

TRANSPORT ASSESSMENT



Bury STAR Academy

Spring Lane, Radcliffe, Bury

FOR

Department for Education

September 2023



Quality Management

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Author	Emma Grayshon
Reviewer	Chris Yarrow

The image shows two handwritten signatures in blue ink. The signature on the left is 'Emma Grayshon' and the signature on the right is 'C. Yarrow'.

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1. Introduction

- 1.1.1. Via Solutions has been appointed to prepare this Transport Assessment in support of a planning application for a new, secondary STAR academy school (referred to herein as 'the school') with a capacity of approximately 750 pupils, on land to the north of Spring Lane in Radcliffe, Bury, on behalf of the Department for Education (DfE). Figure 1 below shows the site location in relation to the local highway network.

FIGURE 1: SITE LOCATION



- 1.1.2. The DfE commissioned a consultant called Mott MacDonald to investigate the potential highway and transport implications of the proposals. The findings and recommendations from this earlier work have been considered carefully along with those gathered from pre-application discussions held more recently when preparing this transport assessment and actioned accordingly.

- 1.1.3. Consultations have been undertaken with Transport for Greater Manchester (TfGM) and Bury Council highways officers throughout the development of the site leading to the planning submission. In particular, advice has been sought around the proposed site access arrangements from Spring Lane and the proposed operational assessment methodology.
- 1.1.4. A trip generation and distribution technical note was prepared by VIA Solutions Ltd, which was agreed with TfGM as the basis for the operational assessment of the Spring Lane access. This modelling work would be taken forward by TfGM.
- 1.1.5. The advice and comments received in the discussions with TFGM and Bury Council have been taken into consideration in the preparation of the transport assessment and associated travel plan for the school.
- 1.1.6. This Transport Assessment considers such matters as traffic impact, access, sustainability, parking and servicing and presents the proposals in relation to current guidance and data. 2
- 1.1.7. A separate Travel Plan for the development proposals has also been prepared to accompany this Transport Assessment.
- 1.1.8. Both local and national transport policy have been reviewed in respect of the development. A review of road safety has been undertaken within this report. Sustainable transport accessibility has also been reviewed within the report. The development proposals have been explained and the impact on the highway network considered.

2. Transport Policy

- 2.1.1. When considering transport policy compliance for planning applications, the main thrust of local, regional and national policy is that new development should be conveniently accessible by a range of sustainable transport modes, including public transport, cycling and walking. Further details of the relevant policy documents are set out below.

2.2. NATIONAL PLANNING POLICY FRAMEWORK

- 2.2.1. The latest version of the National Planning Policy Framework (NPPF) was published by the Ministry of Housing, Communities and Local Government on 20 July 2021.

- 2.2.1. Paragraph 105 states that *"significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help reduce congestion and emissions and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision making."*

- 2.2.2. Paragraph 110 states that when considering planning applications, it should be ensured that:

- *Appropriate opportunities to promote sustainable transport can be - or have been - taken up, given the location and type of development;*
- *Safe and suitable access to the site can be achieved for all users;*
- *The design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code 46; and*

- Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.

2.2.3. Paragraph 111 states that *“Development should only be prevented or refused on highway grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe”*.

2.2.4. In relation to paragraph 111 developments should be in accordance with paragraph 112, which states:

- give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;
- Address the needs of people with disabilities and reduce mobility in relation to all modes of transport;
- Create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;
- Allow for the efficient delivery of goods, and access by service and emergency vehicles; and
- Be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.

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2.2.5. Paragraph 113 of the revised NPPF states that *“all developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed.”*

2.3. LOCAL PLANNING POLICY

GREATER MANCHESTER TRANSPORT STRATEGY 2040- AND FIVE-YEAR DELIVERY PLAN

2.3.1. The current Greater Manchester Transport Strategy 2040 was published in 2017 and updated in 2021 by the Greater Manchester Integrated Transport Authority and the Greater Manchester Local Enterprise Partnership. The document sets out the long-term ambition for transport to have ‘World-class connections that support long-term sustainable economic growth and access to opportunity for all’.

2.3.2. The transport strategy sets out how the transport system will:

- ✓ support sustainable economic growth;
- ✓ support the efficient and effective movement of people and goods;
- ✓ improve the quality of life for all by being integrated, affordable and reliable;
- ✓ protect the environment and supports the target to be net zero carbon by 2038; as well as improving air quality; and
- ✓ capitalises on new technology and innovation.

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2.3.3. The strategy has a ‘Right Mix Vision’ whereby by 2040, the strategy aims for 50% of all journeys in Greater Manchester to be made by walking, cycling and public transport.

2.3.4. The strategy will be supported by further interlinked strategies such as for electric vehicle charging and bus strategy among others.

- 2.3.5. The five-year delivery plan sets out all the projects to be delivered and developed to help achieve the objectives of the strategy. This includes ten Local Implementation Plans - one for each of the Greater Manchester's local authorities providing more detail on local transport priorities.
- 2.3.6. The draft Bury Local Strategy is currently in consultation and when published, will set out the strategy for Bury, in line with the Greater Manchester Transport Strategy 2040.

BURY COUNCIL PARKING STANDARDS

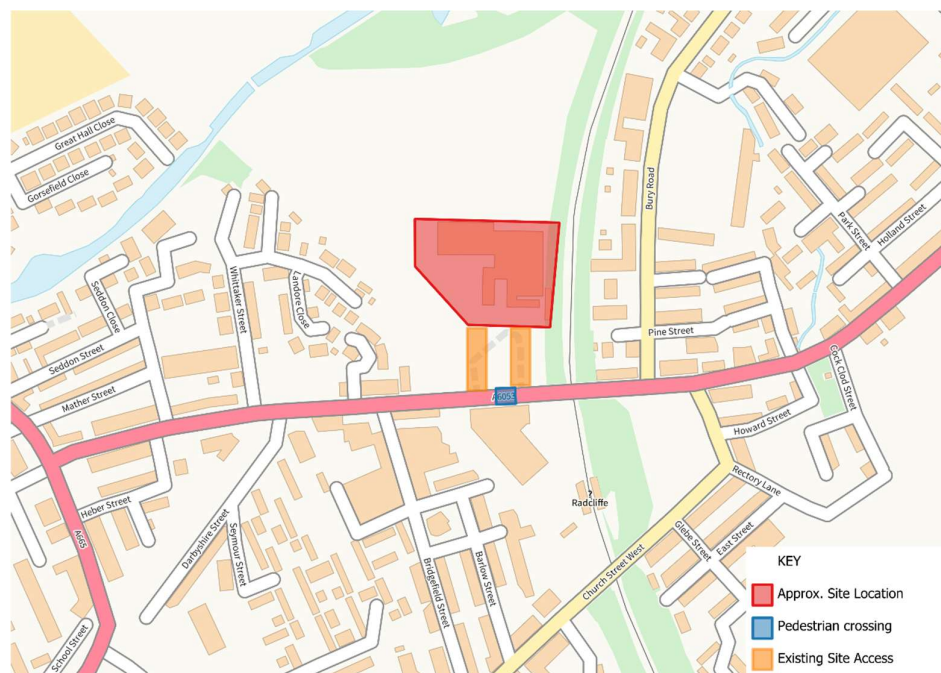
- 2.3.7. Parking for the proposed school will need to be provided in accordance with Bury Council Parking Standards, set out in Supplementary Planning Document Guidance Note 11, adopted in 2007. These parking standards have been adopted when considering parking provision at the proposed development.

