in air quality both surrounding the site and across the wider area. In addition, increases in active travel have very real impact on resident health as moderate physical activity can help prevent obesity, mental health issues, cancer, high blood pressure and cardiovascular disease.
- 1.24 The financial benefits of Travel Plans include personal cost savings from using more cost-effective modes of travel and indirect and wider cost savings relating to reduced illness and reduced accident rates.
- 1.25 The environmental benefits of Travel Plans include reduced carbon emissions and air quality issues.

Travel Plan Objectives

- 1.26 The main objectives of a Travel Plan are to reduce the environmental effects of transport associated with developments and raise awareness of sustainable means of access. In this instance, residents will already have already chosen to live without owning a car and so the main objective of the Travel Plan is to outline a sustainable and realistic strategy that will provide residents with information on the various travel options available to them.
- 1.27 A secondary objective of the Travel Plan is to outline an Action Plan for the site that clearly defines the strategy and monitoring measures to be adopted to meet the defined objectives of the Plan. To this end, the Plan seeks:

- To support site users to make informed travel choices
- To set out a suitable monitoring and management structure

2 Audit

Site Location

- 2.1 Figure 2.1 shows that the site is located on the southern side of the city on a key gateway route into the city centre. The site sits in a strategic regeneration area of the city (Great Jackson Street Development Framework) and is located between Renaker's Crown Street development site and De Trafford's Great Jackson Street development site.
- 2.2 The site is occupied by Bridgewater House and a parking area. The parking area has been in use as a commuter car park with 26 spaces.
- 2.3 Vehicle access to the site is provided from Great Jackson Street and Silvercroft Street.

