



TRANSPORT STATEMENT
Green Park Village Primary School, Reading

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1.0 Introduction

- 1.1 This Transport Statement has been prepared by Glanville Consultants on behalf of St Edward Homes to assess the transport impact resulting from the expansion of the proposed Green Park Village Primary School from a one-form entry to a two-form entry establishment. The one-form entry school has previously been granted outline planning permission in 2011 (planning application reference 10/2172).
- 1.2 St Edward Homes is a joint venture between Berkeley Homes and the Prudential Assurance Company and is the company developing Green Park Village.
- 1.3 The proposed school site is currently occupied by the Green Park Village marketing suite. It is located at the junction of Longwater Avenue with the future Flagstaff Road (formerly known as Station Road) and will be situated 450m southeast of the proposed Green Park railway station. It is understood that the school will be operated by the REAch 2 Academy Trust.
- 1.4 As the school has already received planning consent, it is considered appropriate for this application to be accompanied by a Transport Statement rather than a Transport Assessment in accordance with national and local policy and best practice.
- 1.5 This Transport Statement describes the proposed number of person and vehicular trips associated with the proposed school. Matters pertaining to access, parking, traffic generation, servicing and the accessibility of the site by means other than the car are all given consideration.
- 1.6 The scope of this Transport Statement has been agreed with Reading Borough Council (RBC) Highways in a meeting on the 8th March 2017.
- 1.7 The statement follows advice from Central Government in the form of the *National Planning Policy Framework* [NPPF] (March 2012) and subsequent *Planning Practice Guidance* [PPG] (March 2014).

2.0 Transport Policy

2.1 This section provides a brief overview of the key national and local policy relevant to the development of the site from a transport and highways perspective.

National Policy Documents

2.2 The national policy documents, which set the context for this development proposal, include:

- The Future of Transport White Paper (2004) - A Network for 2030; and
- National Planning Policy Framework (NPPF - March 2012).

2.3 A key thread of national policy is to ensure the provision of a transport network that can meet the challenges of a growing economy and the increasing demand for travel, but can also achieve environmental objectives.

2.4 The NPPF seeks to integrate planning and transport at the national, regional, strategic and local level in order to:

- Balance transport systems in favour of sustainable transport modes;
- Promote accessibility to jobs, shopping, leisure facilities and services by public transport, walking and cycling;
- Ensure safe and suitable access to the site can be achieved by all people; and
- Minimise the length of routes to key facilities such as primary schools and local shops.

2.5 The proposed site complies with national policy as it is located near to a frequent bus route and the new Green Park railway station thereby maximising the opportunity for trips to be made on foot, by bicycle and by public transport.

2.6 In addition to this, the transport demands of the proposed development are assessed in this Transport Statement and the accompanying School Travel Plan thus complying with NPPF policy regarding assessing and managing future travel demand to and from the site.

Local Policy Documents

2.7 The local policy documents relevant to the development proposal are as follows:

- Berkshire Structure Plan 2001 – 2016;
- Reading Borough Council's 'Core Strategy' (2008 and revised 2015);
- Reading Borough Council's 'Sites and Detailed Policies Document' (2012);
- Draft Reading Borough Local Plan Consultation Document (May 2017); and
- Reading Borough Council's Local Transport Plan 3 – 2011 to 2026 (2011).

Berkshire Structure Plan 2001 – 2016

- 2.8 This Structure Plan provides a joint statutory development plan for the six Unitary Authorities which formerly made up Berkshire County Council. It sets out the Unitary Council's combined policies and proposals for the development and use of the land in Berkshire. The specific transport policies relating to the development include:

Policies DP 1 and DP 2

- The scale of development shall be related to its accessibility by public transport, cycling and walking.

Policy T1 – Transport Strategy

- Within Berkshire, there will be a strategy to ensure that the best use is made of modes of travel other than the car.
- Councils will use their planning powers to:
 1. Reduce the need to travel by car;
 2. Promote alternative modes of travel to the car;
 3. Increase the safety of travel; and
 4. Provide improved access to jobs, leisure opportunities and services for all members of the community.