3. Existing Situation

3.1. SITE DESCRIPTION

- 3.1.1. The school application site lies approximately 750m north-east of the centre of Radcliffe and 5km south-west of the centre of Bury. Figure 2 below shows the location of the site.

FIGURE 2 SITE ACCESS LOCATION PLAN



- 3.1.2. The application site is bound to the north by the Manchester, Bolton and Bury Canal (disused) and to the east by the Manchester Metrolink tram line. The site is bounded to the west by a public right of way, locally known as the 'Banana Path', which runs between Spring Lane and the canal. A6053 Spring Lane forms the southern boundary of the site, from which the existing site uses take access. To the southern kerb line of Spring Lane is the Radcliffe Park and Ride site.

- 3.1.3. The existing site is occupied by the Spring Lane Pupil Referral Unit (PRU) and the Radcliffe Leisure Centre. The PRU offers 89 pupil places. The school and leisure centre take vehicular access from Spring Lane from two adjacent priority T-junctions with Spring Lane.
- 3.1.4. Both the leisure centre and the PRU will be relocated within the Bury area.

3.2. HIGHWAY NETWORK

- 3.2.1. Access to the existing site is gained from Spring Lane via two, adjacent simple priority T-junctions, 40 metres apart. In the vicinity of the site accesses, A6053 Spring Lane is a 7.3m two-way single carriageway road, which is subject to a 30-mph speed limit. There are pedestrian footways provided to either kerb line, and street lighting is provided to an acceptable standard.
- 3.2.2. The westernmost T-junction offers access to the existing PRU. This is a gated access approximately 5m in width and with 6m radii. The junction provides direct two-way access to the PRU via a 5m wide access road heading north-west into the site. 8
- 3.2.3. The easternmost T-junction offers two-way access directly into the car park for the leisure centre. This is also gated and is approximately 4.5m wide, with 10.5m radii. There is a separate gated pedestrian access to the west of the vehicular access.
- 3.2.4. Between the two access points, there is a signalised pedestrian crossing of Spring Lane, allowing access from the school and leisure centre to the Park and Ride (P&R) facility and residential areas located to the south of Spring Lane.

- 3.2.5. Vehicular access to the P&R is provided to the west of the existing school access, and 45 metres from the signalised crossing. The access takes the form of a simple priority junction and operates one-way, entry only. The vehicular exit from the P&R is located approximately 80 metres to the east, immediately adjacent the Metrolink rail line overbridge and 20 metres east of the leisure centre access.
- 3.2.6. Spring Lane is the main route between Radcliffe and the A56, 2.5km to the east, passing through residential areas, a hospital and industrial areas. The A56 heads north into Bury town centre and south to join the M60 at junction 12 and beyond to Prestwich and Manchester city centre. The M60 forms the orbital strategic route around Manchester and offers access to the strategic road network and to destinations across the north of England.

3.3. PEDESTRIANS AND CYCLISTS

WALKING

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- 3.3.1. The national policy relating to transport and development is set out in the NPPF, however this does not provide guidance on desirable maximum walking distances from new developments. Reference has been made to "The Guidelines for Providing for Journeys on Foot" (Institution of Highways & Transportation, May 2000), which describe best practice in planning and providing for pedestrians within the UK policy and legislative framework. This allows an assessment of the sites compliance with policy guidance on recommended walking distances to local services for site user (as provided in Table 1 below).

TABLE 1. PREFERRED MAXIMUM WALKING DISTANCES

	Town Centre	Commuting / School / Sightseeing	Elsewhere
Desirable	200m	500m	400m
Acceptable	400m	1000m	800m
Preferred Maximum	800m	2000m	1200m

Source: Providing for Journeys on Foot (IHT, 2000)

3.3.2. Some of the key facilities within the preferred maximum walking distances are summarised in the Table 2 below. The walking distances are measured from the signalised pedestrian crossing, between the existing site accesses.

TABLE 2. FACILITIES LOCATED WITHIN PREFERRED MAXIMUM WALKING DISTANCES

	Facilities
400m	Bus stops, Radcliffe P&R and tram, food and non-food retail, leisure, residential areas.
800m	Radcliffe centre, bus stops, food and non-food retail, leisure, residential areas.

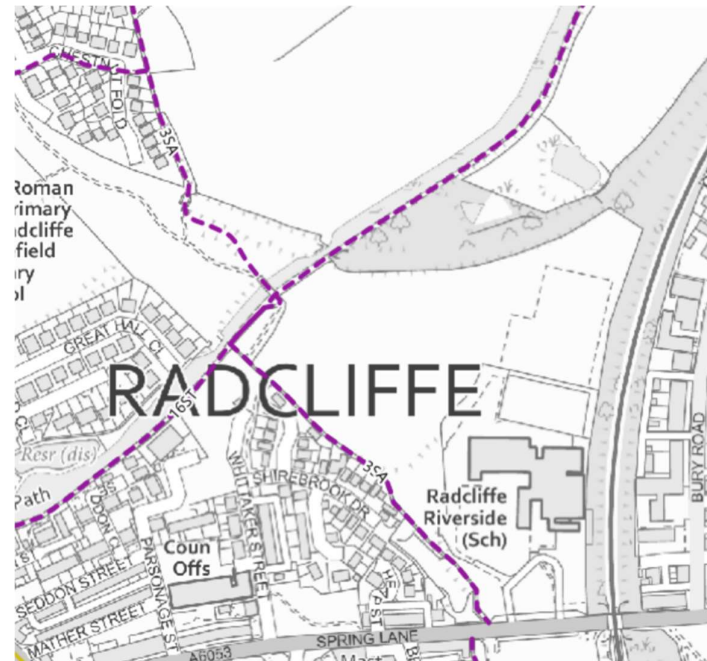
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3.3.3. From the site, there are wide pedestrian footways along both kerb lines of Spring Lane, in both directions, beyond the railway bridge to the east and the residential areas to the west. Dropped crossings are provided to either radius at each of the existing site accesses. A signalised pedestrian crossing is provided equidistant both existing accesses and gives access to the P&R site opposite. The signalised crossing benefits from dropped crossings and tactile paving.