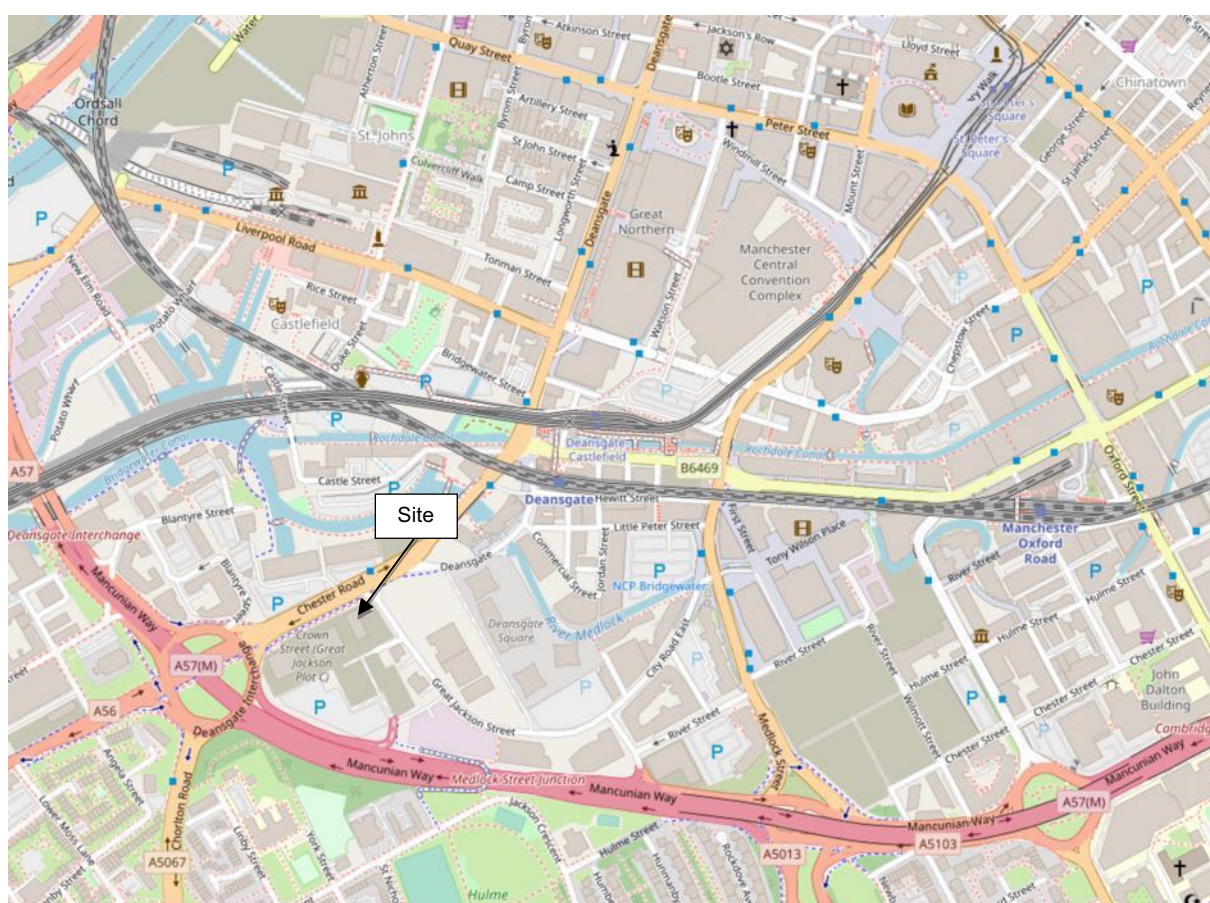


Figure 2.1: Site Location
[source: ISO4]

Local Highway Network

- 2.4 Vehicular access to the site is provided from Silvercroft Street and Great Jackson Street.
- 2.5 Silvercroft Street is a 5.5m wide road with 3m footway on the northern side of the road (site frontage) and a 20mph speed limit. Silvercroft Street connects to both Great Jackson Street and Crown Street. Access (entry only) can also be gained to Crown Street and Silvercroft Street via the off slip from Mancunian Way.
- 2.6 Great Jackson Street is a two-way road with 10m carriageway and 3m+ footways on both sides, on-street parking is present on both sides along much of its length. The road is subject to a 20mph speed limit. From Chester Road access is provided to Great Jackson Street via a left in / left out arrangement.

- 2.7 Crown Street to the west of the proposal site has been reconfigured as part of the Crown Street development fronting Chester Road, providing a wide footway/cycleway along the frontage of the proposal site. Development is continuing on the Crown Street area to the south-west of the proposal site.
- 2.8 The Site sits within Zone 4 of the City Centre Pay & Display parking system. In Zone 4, parking charges apply and there is a maximum stay of ten hours (Monday to Sunday, 8am to 8pm).
- 2.9 There are currently five parking spaces located outside the site on western side of Great Jackson Street and two parking spaces located opposite. Continuing south, Pay & Display Bays are present on both sides of the street broken up by sections in the vicinity of junctions. There currently no bays provided on the western side over the length immediately to the south of the proposal site, though it is understood that bays are proposed in this location in conjunction with further development of the adjacent site.
- 2.10 The proposal for the Crown Street primary school includes the provision of a new drop-off bay on Great Jackson Street. This is created by modifying the existing TRO to remove double yellow lines.
- 2.11 Details of existing site traffic flows and road safety data is provided in the TS.

Public Car Parks

- 2.12 Table 2.1 shows there are over 2,000 off-street parking spaces in public car parks within a 10-minute walk of the site, with EV charging facilities provided at most of them.
- 2.13 The Crown Street Phase 2 development, adjacent to the site, has consent for the construction of a Multistorey Car Park that will provide both private and public car parking. The car park will have 389 public parking spaces, including EV charging and disabled spaces.

Car Park	Operator	Total Spaces	EV Spaces	Walk Time (mins)
Bridgewater Hall	MCC	280	-	5
Great Northern 1	NCP	527	Yes	6
Great Northern 2	NCP	721	Yes	6
First Street	Q Park	700	Yes	9

Table 2.1: Public Car Parks

Pedestrian & Cycle Routes

- 2.14 The site is well connected to key destinations by a comprehensive network of pedestrian routes, typical of its city centre location. The footways bounding the site are in excess of 2m in width. Connections to the city centre can be gained either by using local streets and routes that have been created through the Regeneration area or the footways on Chester Road.
- 2.15 Signalised crossings are provided at Bridgewater Viaduct / Whitworth Street West, Whitworth Street West / Medlock Street, and Deansgate Interchange.
- 2.16 The proposal is well placed for access on foot with opportunities for pedestrian movements available using existing infrastructure. The appropriateness of the existing pedestrian infrastructure to serve residential development has been previously found acceptable by MCC when considering the much larger consented developments next to the site.
- 2.17 Figure 2.2 shows the site relates well to existing formal and informal cycle routes on the Greater Manchester Cycle Network. Marked cycle routes are also present along the frontage on Chester Road and a on Great Jackson Street. These routes provide connections to Route 6 of National Cycle Network on Whitworth Street West.
- 2.18 The site sits adjacent to the recently completed Cyclops facility at Deansgate Interchange. This provides a connection to the Bee Network 'Chorlton Busy Beeways' improvement shown in green

on Figure 2.3. Bee Network improvements are also proposed to the north of the site as part of the 'City Centre Triangle', shown in brown on Figure 2.3.