Policy T4 – Travel Impacts

- All developments will take appropriate measures to offset any adverse effects it has on the transport network.
- Developments which generate a significant number of trips should include the promotion of sustainable alternatives modes of travel to private car, and should minimise the pressure on the transport network.

Policy T5 – Car Parking

- Car parking should be planned to decrease the rate of growth in car travel and to decrease the proportion of trips undertaken by car.

Reading Borough Council's Core Strategy (January 2015)

- 2.9 This policy document identifies the Borough's overall planning strategy and important development principles. It provides a framework as to how Reading can grow in a sustainable way in the future.

- 2.10 With regards transport, the Core Strategy identifies the following objectives:
- Promoting sustainable transport;
 - Promoting the accessibility of sites to essential facilities by transport, specifically walking, cycling and public transport; and
 - Reducing the need to travel, especially by car.

- 2.11 The transport policies affecting the proposed development are as follows:

Policy CS3 – Social Inclusion and Diversity

- Major developments should demonstrate measures to enhance social inclusion in terms of access to housing to housing and education. New housing developments will be co-located with a range of accessible facilities or appropriately planned and located to ensure that access to such facilities is provided.

Policy CS4 – Accessibility and the Intensity of Development

- The scale and density of development will be related to its level of accessibility by walking, cycling and public transport to a range of services and facilities. Sites will be assessed in terms of their level of accessibility to a good range of facilities by pedestrian routes, and to a bus stop served by a strategic bus service. The size and scale of any development must be appropriate to its level of accessibility.

Policy CS20 – Implementation of the Reading Transport Strategy (Local Transport Plan 2006 – 2011)

- Planning permission will not be granted unless the proposals contribute towards the provision of a balanced transport network. Such projects and plans will include the provision of measures that make alternatives to the use of private cars more attractive and contribute towards improved accessibility in accordance with Policy CS4.

Policy CS22 – Transport Assessments

- Planning permission will not be granted unless development proposals make appropriate provision to ensure an adequate level of accessibility and safety by all modes of transport in accordance with an agreed transport assessment submitted as part of the application.

Policy CS23 – Sustainable Travel and Travel Plans

- Planning permission will not be granted for major development proposals unless there is a commitment to implement measures to promote and improve sustainable transport facilities. This will be through provision to encourage walking, cycling and public transport use and will be undertaken as part of an agreed travel plans and through safe routes to schools.

Policy CS24 – Car / Cycle Parking

- Maximum car parking standards and cycle parking requirements will be applied in relation to the accessibility of locations within the Borough to sustainable transport facilities, particularly public transport.

Reading Borough Council's Local Development Framework – Sites and Detailed Policies Document (October 2012)

- 2.12 This document sets out the detailed policies utilised by RBC when considering planning applications. The policy relating to transport and the proposed school development is as follows:

Policy DM12 – Access, Traffic and Highway Related Matters

- In determining proposals involving a new or altered access onto the transport network or the generation of additional trips on the network, consideration will be given to the effect on safety, congestion and the environment.
- Development will only be permitted where:
 1. The development would not have a material detrimental impact on the functioning of the transport network;
 2. The proposal would not be detrimental to the safety of users of the transport network, including pedestrians and cyclists;

3. The proposal would not generate regular movements of HGVs on unsuitable roads or on roads without easy access to the Classified Road Network;
4. For non-residential uses, off-street servicing would be provided.

2.13 Paragraph 16.15 of this document also identifies that there is a shortfall of primary school places within Reading

Draft Reading Borough Local Plan (Consultation Version) May 2017

2.14 Reading Borough Council are currently consulting on the Borough's new Local Plan. This document will contain the policies for Reading's development up to 2036. It will replace the current Core Strategy, Reading Central Area Action Plan and the 'Sites and Detailed Policies' Documents. The relevant draft policies relating to transport and the proposed school development are as follows:

Policy CC6 – Accessibility and the Intensity of Development

- The scale and density of the development will be related to its level of accessibility by walking, cycling and public transport to a range of services and facilities.