3.3.4. A dropped crossing with tactile paving is in place for pedestrians to cross the P&R entry. At the P&R exit, exiting vehicles are split into left and right turning traffic by means of a splitter island. A dropped crossing with tactile paving is provided across the exit, including across the splitter island.

3.3.5. To the western boundary of the site is a public right of way (Ref. 35A), named locally as the 'Banana Path'. This leisure route passes from Spring Lane, along the western boundary of the site to the canal as shown in Figure 3 below.

FIGURE 3 – EXTRACT FROM BURY PROW MAP (BURY COUNCIL, JULY 2023)



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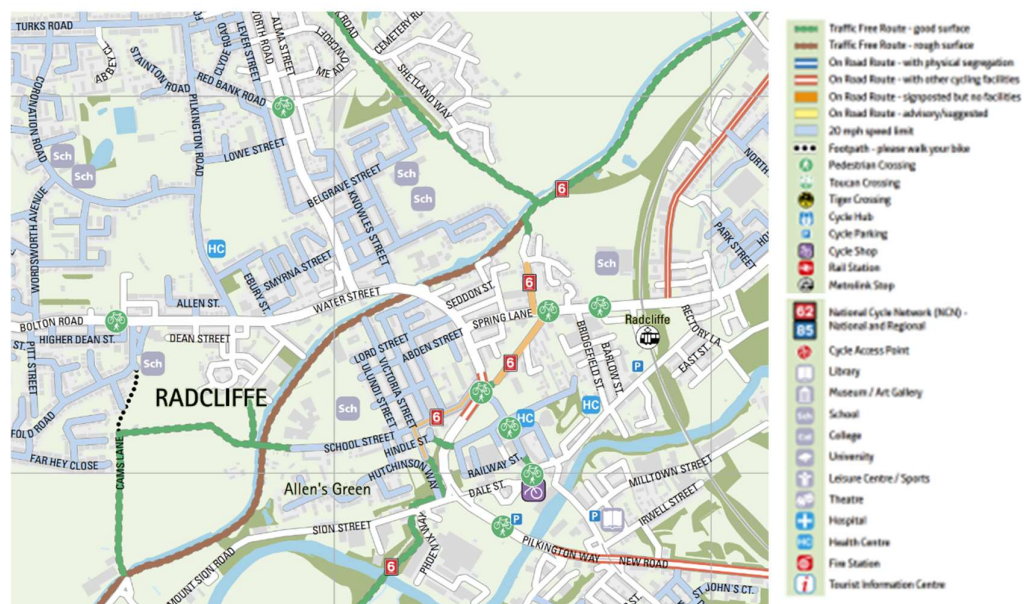
3.3.6. In summary, the existing pedestrian infrastructure in the vicinity of the site is of a good standard. Therefore, there is excellent potential for pupils, staff and visitors to undertake journeys to the site on foot.

CYCLING

3.3.7. National and Local policy encourage sustainable development and a shift away from private car use, however, there is no specific recommended maximum cycle distances for access to services/leisure facilities from new developments stated within the NPPF or local planning policy.

- 3.3.8. It is noted that the distances people will be willing to travel on a bicycle will be highly variable depending on the type of development, site users and age profile as well as the perception of personal safety in the local environment. However, Local Transport Note 2/08 (published by the Department for Transport) does provide a useful reference point; it indicates that an acceptable distance for general trips by cycle is considered to be up to 5km, but it also acknowledges that this may be slightly longer (up to 8km) for those commuting to employment uses by cycle.
- 3.3.9. All local facilities and services as detailed in Table 2 above, can be accessed readily by bicycle on 30mph roads.
- 3.3.10. The local cycle network within the vicinity of the site is shown in Figure 4 below.

FIGURE 4 – EXTRACT FROM BURY CYCLE MAP, TFGM, 2023



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- 3.3.11. The cycle map indicates that there are on road routes, readily accessible from the site that can be used by staff and students to access the site from surrounding residential areas.

- 3.3.12. In consideration of the above, it is considered that there are practical and convenient links available to and from the proposed development offering the potential for pupils, staff and visitors to walk or cycle to the site.

3.4. PUBLIC TRANSPORT

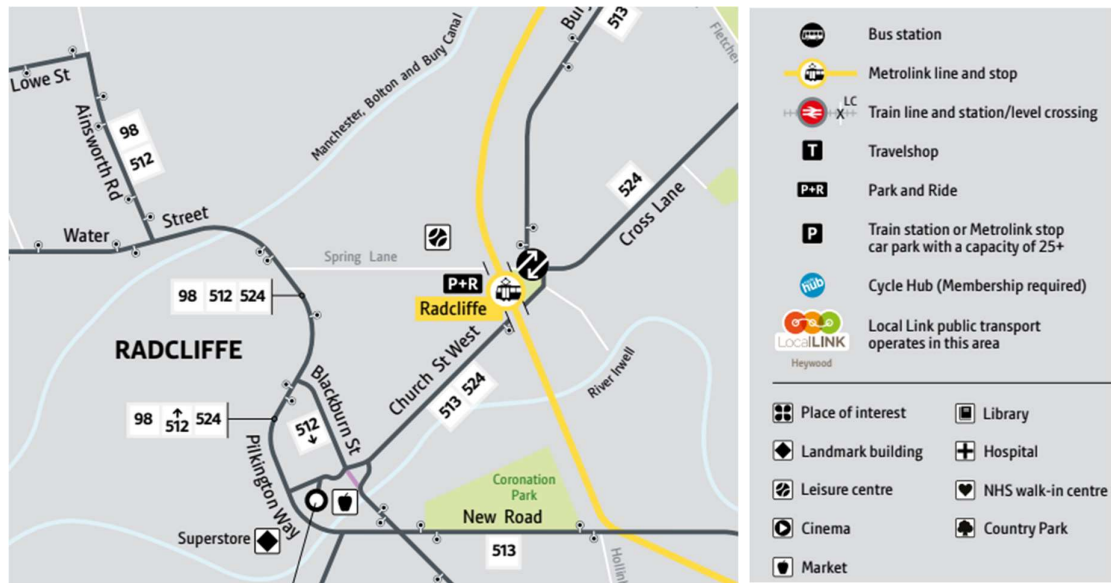
GREATER MANCHESTER ACCESSIBILITY LEVELS (GMAL)

- 3.4.1. Great Manchester Accessibility Levels (GMAL) model was developed by Transport for Greater Manchester as a method of assessing the accessibility of the public transport provision to a location. The model is similar to that employed by Transport for London and takes into account walking time and service availability.
- 3.4.2. The resulting GMAL index is categorised from 1 to 8; a score of 8 indicates the highest level of accessibility. The model indicates that the site is located within an area with a GMAL rating of 5. This indicates a high level of accessibility, consistent with the public transport provision adjacent to the site, as described in the following sections.
- 3.4.3. The TfGM public transport map for Bury in the vicinity of the site, is reproduced overleaf and the provision indicated on the map, discussed in the following sections.