- 2.19 The proposal is well placed for access on bike with opportunities for movements available using existing infrastructure. The appropriateness of the existing cycle infrastructure to serve residential development has been previously found acceptable by MCC when considering the much larger consented developments next to the site.
- 2.20 Cycle parking is provided across the city centre adjacent to local amenities.

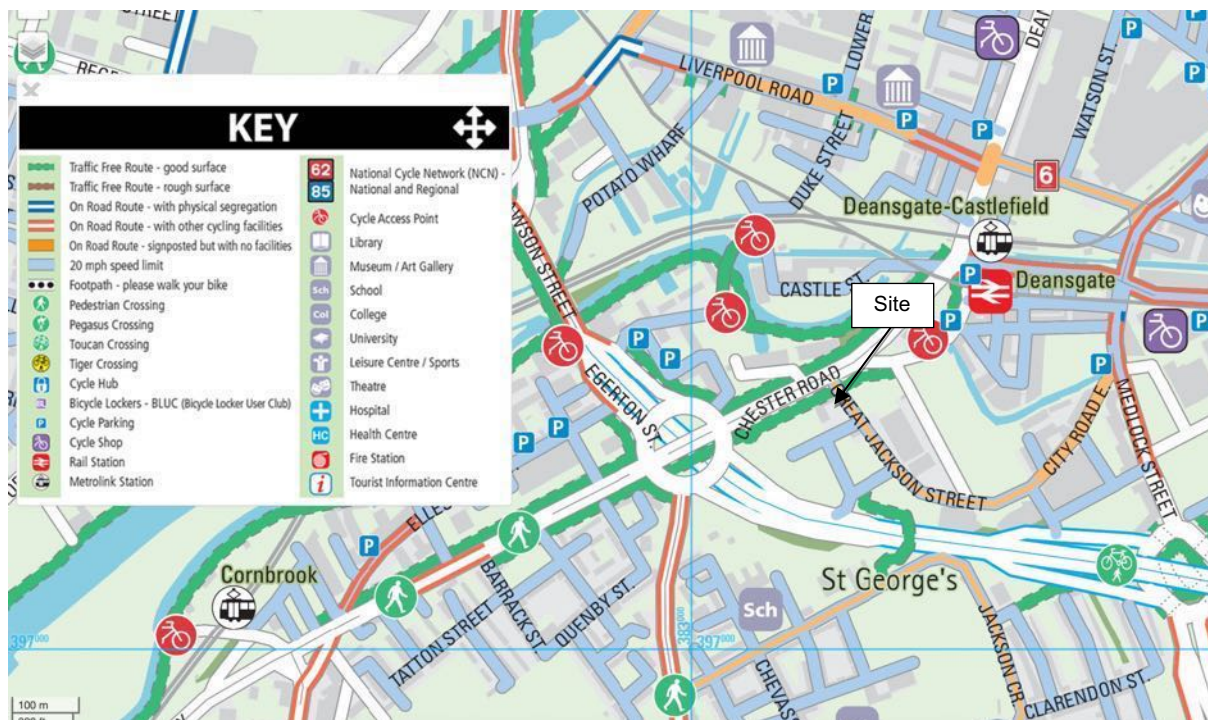


Figure 2.2: Cycle Network
[source: TfGM]