Policy TR1 – Achieving the Transport Strategy

- Proposed development should contribute appropriately to meeting the objectives of the most up to date Local Transport Plan or any successor document. Planning permission will not be granted for major developments unless there is a commitment to implement measures to promote sustainable transport facilities e.g. measures to encourage walking, cycling and public transport use and through agreed Travel Plans.
- All development proposals should make appropriate provision to ensure adequate level of accessibility and safety by all modes of travel but particularly public transport, walking and cycling in accordance with any transport assessment.

Policy TR3 – Access, Traffic and Highway-Related Matters

- In determining proposals involving new accesses onto the highway or the generation of additional trips, consideration will be given to the effect on safety, congestion and the environment.
- Development will only be permitted where:
 1. Access and highway works comply with the adopted standards;
 2. There would not be a material detrimental impact on the functioning of the transport network;
 3. The proposals would not be detrimental to the safety of users of the transport network including pedestrians and cyclists;
 4. The proposal would not generate regular HGV movements; and
 5. For non-residential uses, off-street servicing would be provided.

Policy TR4 – Cycle Routes and Facilities

- Developments should improve access for cyclists and provide cycling facilities including cycle parking. Any proposed development should not detrimentally impact an identified cycle route and where possible, improvements to that route will be sought.

Policy TR5 – Car and Cycle Parking

- Developments should provide car parking and cycle parking that is appropriate to the accessibility of locations to sustainable transport facilities particularly public transport.

Policy OU1 – New and Existing Community Facilities

- New community facilities should be located where there is a choice of means of travel including walking and cycling.

Reading Borough Council's Local Transport Plan 3 – 2011 to 2026 (2011)

2.15 Reading's Local Transport Plan 3 (LTP3) contains objectives, policies and schemes intended to improve transport provision within the local area, in order to contribute to wider social, economic and environmental benefits.

2.16 The vision of the LTP3 is to:

- Improve accessibility by non-car modes;
- Manage and upgrade the transport network to provide a safe and efficient infrastructure; and
- Ensure that Reading remains a successful economic area by providing excellent transport connections.

Design Guides

2.17 The following documents have been referred to in order to establish relevant guidance in terms of the evolution of the masterplan:

- Design Manual for Roads and Bridges – Department of Transport;
- Manual for Streets – Department of Transport; and
- Manual for Streets 2 – Department of Transport;

2.18 The above documents have all been reviewed and adhered to throughout the design of the site to ensure that the development accords with all relevant local design guidance.

3.0 Site Description and Existing Conditions

Site Description

- 3.1 The proposed Primary School site is a brownfield site situated within the St Edward Homes Green Park Village development to the south west of Reading. It is situated adjacent to the existing Green Park Business Park.
- 3.2 It is located on the northern side of the junction of Longwater Avenue and Flagstaff Road (formerly known as Station Road), and opposite the Care Home currently being constructed on the future Flagstaff Road. The site is currently used for the marketing suite for the St Edwards development. The location of the site within the Green Park Village development is shown In Figure 1.

Existing Highway Conditions

- 3.3 The school site is located on the northern side of Longwater Avenue. This road provides access to the Green Park Business Park and connects to the A33 at the Bennet Road / Northern Way junction to the east of Green Park and the A33 at the South Oak Way junction to the south east of the development. The A33 provides a direct connection between Central Reading and Junction 11 of the M4, approximately 1.1km south east of the South Oak Way junction. Longwater Avenue and South Oak Way also form the main access route for traffic associated with the Green Park Village development and the future Green Park railway station.
- 3.4 In the vicinity of the site, Longwater Avenue is a single carriageway road approximately 10m wide with a 1.3m central strip constructed out of block paving. The road is currently private and managed by Green Park and RBC Highways have confirmed that there are no current plans for the roads within Green Park or Green Park Village to be adopted.
- 3.5 Longwater Avenue currently does not have any parking restrictions along its length and it provides vehicular access to the Office car parks within the northern side of the Business Park. Mapletree have confirmed that there is no spare capacity within these car parks because the number of employees within these buildings will be increasing in the near future. As this spare capacity decreases, and the number of residential dwellings increase, there may become a need for parking restrictions along the local highway network in the future.
- 3.6 To the east of the site, Longwater Avenue widens to a dual carriageway approximately 17.6m wide with a 3m wide kerbed central island. This section of carriageway also consists of a 1m wide mandatory cycle lane in both directions.
- 3.7 Whilst Flagstaff Road has yet to be constructed, the junction with Longwater Avenue has been built. It takes the form of 40m diameter roundabout with a splitter island on each approach. There is a 25m diameter central island which has a vegetation centre and a grass verge around the edge.
- 3.8 Once open, Flagstaff Road will be a 7.3m wide single carriageway road. It will provide vehicular and pedestrian access to the railway station and the Green Park Village Phase 6 development to the west of the lake.