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FIGURE 5 – EXTRACT FROM BURY PUBLIC TRANSPORT MAP, TFGM, 2023

BUSES



3.4.4. There are a

number of bus stops provided along Spring Lane, the closest being approximately 20m east of the leisure centre access, directly beneath the tram railway overbridge. A flag and pole, bus cage road markings and timetable boards are provided at both stops. These stops are not shown on Figure 5 as they serve school bus services only.

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3.4.5. Bus stops are also provided approximately 170m to the east on Bury Road; a flag and pole, bus cage road markings and timetable boards are provided at both stops. The bus stops on Bury Road offer a frequent service within a short walk of the site.

3.4.6. The locations of bus stops are indicated on Figure 1. The table overleaf provides a summary of bus routes in the area.

TABLE 3. SUMMARY OF BUS ROUTES

Route No	Route Summary	Frequency		
		Monday to Friday	Saturday	Sunday
From Spring Lane at Radcliffe Metrolink stop				
886	Tottington - Walshaw - Starling - Radcliffe - Warth Fold	2 per day (School Service)	-	-
888	Bradley Fold - Bolton Road Estate - Radcliffe – Fishpool	2 per day (School Service)	-	-
894	Bradley Fold - Radcliffe - Hollins - Unsworth - Heaton Park	2 per day (School Service)	-	-
899	Starling - Seddons Farm Estate - Radcliffe - Warth Fold	2 per day (School Service)	-	-
From Bury Road				
513	Bury - Whitefield - Farnworth - Stand - Radcliffe circular	60 minutes	60 minutes	120 minutes

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METROLINK

- 3.4.7. The Radcliffe Metrolink tram stop is located immediately opposite the leisure centre and is accessed by pedestrians from the P&R facility via the vehicular exit junction. The Metrolink is serviced by Green Line and Yellow Line services, offering connections to Bury, Altrincham and Manchester City Centre (Piccadilly). The service runs at approximately 12 minutes in each direction.
- 3.4.8. The proposed development is considered to be well served by public transport, utilising stops that are well within the desirable and acceptable walking distances of 400m and 800m respectively, given in 'Providing for Journeys on Foot' and having two mainline stations and a tram station within a reasonable bus or cycling distance.

3.5. THE GREATER MANCHESTER BEE NETWORK

3.5.1. The Transport for Greater Manchester Bee Network is set to transform the transport network. It will offer a similar high volume – low fare, London-style public transport network, with integrated ticketing and fares systems for public transport, linked up by high quality walking and cycle infrastructure with 1,800 miles of safe routes and 2,400 new crossings. Bee Network hire bikes and e-bikes are already available in areas of Manchester, Salford and Trafford.

3.5.2. There are two planned improvements as part of the Bee Network (cycling, walking and wheeling) and these are:

- ✦ A new bridge and shared path for pedestrians and cyclists to cross the River Irwell to the south of the site and access the Radcliffe Tram stop. This will of course facilitate better access to the proposed school from the south.
- ✦ Improved cycle parking at Radcliffe tram stop.

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3.5.3. It is considered that as the Bee Network is implemented, this will reinforce the existing accessibility of the existing site and promote sustainable trips to the proposed school.

3.6. INJURY COLLISION RECORDS

3.6.1. A review of personal injury collisions for the five-year period from January 2017 - December 2021 has been carried out using the www.crashmap.co.uk website. The study area covers the A6053 Spring Lane extending for 100 metres in either direction from the existing leisure centre access,

3.6.2. This shows there has been one incident with the study period. The incident occurred in 2019, involved two cars and was considered slight in severity. One car was turning right out into Spring Lane and collided with another vehicle within the main carriageway. The incident report is presented in Appendix A.

- 3.6.3. In summary, the review has not highlighted any trends or safety concerns within the vicinity of the proposed development.

3.7. TRAFFIC SURVEYS

- 3.7.1. Junction surveys were undertaken at the following three junctions on Thursday 8th June 2023, between 0700 and 1000 and between 1400 and 1900 hours;

- ✦ J1 Spring Lane / Park and Ride Access and Exit
- ✦ J2 Spring Lane /Bury Road; and
- ✦ J3 Spring Lane / Rectory Lane.

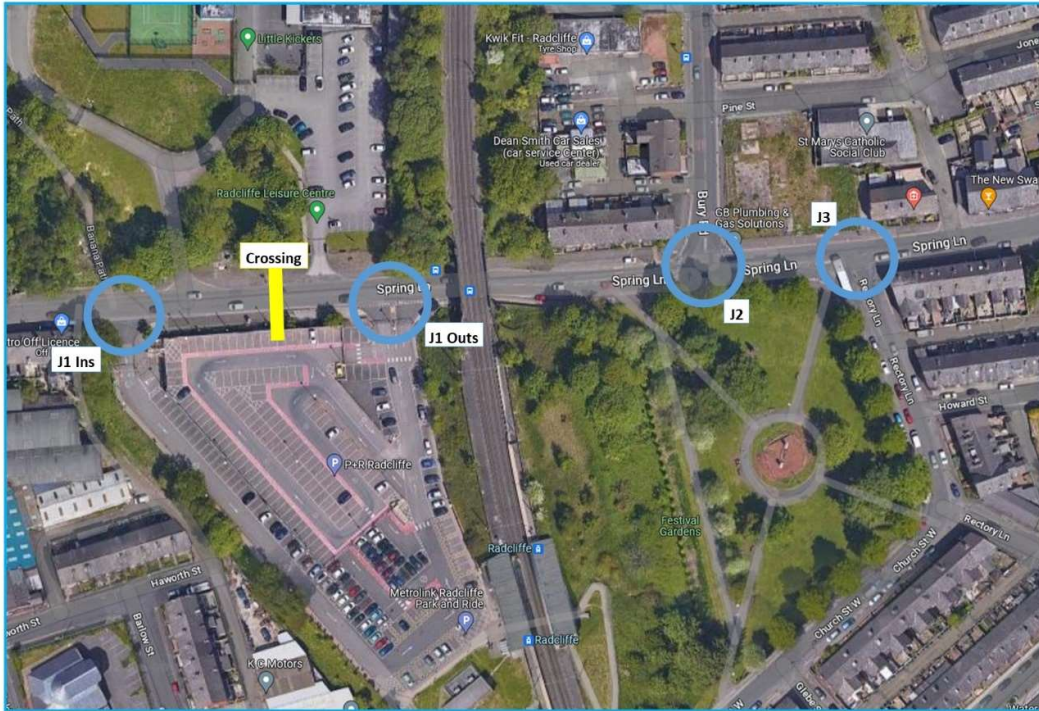
- 3.7.2. The traffic surveys provided fully classified turning movements and queue observations over the survey period.