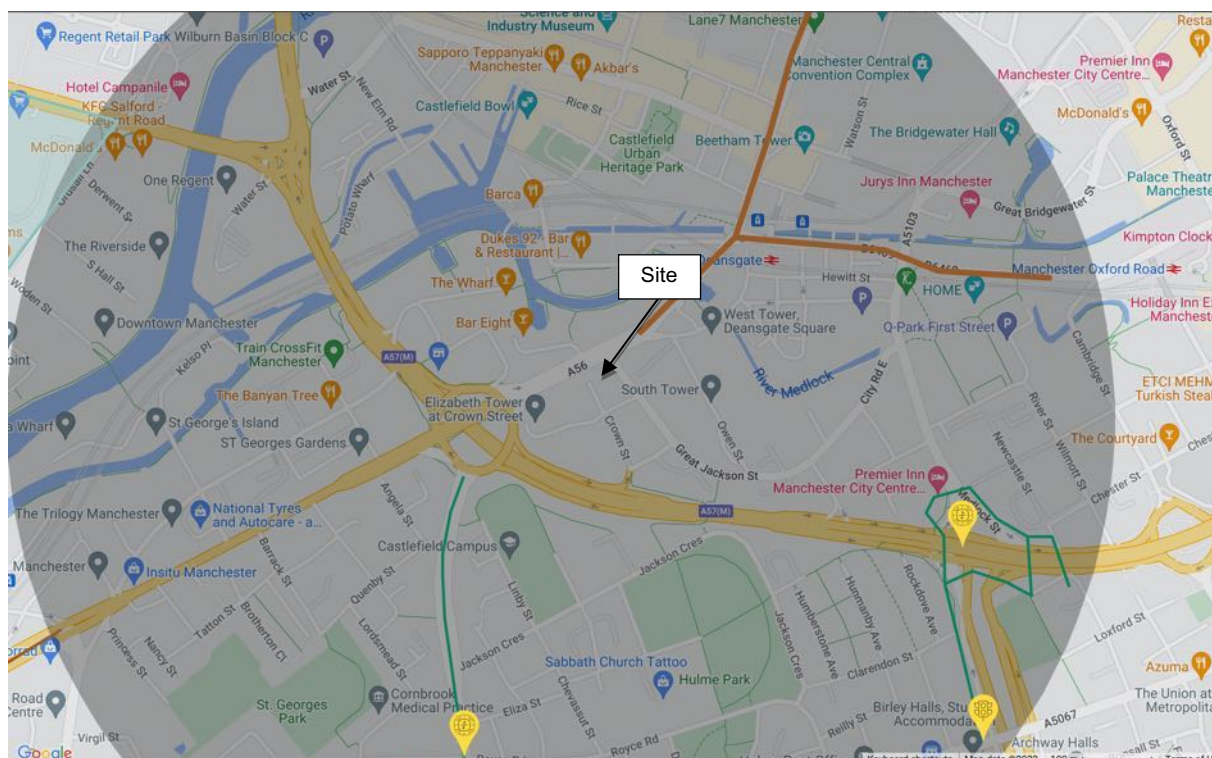


Figure 2.3: Bee Network Schemes
[source: TfGM]

Public Transport Routes

- 2.21 The nearest bus stops to the site are located on Whitworth Street West, Bridgewater Viaduct and Chester Road. These bus stops are all within a 5-minute walk of the site.
- 2.22 TfGM's interactive bus tool shows that the nearest bus stops are served by around 1,200 buses per day (Monday to Friday). These services provide comprehensive coverage of the city centre and regional destinations. The services also provide good coverage of early morning, evening, and weekend periods.
- 2.23 The site is located a 4-minute walk from Deansgate-Castlefield tram and train station. Access can be gained to the station using the footway fronting the Proposed Development on Chester Road and crossing at the existing signalised facility at the junction of Bridgewater Viaduct / Whitworth Street West or by using the low trafficked routes through the Great Jackson Street Development Regeneration area.
- 2.24 The site benefits from a very good level of accessibility by public transport.

Car Club Vehicles

- 2.25 Enterprise Car Club offers a cost-effective, hassle-free, and greener alternative to car ownership in accessible areas. The service offers pay by hour car hire, which residents a more convenient and cost-effective alternative to car ownership for situations if a vehicle is required for occasional journeys. The Car Club also maintains larger vehicles and vans at locations across the city.
- 2.26 The nearest Car Club vehicles to the site are located on Whitworth Street West, Castle Street, Bridgewater Street, Duke Street, First Street. There are a total of seven cars are available in these locations.
- 2.27 It is understood that further spaces are to be delivered as part of the already consented schemes within the Great Jackson Street Regeneration area.

Accessibility Assessment

- 2.28 The audit above sets out the pedestrian, cycle and public transport infrastructure serving the site. The suitability of the sustainable transport infrastructure serving the location of the site has recently been found acceptable by MCC when consenting the must larger residential developments located nearby. The accessibility assessment set out below confirms that the site is very well located in terms of access to existing sustainable transport infrastructure and distances to key trip attractors.
- 2.29 Two-thirds of all journeys in the UK are under-five miles and short distance trips offer the greatest opportunity for changes in travel behaviour. DfT best practice guidance states that walking has the potential to substitute for car trips under 2km. CIHT provides further advice on suitable walking distances these are set out in Table 2.2.