- 3.9 Both Longwater Avenue and Flagstaff Road form part of the Greenwave bus route and consequently there are bus stops in the vicinity of the school site. The first pair are on Longwater Road opposite the future location of the school's all-weather pitch. The next set of bus stops will be located on Flagstaff Road, on the other side of the Green Park Village Market Square adjacent to the school site.
- 3.10 There are 1.5m wide gravel footways along the southern side of Longwater Avenue, whilst 2m wide footways will be provided along the northern side of Flagstaff Road linking the school and the station. At various points along both roads, the residential development is providing raised uncontrolled crossings to provide level access to bus stops and the school site.
- 3.11 Green Park Village has been designed to have excellent pedestrian permeability between all aspects of the development, Longwater Avenue and the Green Park station site. It consists of a comprehensive network of footways throughout the development. These footways have been designed to be between 1.5m and 2.5m wide.
- 3.12 It is understood that the posted speed limit through the development will be 20mph. The current speed limit along Longwater Avenue is 25mph and it is assumed that the same speed limit will apply to Flagstaff Road.

Peak Hours

- 3.13 For the purposes of this Transport Statement, it has been assumed that the highway peak hours are as follows:
- AM Peak – 8am to 9am; and
 - PM Peak – 5pm to 6pm.

Road Safety

- 3.14 An online review of accidents has been undertaken using the CrashMap website (www.crashmap.co.uk). This review shows that between 1st January 2013 and 31st December 2017, there were no accidents on Longwater Avenue or Brook Drive in the vicinity of the school. The closest accidents to the site occurred at the two Longwater Avenue roundabouts with the A33 and at the South Oak Way junction with Hurst Way, near the Madejski Stadium.

4.0 Proposed Development

- 4.1 As part of the original Green Park Village outline planning application (ref 10/2172), permission was granted for a one-form entry school for pupils up to the age of 11. This School was originally proposed in order to serve pupils living within the Green Park Village development.
- 4.2 Since the outline application was approved in 2011, Reading Borough Council has requested that the School is expanded to a two-form entry establishment. Consequently, the school would provide educational services to not only students from the local development but also for those in other parts of Reading. It is currently anticipated that the school will open in the Summer of 2019. The proposed school layout is shown in Appendix A.
- 4.3 The school will be located on the northern side of the roundabout connecting Longwater Avenue and the future Flagstaff Road. It will be sited next to the Green Park Village Market Square and will include a small twenty space staff car park and a small 5-a-side all-weather pitch.
- 4.4 It is considered that the school day will be between 8:45am and 3:15pm with both a breakfast club and after school club being provided to pupils. Consequently, it is considered that the school peak hours would be as follows:
- AM Peak – 8am to 9am; and
 - PM Peak – 3pm to 4pm.
- 4.5 It has been agreed with RBC Highways that the morning peak hour would have the worst impact on the highway network as it would occur at the same time as office workers travelling to Green Park. Consequently, the afternoon school peak would not need to be assessed as the School Peak would not occur at the same time as the Business Park peak.

Pupil Numbers

- 4.6 This Transport Statement has been developed based on a two-form entry school which provides educational facilities for a total of 446 pupils. It is proposed that, once the school is fully occupied, it will consist of the following school years, with each class consisting of a maximum of thirty pupils:
- Nursery for 26 FTE¹ children
 - 2 x Reception classes;
 - 2 x Year 1 classes;
 - 2 x Year 2 classes;
 - 2 x Year 3 classes;
 - 2 x Year 4 classes;
 - 2 x Year 5 classes; and
 - 2 x Year 6 classes.
- 4.7 As the original one-form entry school was intended to serve Green Park Village, it had been assumed that half the students will live within the neighbouring development. However, the provision of a two-form entry school will cater for

¹ FTE refers to Full Time Equivalent nursery children

students who live outside the development. Consequently the number of pupils who live within Green Park Village has been calculated using factors provided by RBC and applied to the number of dwellings within the consented Green Park Village Outline scheme and have been agreed with RBC's Education department.