- 3.7.3. A pedestrian survey was undertaken at the signalised crossing of Spring Lane between the two existing site accesses and park and ride access / egress points. The survey was undertaken on Thursday 8th June 2023, between 0700 and 1000 and between 1400 and 1900 hours and noted both the numbers of pedestrians using the crossing but also those using the northern and southern footways along Spring Lane.

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- 3.7.4. The results of the surveys are provided in Appendices B and C and the locations of the surveys shown on Figure 6 below. The surveys cover the periods when pupils are dropped off and collected from the school.

FIGURE 6: SURVEY LOCATIONS



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3.7.5. In summary, the travel surveys indicate that at:

- ✦ Junction 1 (Park and Ride access and egress) weekday two-way flows on Spring Lane are recorded to be 1118 vph in the AM peak (0730 to 0830) and 1008 vph in the PM peak (1645 to 1745).
- ✦ Spring Lane / Bury Road, weekday two-way flows at the junction of Spring Lane and Bury Road are recorded to be 1581 vph in the AM peak (0730 to 0830) and 1559 vph in the PM peak (1545 to 1645).
- ✦ Spring Lane / Rectory Lane, weekday two-way flows at the junction of Spring Lane and Rectory Lane are recorded to be 1288 vph in the AM peak (0745 to 0845) and 1383 vph in the PM peak (1615 to 1715).

3.7.6. The surveys suggest that the afternoon peak period for traffic flows in the highway network does not necessarily coincide with the afternoon peak period for the school.

4. Development Proposals

4.1. PROPOSED DEVELOPMENT

- 4.1.1. The proposed development consists of a new, secondary STAR academy school (referred to herein as 'the school') with a capacity of approximately 750 pupils, on land to the north of Spring Lane in Radcliffe, Bury, on behalf of the Department for Education (DfE). The proposed site layout is indicated on the drawings contained within Appendix D.
- 4.1.2. The plans are for a two-block school building, an artificial grass football pitch and 3G pitch with associated landscaping and a staff car park. There will be approximately 80 FTE staff members when the school is fully operational.

4.2. VEHICULAR SITE ACCESS

- 4.2.1. The vehicular access to the site will be taken from a single point from Spring Lane, replacing the existing access for the PRU. The existing access into the sports centre will be removed and stopped up. The access proposals for the site are indicated on the drawings contained within Appendix E.
- 4.2.2. The site access road will form a simple priority junction with Spring Lane, with a 7.3m wide two-way carriageway, street lighting and footways to either kerbline. To the eastern kerbline of the access road, there will be a segregated 3 metre bi-directional cycleway and a 2 metre footway whilst on the western kerbline there will be a 2 metre footway only. These will tie into existing footways on the northern kerbline of Spring Lane and provide continuous footways through the site.

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- 4.2.3. Approximately 70 metres to the north of the main site access the site access road will meet a simple priority junction giving access to the proposed pick up and drop off area. This is discussed in more detail in Section 4.4.
- 4.2.4. 160 metres to the north of the main site access, the site access road will meet a 28m ICD roundabout, the eastern arm of which forms the main school access. The access road is 7.3m wide and continues for a further 20 metres whereupon the main school access gates are located. The automated vehicle gates will be controlled from the school reception and give access to the staff and visitor parking areas.
- 4.2.5. The provision of the roundabout enables non-school related traffic to turn and return to Spring Lane rather than to approach the school gates.

4.3. PEDESTRIANS AND CYCLE ACCESS

- 4.3.1. The pedestrian and cycle access to the development will be from the proposed access road detailed above. To the eastern kerbline of the access road, there will be a segregated 3 metre bi-directional cycleway and a 2 metre footway, whilst on the western kerbline there will be a 2 metre footway only. These will tie into existing footways on the northern kerbline of Spring Lane and provide continuous footways through the site.
- 4.3.2. The 5 metre wide pedestrian and cycle link will continue from the roundabout towards the school parallel to the main school access. Pedestrians and cyclists will enter the school via a separate gate to vehicles. This continuous link will provide access to the dedicated cycle parking area.

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- 4.3.3. The existing pelican crossing on Spring Lane will be widened and upgraded to a Toucan crossing as part of the development. It is proposed that the segregated footway / cycleway leading from the school site, will revert to shared cycle-footway in the vicinity of the crossing to allow both pedestrians and cyclists to use the crossing safely. To the southern kerbline of Spring Lane, the existing footway will be upgraded to a shared cycle-footway to allow cyclists to use the crossing and to facilitate cycle access into the P&R site.
- 4.3.4. This arrangement at the crossing replicates the layout provided at the toucan crossing of Spring Lane at Darbyshire Street, further west.
- 4.3.5. The proposed pedestrian and cycle access arrangements are shown on the drawings in Appendix E.

4.4. INTERNAL CIRCULATION AND PICK UP - DROP OFF AREAS

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- 4.4.1. The internal circulation within the school site has been designed to facilitate the staff and pupil arrivals in an efficient manner. The internal circulation design provides:
- ✦ Coach/ minibus drop off and pick up layby, for 2 no. coaches is provided close to the school entrance;
 - ✦ An SEN drop off layby which will also serve as an area for deliveries to be made;
 - ✦ A separate refuse layby close to the proposed bin store; and
 - ✦ Parking for staff and visitors.
- 4.4.2. A further pupil drop-off and pick-up area has been located in a dedicated loop, circulating clockwise, 70 metres to the north of Spring Lane. This provides 14 drop-off spaces to be used by students arriving at school.

- 4.4.3. The provision of a separate pick up and drop off loop, ensures that all drop-off, pick-up and waiting happens close to the school (but out with the school boundary) and not on the highway network beyond the site access onto Spring Lane.

4.5. PARKING PROVISION

4.5.1. Parking for the proposed temporary and permanent schools will need to be provided in accordance with Bury Council Parking Standards, set out in Supplementary Planning Document Guidance Note 11, adopted in 2007. Table 2 of the parking standards provides parking thresholds for schools, based on the number of class rooms / teaching spaces. The parking standards permit:

- ✦ A maximum of 1.5 spaces per classroom / teaching space .
- ✦ A minimum of 6% of bays or 3 bays (whichever is greater) will need to be accessible.
- ✦ Motorcycle parking at a minimum of two spaces or 1 per 40 full time staff equivalent.
- ✦ Cycle parking at a minimum of 1 per 10 FTE staff plus 1 per 10 pupils.
- ✦ 1 space per 40 staff for Powered Two Wheeler or Three Wheeler motor vehicles.

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4.5.2. There are 44 individual teaching spaces within the proposed school, including the library, sports halls and gymnasiums, and music rooms. These are split across 12 on the ground floor, 14 on the first floor and 18 on the second floor.