Destination Type	Walk Distance (m)	Walk Time (mins)*
Commuting / Education	2000	25
Local Centre / Local Retail	800	10
Other	1200	15

Table 2.2: CIHT Walk Distances
[source: CIHT]

- 2.30 Figure 2.4 shows that the site is within appropriate walk times of the destinations set out in Table 2.2. Figure 2.4 shows that core areas of the city centre are within 800m of the site, offering opportunities for residents to access numerous employment, retail, recreation, health and leisure destinations. All of the city centre and central areas of Salford (including all three universities) is within 2km of the site.
- 2.31 The assessment shows that, as would be expected, the site relates well to local amenities that can be accessed on foot.
- 2.32 A Greater Manchester Accessibility Level (GMAL) calculation has been undertaken for the Site. A GMAL is calculated using the interactive tool managed and maintained by TfGM. This tool measures accessibility by public transport of a point of interest and provides a score between 1 and 8, where 1 is a low level of accessibility and 8 is the highest level of accessibility.
- 2.33 The site has a GMAL of 8, which is an exceptional level of accessibility.

The screenshot displays the MappingGM web application. The map shows a street network with a red area labeled 'Site' and a blue area labeled 'M'. A legend on the right lists various layers like Boundaries, Communications, Environment and ecology, Health and wellbeing, Housing and housing market, People and communities, Poverty and deprivation, Social and public amenities, Transport, Bus stops, Bus routes, Metrolink stops, Metrolink lines, Rail stations, Rail network, Cycle Network (Sustrans), Cycle Network (TfGM), Cycle hubs (TfGM), and Rights of way. A search bar is at the top right.

9

- 3.2 The applicant, or their successor in title, will continue to have a regular overseeing role in the progress of the Plan and is committed to funding the resources required for its implementation.
- 3.3 Travel Plan Co-ordinators play an important role in developing, implementing and managing Travel Plans. The Travel Plan Co-ordinator for the site will be identified prior to occupation of the development and contact details provided to MCC.
- 3.4 The Co-ordinator will form the main point of contact for the local authority and residents. The Co-ordinator will also be responsible for raising awareness and marketing the Travel Plan and surveying its effectiveness and assessing this against the stated objectives and targets.
- 3.5 In summary, the Travel Plan Co-ordinator's general role and responsibilities will include:
 - Implementing the Plan measures
 - Providing a point of contact for site residents, the local community and MCC
 - Publicising and raising awareness of local and national initiatives
 - Preparing and issuing the travel packs
 - Providing periodic updates to residents on changes to local services and facilities
 - Monitoring and surveying travel patterns
 - Periodically reporting to MCC

Funding Mechanisms

- 3.6 The applicant is committed to the implementation and successful delivery of the Travel Plan's measures to meet the stated plan objectives.
- 3.7 The applicant has confirmed that it will fund the cost of time for the Travel Plan Co-ordinator to implement Plan measures, respond to resident issues, and undertake the annual survey and Plan review.

4 Toolkit & Action Plan

Promotion & Marketing

- 4.1 Good communication is a vital component of the Travel Plan to ensure that residents are fully aware of the options available to them. Research undertaken by DfT shows that promotion and marketing of Travel Plan's is one of the most important measures in encouraging people to travel sustainably and actively. This is particularly the case for a site such as this development that occupies an exceptionally sustainable location with very good opportunities for sustainable trip making from day one of the development.
- 4.2 The Travel Plan Coordinator will be responsible for marketing and promoting the Travel Plan. The following measures will be used to promote the Travel Plan:
 1. Travel packs for all new households
 2. Promotion of local authority / local area travel campaigns / networks
 3. Distribution of promotional materials
- 4.3 In summary, the travel packs will provide:
 1. Travel Plan Co-ordinator contact details
 2. Information on TfGM on-line and phone app journey planning software
 3. Information on TfGM cycle and walking route maps
 4. Information on TfGM bus maps and timetables
 5. Details of current TfGM local initiatives
- 4.4 Residents will be encouraged to familiarise themselves with the journey planning websites and phone apps promoted by TfGM on its website. The [MyTfGM](http://my.tfgm.com/)² website currently directs users to use the [Trip Go](https://tripgo.com)³ journey planning software.

² <http://my.tfgm.com/>

³ <https://tripgo.com>

- 4.5 The Travel Plan Co-ordinator will also be responsible for making residents aware of the many benefits for travelling more sustainably:

1. Improve health and wellbeing
2. Save money
3. Reduce traffic congestion
4. Increase physical activity and fitness
5. Improve air quality
6. Reduce carbon emissions
7. Meet new people

Walking

- 4.6 Walking is simple, free and the easiest ways to get more active and feel healthier. The TS shows that the site is well located for access on foot.
- 4.7 The applicant will fund the reinstatement of redundant vehicle access points and resurfacing of footways bounding the site.
- 4.8 The CIHT's simple rule has been applied to the layout and the transport strategy so that it helps the city centre become a place that is planned for people rather than cars, so that it results in a place for people, rather than one dominated by traffic. The proposal is car-free and this has clear knock benefits, including improved health and wellbeing of residents and air quality benefits, and reduced pressures on highway network operation, and reductions in emissions.
- 4.9 Information on local walking routes will be provided to residents in the travel pack. The travel pack will also include details of on-line and phone app journey planning software that is available from [TfGM](#).
- 4.10 The NHS Active 10 tracker app to set daily goals for journeys so that users can set challenges. Bigger challenge with the Coach to 5km phone app. Both are available from this [NHS website](#)⁴ and details will be provided in the noticeboard.