4.8 These calculations are shown in Tables 1 and 2.

Table 1: RBC Projected Pupil Factors

	Rising Fives (under 4)	Primary (5-10)	Primary and Rising Fives
2 Bed Houses	0.10	0.56	0.66
3+ bed House	0.13	0.74	0.87
1 Bed Apartments	0.00	0.00	0.00
2 Bed Apartments	0.12	0.17	0.29
3+ Bed Apartments	0.18	0.22	0.40

Table 2: Projected Pupil Numbers

	Consented GPV Residential Mix²	Rising Fives (under 4)	Primary (5-10)	Primary and Rising Fives
2 Bed Houses	0	0.0	0.0	0.0
3+ bed House	394	51.2	291.6	342.8
1 Bed Apartments	32	0.0	0.0	0.0
2 Bed Apartments	161	19.3	27.4	46.7
3+ Bed Apartments	70	12.6	15.4	28.0
Total	657	83.1	334.3	417.5

4.9 The projected pupil numbers identified within Table 2 indicates that is likely to be a total of 417 pupils who live within the Green Park Village. This equates to 93% of the total 446 student places within the proposed school.

4.10 It should be noted that this does not take into account the proposed change from B1 Office use to residential properties associated with the future Green Park Phase 6a development, it is considered that these properties will be aimed towards young professionals or people who are downsizing. Consequently, it is not anticipated that many families will live in these apartments and therefore they would not generate a significant demand for school places. If these dwellings are included, then 100% of the anticipated school pupils would live within Green Park Village.

² Consented residential mix taken from the Green Park Village Outline application (10/2172)

Staff Numbers

- 4.11 The original school application identified that a one-form entry school would have 18 members of staff. In order to calculate the number of staff associated with the proposed school expansion, a first principles approach has been undertaken.
- 4.12 This approach has assumed that there will be one teacher and one teaching assistant per class along with a number of non-teaching staff members. Consequently, the assumed staff breakdown is as follows:
- 16 no. teachers (assuming two nursery teachers);
 - 16 no. teaching assistants (assuming two nursery assistants);
 - 1 no. Headteacher;
 - 2 no. administration staff;
 - 4 no. part time kitchen staff equating to two FTE³ staff members
 - 4 no. visitors (e.g. music teachers).

It is therefore considered that there will be a total of 41 FTE staff members.

- 4.13 As with the pupils, it has been assumed that a couple of the teachers will also live within the Green Park Village development.

Access to the School

- 4.14 Pedestrian access to the school will be via the school's main entrance, which directly leads onto Market Square. Pupils and staff travelling to and from the school from the north east of Green Park Village, will be able to access the Market Square from the north via Champlain Street. The Market Square will be accessible from Flagstaff Road which provides direct pedestrian access to both Longwater Avenue and the proposed Green Park railway station.
- 4.15 An additional pedestrian access gate will be provided in the south eastern corner of the site to provide access to the footway adjacent to the Longwater Avenue / Flagstaff Road roundabout. However, to maintain the security perimeter of the school, it is not anticipated that this gate would be used for day to day use to access the school.
- 4.16 Vehicular access to the staff car park will be restricted to staff vehicles at all times. No student or parent access will be allowed even during the breakfast and after-school clubs. The staff car park will contain twenty parking spaces for the assumed 41 members of staff with one space reserved for blue badge holders.
- 4.17 The staff car park will be situated to the rear of the school site and accessed via a 4.8m wide access road which connects to Champlain Street via a priority T-junction. Champlain Street connects the school to the internal road network of the adjacent Green Park Village development and provides vehicular access to Longwater Avenue via Maine Street.
- 4.18 Due to the constrained nature of the staff car park and the lack of available turning space, the School should consider managing the parking in order that each space can be fully utilised. An example would be the implementation of a specified order in which the bays should be filled up.