PROPOSED PARKING ARRANGEMENTS

4.5.3. The parking provision on site has been indicated on the proposed layout drawings in Appendix D.

4.5.4. The drawings indicate that the following parking will be provided in line with the Department for Education specification for the proposed school:

- ✓ 97 vehicular parking spaces; including
 - 6 accessible parking spaces (6%);
 - 6 Electric Vehicle Charging Points (6%); and
- ✓ 20 cycle stands are proposed (Sheffield hoops) which provides parking for 40 cycles.
- ✓ 1 space per 40 staff for Powered Two Wheeler vehicle or Three-wheel motor vehicle.

4.5.5. The cycle parking is located in a prominent position directly outside the main entrance to the building. The demand for and use of cycle parking will be monitored through the school travel plan once the school is operational; there is adequate space within the allocated cycle parking area

4.5.6. As is the case with a significant number of schools, community use of the sports facilities is planned for outside of school hours. It is understood that the outdoor pitches, sports hall and activity studio will be used and accessed through a community entrance/reception. The main school staff parking areas will be opened up for this use as demand.

4.5.7. The parking proposed for the development is considered to be appropriate for the proposed operational and community requirements of the site.

4.5.8. The transport assessment submitted in support of the Salford Star Academy planning application (21/78560/FUL) used the Annex C of the Publication Local Plan (2020) parking standard, proposing 2 spaces per teaching space (72 spaces) plus some further operational parking (up to 88 spaces) was agreed during the pre-planning discussions to avoid impact on the surrounding highway network. The proposed provision at the Bury Star Academy will be similar to this comparator site.

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4.6. SERVICING

- 4.6.1. Access to the site for service vehicles, emergency vehicles and delivery vehicles (among others) will be taken from the main school access from the proposed roundabout junction.
- 4.6.2. The internal layout of the site will accommodate service, refuse vehicles and emergency vehicles and all vehicles will be able to enter and exit to and from the public highway in forward gear.
- 4.6.3. The drawings in Appendix F show how a refuse collection vehicle and fire tender access and turn within the school site.

5. Development Assessment

5.1. METHODOLOGY

- 5.1.1. A technical note was submitted by VIA Solutions Ltd to TfGM in July 2023 outlining the base traffic flows, committed development, trip generation and traffic distribution for the proposed school. This was based on the methodology proposed in transport assessment scoping note (the 'Scoping Note'), prepared by Mott Macdonald in June 2022 for agreement with Bury Council and Transport for Greater Manchester (TfGM).
- 5.1.2. The agreed methodology from the technical note is presented below. The operational assessment of specific junctions in the study area is presented in section 5.5.

5.2. BASE TRAFFIC FLOWS

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- 5.2.1. Manual Classified Counts (MCC) were undertaken on Thursday 8th June 2023 as presented in Section 3.6 of this report. The following junctions were surveyed:
- ✦ Junction 1 – A6053 Spring Lane / Park and Ride entrance and exit;
 - ✦ Junction 2 – A6053 Spring Lane / Bury Road; and
 - ✦ Junction 3 – A6053 Spring Lane / Rectory Lane.
- 5.2.2. The traffic count data for the 2023 AM (0800-0900) and PM (1500-1600) peak hours are provided on Figures 7 and 8 in Appendix G. These peak hours reflect the peak trip generation of the school.

TRAFFIC GROWTH

5.2.3. TEMPro 7.2c was used to determine the National Traffic Model (NTM) factors between 2023 (traffic survey collection date) and the future opening year of 2025 and the assessment year of 2030. The following weekday peak hour factors are shown in the table below.

TABLE 4 – TRAFFIC GROWTH FACTORS

	AM Peak (0800-0900)	PM Peak (1500-1600)
2023 to 2025	1.0154	1.015
2025 to 2030	1.0532	1.0519

5.2.4. These growth factors were applied to the surveyed flows to give the estimated traffic flows in 2025 and 2030. The traffic flow diagrams for the 2025 and 2030 AM (0800-0900) and PM (1500-1600) peak hours, are provided on Figures 9 to 12 in Appendix G.

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5.3. TRAFFIC DISTRIBUTION

5.3.1. The proposed trip distribution has been calculated using the population estimates for each MSOA (Middle Super Output Area) level areas in the Census 2011, located out with a 1.5km catchment of the proposed school site. This assumes that all staff and pupils travelling to the school from within the 1.5km radius are more likely to travel to the school by a means other than car. Whilst this might not be true in a small number of cases, this is a robust approximation of the trips generated on the network close to the proposed site.

5.3.2. The population estimate for each MSOA was used to estimate the percentage of the proposed 750 pupils who would originate in that MSOA. Reference was made to an internet based route finder software to assign these trips to a likely route to the proposed school.

- 5.3.3. The distribution calculation is included at Appendix H. The final traffic distribution diagram is shown in Figure 13 in Appendix H.

COMMITTED DEVELOPMENT

- 5.3.4. Discussions with Bury Council have identified the following committed development, that has the benefit of planning permission:

✦ East Lancs Paper Mill, Cross Lane, Radcliffe – 440 dwellings

- 5.3.5. The traffic generation for this committed development has been taken from the transport assessment associated with the development, prepared by WYG, for Homes England in 2018.

- 5.3.6. The trip generation and distribution associated with the committed development for the AM (0800-0900) and PM (1500-1600) peak hours are shown in Figures 14 and 15 in Appendix I.

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- 5.3.7. The combined 2025 and 2030 base traffic and committed development trip generation and distribution for the AM (0800-0900) and PM (1500-1600) peak hours, are shown in Figures 16 to 19 in Appendix I.

5.4. TRAFFIC GENERATION

EXISTING SITES TRIP GENERATION – SCHOOL AND LEISURE CENTRE

- 5.4.1. The existing school and leisure centre are accessed from two entrances on Spring Lane, with the significant proportion of parking accessed from the eastern access. The leisure centre site parking spaces are located to the front of the building, accessed from the eastern priority access. A further 6 spaces (including 3 accessible spaces) are located to the north west corner of the existing site, to the rear of the PRU, for staff use.

5.4.2. The trip generation of the existing school and leisure centre was presented in Table 3.1 of the scoping note. The scoping note presented the findings of an interrogation of the TRICS database for the existing uses of the site as a school, and a leisure centre with an estimated GFA of 2300m². Table 5 overleaf shows the estimated trip generation for the existing site, using data taken from the scoping note, table 3.1.

TABLE 5 – EXISTING SITE TRIP GENERATION

	AM Peak (0800-0900)			PM Peak (1500-1600)		
	Arr	Dep	Total	Arr	Dep	Total
Existing PRU Trip Generation						
Veh Trip rate per pupil	0.152	0.12	0.272	0.055	0.096	0.151
Vehicular trips	12	9	21	6	9	15
Existing 2300m² Leisure Centre						
Veh trip rate per 100m²	0.744	0.398	1.142	0.807	0.585	1.392
Vehicular Trips	15	15	30	17	12	29
Total Vehicular Trips	27	14	51	23	21	44

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5.4.3. The scoping note concluded that the existing site could generate 51 trips in the AM peak and 44 trips in the PM school peak.