Cycling

- 4.11 Cycling is an excellent mode of travel which is healthier, cheaper, and more enjoyable than driving. Cycling has the following benefits:
1. Builds physical strength and develops healthy bones and muscles
 2. Lowering blood pressure and reducing the risk of heart attacks, strokes and diabetes
 3. A moderate cycle ride burns 400 calories per hour and is a great way to control weight
- 4.12 The site relates well to Greater Manchester cycle network. The proposal includes a generous level of cycle parking for residents and visitor cycle parking.
- 4.13 TfGM also offer [free cycle training and maintenance sessions](#) for adults. The cycle training and maintenance will be promoted to residents by the Travel Plan Co-ordinator and information relating to this is provided in the travel pack.
- 4.14 Details of regular cycle events, such the Summer Cycle Camp, Let's Ride Pop-Up and HSBC's Let's Ride Manchester are provided on the [TfGM](#) website. TfGM offer a cycle newsletter service is frequently updated with new route information and activities. This can be signed up for by using the [TfGM](#) website. These information resources will be promoted to residents in the travel pack.
- 4.15 Residents will be provided details of local bike retailers, such as [The Manchester Bike Hire](#)⁵, [Harry Halls Cycles](#)⁶ and [Evans Cycles](#)⁷.

⁴ <https://www.nhs.uk/better-health/get-active/>

⁵ <http://www.manchesterbikehire.co.uk/>

⁶ <https://www.harryhallcycles.co.uk/>

⁷ <https://www.evanscycles.com/>

- 4.16 [The Manchester Bike Hire](http://www.manchesterbikehire.co.uk/)⁸ also provides a hire service whereby cycles are dropped off for use. This scheme is a useful facility to allow non-bike owners to decide whether they would like to commit to the purchase of a bike. The scheme will be promoted to staff and visitors.
- 4.17 The Travel Plan Co-ordinator will promote events to encourage increased cycling such as competitions such as [Love to Ride](https://www.lovetoride.net/gm)⁹ to encourage new cycling journeys. As part of this bike riders log their mileage online, which contributes to a leader board and gives riders the chance to win prizes.

Public Transport

- 4.18 The assessment shows that the site is within a short walk of bus, tram and train services. The site is shown to have a GMAL of 8, which indicates an exceptional level of public transport accessibility.
- 4.19 The travel pack will include information relating to phone app and on-line journey planning information available on [TfGM](#).
- 4.20 The Travel Plan Co-ordinator will be responsible for regularly reviewing the TfGM database to check for service changes and new initiatives.

Reducing the Need to Travel & Efficient Vehicle Use

- 4.21 The proposal is car-free with disabled parking provided on-street. Disabled drivers are also permitted to park for free and unlimited periods in standard street parking bays in the city centre. Disabled and EV parking is also available in nearby public car parks.
- 4.22 Car Clubs provide an alternative to car ownership that complements the sustainable transport system Greater Manchester. Car clubs enable members to benefit from low cost, convenient and greener motoring, and a more sustainable pattern of living that provides access for ad-hoc vehicle use and negates the requirement to own and store a car. There are seven car club vehicles close to the site and these will be promoted to residents in the travel packs.
- 4.23 The travel pack will include information on on-line food retail facilities that serve the area, including [Sainsburys](#), [Tesco](#) and [Ocado](#).

Action Plan

- 4.24 An Action Plan has been developed that summarises the key actions from the Travel Plan. This will be reviewed and updated as part of each monitoring period.
- 4.25 The Action Plan has been split into four key output periods based on the following:
- Quick Wins (Q) – prior to occupation
 - Short (S) – can be achieved within 12 months of occupation
 - Ongoing (O) – no set timescales as will be regularly reviewed and updated

⁸ <http://www.manchesterbikehire.co.uk/>

⁹ <https://www.lovetoride.net/gm>

General	• Appointment of the Travel Plan Co-ordinator (Q) • Agreement of Travel Plan budget (Q) • Collection of latest travel information and update briefing (Q) (O) • Introduction of identified <i>firm</i> measures (Q)
Marketing	• Official launch of the Travel Plan (S) • Preparation of travel packs (Q) (O) • Promotion of national campaigns (O) • Preparation of material to update residents with any service changes (O)
Infrastructure	• Provision of secure cycle parking (Q) • Provision of car-free scheme (Q) • Localised pedestrian improvements (Q) • Amendments to TRO on Great Jackson Street (Q) • Promotion of car club vehicles (O)
Monitoring	• Baseline travel survey (S) • Review and update of targets (S) • Periodic travel surveys (O) • Preparation of periodic monitoring reports (O)

Table 4.1: Action Plan

5 Monitoring, Targets & Review Mechanisms

Data Collection & Analysis

5.1 Travel surveys will be undertaken within six months of the site being occupied and the results from the survey will be then used to set the targets for the Travel Plan and to update the measures, if required. A monitoring report will set out the results of the survey and any changes to the targets/measures and this will be issued to MCC within three months of the survey.

5.2 The surveys will investigate the following information:

1. Place of residence
2. Usual mode of travel
3. Car and cycle ownership
4. Initiatives that would encourage a change in mode

5.3 Following the baseline survey, surveys will be undertaken periodically over a three-year period.

Interim Targets

5.4 In line with DfT guidance, action-based targets have been set for the Interim Travel Plan. Action-based target are based on the Travel Plan reaching set milestones or indicators.

5.5 The following action-based targets have been set:

- Prepare/issue travel packs for each resident on occupation
- Survey existing resident travel patterns within 6 months of occupation

5.6 Quantitative targets also provide a useful indicator against which the performance of the Travel Plan can be assessed. The targets are required to be SMART (Site-specific, Measurable, Achievable, Realistic and Timed). These targets are used to review and assess the impact of the Plan overtime. The final targets for the Plan will be set following the first travel surveys.

Appendix E

Calculation Reference: AUDIT-443201-220510-0534

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : C - FLATS PRIVATELY OWNED
MULTI-MODAL OGVS

Selected regions and areas:

02	SOUTH EAST	
	BD BEDFORDSHIRE	1 days
	EX ESSEX	1 days
	HC HAMPSHIRE	1 days
	HF HERTFORDSHIRE	1 days
04	EAST ANGLIA	
	NF NORFOLK	1 days
	SF SUFFOLK	1 days
08	NORTH WEST	
	GM GREATER MANCHESTER	1 days
09	NORTH	
	CB CUMBRIA	1 days
10	WALES	
	CO CONWY	1 days
11	SCOTLAND	
	SA SOUTH AYRSHIRE	1 days
	SR STIRLING	2 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
Actual Range: 20 to 94 (units:)
Range Selected by User: 20 to 100 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/11 to 15/10/21

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Tuesday	4 days
Wednesday	2 days
Thursday	4 days
Friday	1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	12 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Town Centre	2
Edge of Town Centre	10

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3 12 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

10,001 to 15,000	4 days
15,001 to 20,000	2 days
25,001 to 50,000	6 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

50,001 to 75,000	5 days
75,001 to 100,000	3 days
125,001 to 250,000	1 days
250,001 to 500,000	2 days
500,001 or More	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	5 days
1.1 to 1.5	7 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	2 days
No	10 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	12 days
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This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	BD-03-C-02 STANBRIDGE ROAD LEIGHTON BUZZARD	BLOCKS OF FLATS	BEDFORDSHIRE
	Edge of Town Centre Residential Zone Total No of Dwellings:	62	
	Survey date: TUESDAY	15/05/18	Survey Type: MANUAL
2	CB-03-C-01 KING STREET CARLISLE	BLOCK OF FLATS	CUMBRIA
	Town Centre Built-Up Zone Total No of Dwellings:	40	
	Survey date: THURSDAY	12/06/14	Survey Type: MANUAL
3	CO-03-C-01 MOSTYN BROADWAY LLANDUDNO	BLOCKS OF FLATS	CONWY
	Edge of Town Centre Built-Up Zone Total No of Dwellings:	37	
	Survey date: MONDAY	26/03/18	Survey Type: MANUAL
4	EX-03-C-02 WESTCLIFF PARADE SOUTHEND-ON-SEA WESTCLIFF	BLOCK OF FLATS	ESSEX
	Edge of Town Centre Residential Zone Total No of Dwellings:	94	
	Survey date: TUESDAY	22/10/13	Survey Type: MANUAL
5	GM-03-C-03 FAIRFIELD STREET MANCHESTER	BLOCK OF FLATS	GREATER MANCHESTER
	Town Centre Built-Up Zone Total No of Dwellings:	20	
	Survey date: FRIDAY	14/10/11	Survey Type: MANUAL
6	HC-03-C-01 CROSS STREET PORTSMOUTH	BLOCKS OF FLATS	HAMPSHIRE
	Edge of Town Centre Built-Up Zone Total No of Dwellings:	90	
	Survey date: TUESDAY	05/06/18	Survey Type: MANUAL
7	HF-03-C-03 SHENLEY ROAD BOREHAMWOOD	BLOCK OF FLATS	HERTFORDSHIRE
	Edge of Town Centre Built-Up Zone Total No of Dwellings:	91	
	Survey date: THURSDAY	14/11/19	Survey Type: MANUAL
8	NF-03-C-01 PAGE STAIR LANE KING'S LYNN	BLOCKS OF FLATS	NORFOLK
	Edge of Town Centre Built-Up Zone Total No of Dwellings:	51	
	Survey date: THURSDAY	11/12/14	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