PROPOSED DEVELOPMENT TRIP GENERATION

5.4.4. The trip generation of the proposed school was estimated in Section 3.3 of the Scoping Note.

5.4.5. Table 3.1 of the Scoping Note shows trip rates and expected trip generation for the school site during the morning and afternoon peak periods for school traffic generation.

- 5.4.6. Revised trip rates have been gathered from the TRICS database to predict the traffic generation for the proposed 750-pupil academy. The trip rates and traffic generations calculated are as shown in the table below. All trip rates are per 1 pupil and reflect the vehicular trips generated by both the staff and pupils to the school. The TRICS output is included at Appendix J.

TABLE 6 – PROPOSED SCHOOL TRIP GENERATION

	AM Peak (0800-0900)			PM Peak (1500-1600)		
	Arr	Dep	Total	Arr	Dep	Total
Veh Trip rate per pupil	0.164	0.126	0.290	0.06	0.101	0.161
Vehicular trips	123	95	218	45	76	121

- 5.4.7. The number of vehicle trips generated by the proposed development is 218 and 113 two-way movements in the AM and PM peak periods respectively.

- 5.4.8. The existing site trip generation from Table 5 can be 'netted off' against the proposed trip generation for the academy in Table 6, to calculate the 'new' development trips generated onto the highway network. The final trip generation for the academy is shown in Table 7 below.

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TABLE 7 –PROPOSED SCHOOL – 'NEW' TRIP GENERATION

	AM Peak (0800-0900)			PM Peak (1500-1600)		
	Arr	Dep	Total	Arr	Dep	Total
Existing Site Trip Generation						
Vehicular trips	27	14	51	23	21	44
Proposed Academy Trip Generation						
Vehicular Trips	123	95	218	45	76	121
New Trips Generated by the Proposed Academy						
Total Vehicular Trips	96	81	167	22	55	77

- 5.4.9. The proposed STAR Academy might be expected to generate 218 and 121 two-way trips at the new Spring Lane junction but 167 and 77 two-way trips onto the wider highway network in the AM and PM peak periods respectively.
- 5.4.10. The trip generation in Tables 6 and 7 have been assigned to the network as per the proposed traffic distribution. The resulting traffic flow diagrams for the development traffic flows, in the AM (0800-0900) and PM (1500-1600) peak hours, are shown in Figures 20 and 21 in Appendix J.
- 5.4.11. Final traffic flow diagram for the 2025 and 2030 base plus committed development plus development traffic scenarios in the AM (0800-0900) and PM (1500-1600) peak hours, are shown in Figures 22 and 25 in Appendix J.
- 5.4.12. TfGM have agreed the VIA technical note and hence the methodology and calculations above.

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5.5. OPERATIONAL ASSESSMENT OF HIGHWAY NETWORK

- 5.5.1. Operational assessment of the following junctions was undertaken in the morning peak hour of 0800 – 0900 and afternoon peak hour of 15:00 – 16:00:
- ✦ Site Access – Spring Lane / Access Road;
 - ✦ Junction 2 – A6053 Spring Lane / Bury Road; and
 - ✦ Junction 3 – A6053 Spring Lane / Rectory Lane.
- 5.5.2. The peak hours correlate with the worst-case development traffic generation which is the pupil drop off and pick up period.
- 5.5.3. All junctions have been modelled using the PICADY and ARCADY modules within the Junctions 9 software. The results are shown in the following sections and the full results are provided within Appendices K to N.

5.5.4. The junction of Spring Lane and Bridgefield Road, to the west of the site access road junction with Spring Lane, has not been assessed at this stage. The methodology set out above, distributed the net development trip generation only to junctions out with of the site access road junction with Spring Lane. Thus pass-by trips were not included in any calculation of trip generation and therefore the trip generation applied is considered to be very robust. It is not expected that the trip generation presented in figures 20 and 21 at Spring Lane / Bridgefield Road will be realised, and is expected to fall below the analysis threshold of 30 additional two-way trips.

SITE ACCESS JUNCTION WITH SPRING LANE

5.5.5. This junction has been modelled using the PICADY module within the Junctions 9 software. The results are shown in the following section and the full results are provided within Appendix K.

TABLE 8: SPRING LANE / SITE ACCESS JUNCTION ANALYSIS (BASE AND FUTURE SCENARIOS)

Approach	2025 Opening Year				2030 Future Year			
	0800-0900		1500-1600		0800-0900		1500-1600	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
Base Traffic								
Site Access (Left)	0.02	0.0	0.02	0.0	0.02	0.0	0.02	0.0
Site Access (Right)	0.02	0.0	0.03	0.0	0.02	0.0	0.03	0.0
Spring Lane	0.04	0.1	0.04	0.1	0.04	0.1	0.04	0.1
Base plus Committed Development Traffic								
Site Access (Left)	0.02	0.0	0.02	0.0	0.02	0.0	0.03	0.0
Site Access (Right)	0.02	0.0	0.03	0.0	0.02	0.0	0.03	0.0
Spring Lane	0.04	0.1	0.04	0.1	0.05	0.1	0.04	0.1
Base plus Committed plus Development Traffic								
Site Access (Left)	0.10	0.1	0.06	0.1	0.10	0.1	0.06	0.1
Site Access (Right)	0.12	0.1	0.07	0.1	0.13	0.1	0.08	0.1
Spring Lane	0.16	0.4	0.04	0.0	0.17	0.4	0.04	0.1

- 5.5.6. A Ratio of Flow to Capacity value below 0.85 indicates that a junction or arm operates within its predicted capacity. An RFC value between 0.85 and 1.00 indicates that there may be occasions during the period modelled when queues will develop and delays will occur. An RFC value greater than 1.00 indicates that the junction or arm operates beyond its theoretical capacity.

5.5.7. Table 8 demonstrates that the junction operates within capacity in the robust 2025 design scenario with a maximum RFC of 0.17 and therefore can accommodate the proposed development.

JUNCTION 2: SPRING LANE / BURY ROAD

5.5.8. This junction has been modelled using the ARCADY module within the Junctions 9 software. The results are shown in the following section and the full results are provided within Appendix M.

TABLE 9: JUNCTION 2 SPRING LANE / BURY ROAD JUNCTION ANALYSIS (CURRENT SCENARIOS)

Approach	2023 Current Scenario			
	0800-0900		1500-1600	
	Max RFC	Max Queue	Max RFC	Max Queue
Spring Lane (W)	0.84	4.8	0.61	1.6
Bury Road	0.84	4.8	0.75	2.9
Spring Lane (E)	0.47	0.9	0.51	1.0

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Table 9 above shows the junction currently works within capacity however the maximum RFC is 0.84 in the AM peak meaning any additional traffic will likely cause delays.

TABLE 10: JUNCTION 2 SPRING LANE / BURY ROAD JUNCTION ANALYSIS (FUTURE SCENARIOS)

Approach	2025 Opening Year				2030 Future Year			
	0800-0900		1500-1600		0800-0900		1500-1600	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
Base Traffic								
Spring Lane (W)	0.86	5.4	0.62	1.6	0.90	7.1	0.65	1.8
Bury Road	0.86	5.3	0.77	3.2	0.89	7.0	0.8	3.2
Spring Lane (E)	0.48	0.9	0.52	1.1	0.50	1.0	0.54	1.2
Base plus Committed Development Traffic								
Spring Lane (W)	0.87	5.9	0.65	1.8	0.91	8.0	0.68	2.0
Bury Road	0.86	5.6	0.78	3.4	0.90	7.4	0.82	4.2
Spring Lane (E)	0.50	1.0	0.53	1.1	0.53	1.1	0.55	1.2
Base plus Committed plus Development Traffic								
Spring Lane (W)	0.95	11.7	0.71	2.4	0.99	17.6	0.74	2.7
Bury Road	0.95	11.0	0.82	4.2	0.98	15.8	0.86	5.3
Spring Lane (E)	0.56	1.2	0.55	1.2	0.58	1.4	0.57	1.3

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5.5.9. A Ratio of Flow to Capacity value below 0.85 indicates that a junction or arm operates within its predicted capacity. An RFC value between 0.85 and 1.00 indicates that there may be occasions during the period modelled when queues will develop and delays will occur. An RFC value greater than 1.00 indicates that the junction or arm operates beyond its theoretical capacity.

5.5.10. Table 10 demonstrates that the maximum RFC is over 0.85 (but still less than 1.00) in all scenarios including the base scenario, meaning delays will occur regardless of additional traffic from the committed and proposed developments. While the committed and proposed developments do slightly increase these the RFC (no more than 0.13) the impact is minimal in comparison to the impact of both existing traffic and future year traffic in the base scenario.

JUNCTION 3: SPRING LANE / RECTORY LANE

5.5.11. This junction has been modelled using the PICADY module within the Junctions 9 software. The results are shown in the following section and the full results are provided within Appendix N.

TABLE 11: JUNCTION 2 SPRING LANE / BURY ROAD JUNCTION ANALYSIS (CURRENT SCENARIOS)

Approach	2023 Current Scenario			
	0800-0900		1500-1600	
	Max RFC	Max Queue	Max RFC	Max Queue
Rectory Lane (Left)	0.50	1.0	0.48	0.9
Rectory Lane (Right)	0.52	1.1	0.50	1.0
Spring Lane	0.69	3.0	0.63	2.0

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5.5.12. Table 11 above shows the junction currently operates within capacity with a maximum RFC of no more than 0.69.

TABLE 12: JUNCTION 3 SPRING LANE / RECTORY LANE JUNCTION ANALYSIS (BASE AND FUTURE SCENARIOS)

Approach	2025 Opening Year				2030 Future Year			
	0800-0900		1500-1600		0800-0900		1500-1600	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
Base Traffic								
Rectory Lane (Left)	0.51	1.0	0.49	1.0	0.54	1.2	0.52	1.1
Rectory Lane (Right)	0.53	1.1	0.51	1.0	0.57	1.3	0.54	1.1
Spring Lane	0.71	3.2	0.65	2.1	0.74	3.8	0.67	2.4
Base plus Committed Development Traffic								
Rectory Lane (Left)	0.59	1.4	0.61	1.5	0.64	1.7	0.68	2.0
Rectory Lane (Right)	0.67	1.9	0.74	2.5	0.72	2.3	0.78	3.1
Spring Lane	0.74	3.8	0.67	2.4	0.78	4.6	0.70	2.8
Base plus Committed plus Development Traffic								
Rectory Lane (Left)	0.64	1.7	0.65	1.7	0.70	2.2	0.72	2.3
Rectory Lane (Right)	0.71	2.2	0.76	2.8	0.76	2.8	0.80	3.5
Spring Lane	0.78	4.7	0.70	2.7	0.82	5.9	0.73	3.2

5.5.13. A Ratio of Flow to Capacity value below 0.85 indicates that a junction or arm operates within its predicted capacity. An RFC value between 0.85 and 1.00 indicates that there may be occasions during the period modelled when queues will develop and delays will occur. An RFC value greater than 1.00 indicates that the junction or arm operates beyond its theoretical capacity.

- 5.5.14. Table 12 demonstrates that the junction operates within capacity in all scenarios with a maximum RFC of 0.82 in the AM peak and therefore can accommodate the proposed development.

5.6. COMPLIANCE WITH NATIONAL AND LOCAL PLANNING POLICIES

- 5.6.1. The proposed development is considered to be located in a highly sustainable location and provides access by a genuine range of transport modes which accords with paragraph 110 of the NPPF.
- 5.6.2. This report has shown that a safe means of access to and from the site for all road users is achievable, particularly for pedestrians and cyclists (paragraph 110 of the NPPF).
- 5.6.3. The adjacent highway network can adequately accommodate the traffic impact of the proposed development except at the Spring Lane junction with Bury Road, where the junction is already operating close to its desired capacity before the addition of traffic growth / committed development traffic or development traffic but still remains within theoretical capacity. It is considered that the proposals will not result in severe residual cumulative highway impacts, and therefore will comply with paragraphs 111 and 113 of the NPPF.
- 5.6.4. This report has also demonstrated that the proposed development accords with the policies within the Greater Manchester Transport Strategy in that the site is accessible by pedestrians, cyclists and bus users and adequate parking can be provided on site.
- 5.6.5. Therefore, the proposals comply with the national and local policies described in Section 2 of this report.

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6. Conclusion

- 6.1.1. This Transport Assessment assesses the characteristics of the existing infrastructure in the surrounding area of the site and predicts the development generated traffic. It concludes that the adjacent highway network can adequately accommodate the traffic impact of the proposed development in terms of safety and capacity.
- 6.1.2. This assessment has considered the existing and proposed operation of the highway in terms of highway safety, sustainability and capacity.
- 6.1.3. The site is considered to be in a highly sustainable location with a wide range of local services and facilities that can be accessed on foot and by cycle. Frequent bus and Metrolink Tram services operate near the site.
- 6.1.4. In conclusion, it has been demonstrated that the proposed development offers should be accommodated without any significant negative impact on the adjacent highway network, being in a highly sustainable location accessed by a range of transport modes, for both staff, pupils and visitors. There are no safety reasons why this development should not be granted planning approval.

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