9	SA-03-C-01	BLOCK OF FLATS	SOUTH AYRSHIRE
	RACECOURSE ROAD		
	AYR		
	Edge of Town Centre		
	Residential Zone		
	Total No of Dwellings:	51	
	Survey date: TUESDAY	16/09/14	Survey Type: MANUAL
10	SF-03-C-01	BLOCKS OF FLATS	SUFFOLK
	STATION HILL		
	BURY ST EDMUNDS		
	Edge of Town Centre		
	Built-Up Zone		
	Total No of Dwellings:	85	
	Survey date: THURSDAY	18/12/14	Survey Type: MANUAL
11	SR-03-C-01	FLATS	STIRLING
	FORTHESIDE WAY		
	STIRLING		
	Edge of Town Centre		
	No Sub Category		
	Total No of Dwellings:	80	
	Survey date: WEDNESDAY	18/06/14	Survey Type: MANUAL
12	SR-03-C-02	FLATS	STIRLING
	ROSEBERRY TERRACE		
	STIRLING		
	Edge of Town Centre		
	Residential Zone		
	Total No of Dwellings:	48	
	Survey date: WEDNESDAY	18/06/14	Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
MS-03-C-04	Covid survey
SF-03-C-05	Covid survey

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL OGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	62	0.004	12	62	0.004	12	62	0.008
08:00 - 09:00	12	62	0.001	12	62	0.000	12	62	0.001
09:00 - 10:00	12	62	0.004	12	62	0.005	12	62	0.009
10:00 - 11:00	12	62	0.000	12	62	0.000	12	62	0.000
11:00 - 12:00	12	62	0.000	12	62	0.000	12	62	0.000
12:00 - 13:00	12	62	0.001	12	62	0.001	12	62	0.002
13:00 - 14:00	12	62	0.001	12	62	0.001	12	62	0.002
14:00 - 15:00	12	62	0.001	12	62	0.001	12	62	0.002
15:00 - 16:00	12	62	0.000	12	62	0.000	12	62	0.000
16:00 - 17:00	12	62	0.000	12	62	0.000	12	62	0.000
17:00 - 18:00	12	62	0.000	12	62	0.000	12	62	0.000
18:00 - 19:00	12	62	0.000	12	62	0.000	12	62	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.012			0.012			0.024

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
 MULTI-MODAL TOTAL PEOPLE
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period
 Total People to Total Vehicles ratio (all time periods and directions): 2.30

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	62	0.072	12	62	0.290	12	62	0.362
08:00 - 09:00	12	62	0.109	12	62	0.487	12	62	0.596
09:00 - 10:00	12	62	0.136	12	62	0.228	12	62	0.364
10:00 - 11:00	12	62	0.178	12	62	0.220	12	62	0.398
11:00 - 12:00	12	62	0.191	12	62	0.224	12	62	0.415
12:00 - 13:00	12	62	0.287	12	62	0.255	12	62	0.542
13:00 - 14:00	12	62	0.224	12	62	0.232	12	62	0.456
14:00 - 15:00	12	62	0.191	12	62	0.207	12	62	0.398
15:00 - 16:00	12	62	0.284	12	62	0.166	12	62	0.450
16:00 - 17:00	12	62	0.334	12	62	0.199	12	62	0.533
17:00 - 18:00	12	62	0.442	12	62	0.227	12	62	0.669
18:00 - 19:00	12	62	0.356	12	62	0.222	12	62	0.578
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.804			2.957			5.761

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.