³ FTE refers to Full Time Equivalent staff members

- 4.19 As part of the Market Square development, seven parking bays will be provided on Flagstaff Road adjacent to the Market Square. During school peak hours, these bays will be restricted for school car sharing and for drop-off / pick-up activity with appropriate signage setting out the parking restrictions. It is anticipated that these bays will be managed and enforced by the Green Park Village parking enforcement company with fines being issued for ignoring the restrictions. This will ensure that parents do not park and block the spaces. Where parents repeatedly ignore the parking restrictions and enforcement, the school will work with the parking enforcement company to identify a solution. The arrangement of these bays are shown in Figure 2.
- 4.20 Four of these parking bays will be reserved for a school bus at times when it is required for school outings. The proposed parking provision associated with the school is discussed further within Section 7 of this Transport Statement.

Servicing and Deliveries

- 4.21 It is proposed that all servicing and delivery activity associated with the school will occur to the rear of the building within the staff car park. It is anticipated that this activity will not occur during the school peak hours and the relevant restrictions will be put in place by the school.
- 4.22 Delivery vehicles will access the school car park via Longwater Avenue, Maine Street and Champlain Street. It is anticipated that the largest delivery vehicle which would potentially require access to the car park would be a 10m Rigid heavy goods vehicle.
- 4.23 A swept path assessment showing a 10m Rigid heavy goods vehicle accessing the car park is shown in Figure 3. This figure also shows that a delivery vehicle is able to turn around with the car park allowing the vehicles to arrive and depart from the school in forward gear. Deliveries will be wheeled to the school via the 1.8m wide side aisle of the disabled bay. This will either be on level ground or dropped kerb provision will be provided.
- 4.24 Where vehicles turn into / out of the school access road from Champlain Street, the Green Park Village management company will monitor the kerb and kerb radii to ensure it is not damaged by vehicles. If damage does occur then minor adjustments will be made to the kerb to assist delivery vehicles.

Refuse Collection

- 4.25 Manual for Streets (DfT, 2007) recommends the following in relation to refuse collections for residential developments:
- maximum reverse distance of 12m for refuse collection vehicles, although longer distances can be considered if reversing routes are straight and free from obstacles or visual obstructions;
 - staff should not be required to carry waste more than 30m to the storage point; and
 - refuse collection vehicles should be able to get to within 25m of the storage point.

- 4.26 The staff car park has been designed to ensure sufficient space to enable emergency and refuse vehicles to enter and leave the site in forward gear in accordance with paragraph 4.16.
- 4.27 A swept path assessment, based on the vehicle dimensions identified above, has been undertaken to ensure that sufficient turning space has been provided and this analysis has been provided within Figure 3. As with deliveries, refuse will be collected via the disabled bay's 1.8m wide side aisle.
- 4.28 RBC's 'Waste Management Guidelines for Property Developers, Architects, Planners and Contractors' has been consulted in order to identify the correct dimensions of refuse vehicles used within Reading and a representative vehicle identified for the swept path assessment.

Community Use

- 4.29 It is understood that the school hall and sports pitch may be used for community events. It is considered that the main use of the school hall would potentially be by residents of the adjacent Green Park Village for village events and meetings. It is anticipated that the majority of these people would walk to and from the school site. The school should consider whether the staff car park would be available for public use, otherwise unallocated parking within the Market Square and the station car park should be utilised out of school hours.
- 4.30 The sports pitch will not be a full size pitch as it will cater for 5-a-side matches and will not be floodlit. Consequently, it would only potentially be used for local leagues or for residents of Green Park Village outside of peak hours or at weekends.
- 4.31 Where people drive to use the facilities, the organiser of the event should make it clear in advance that there is limited on-site parking and promote the different travel options available to visitors. All visitors should be encouraged to utilise the local bus and train services and the town's Park and Ride service.
- 4.32 Where visitors still decide to drive to and from the school, the nearby station car park will be available for use at the cheaper off-peak rate.
- 4.33 For events which take place at the weekend or evenings, the school should liaise with the adjacent Green Park Business Park to identify whether the nearby office car parks could be utilised when not being used by office staff.

Visitors

- 4.34 It is anticipated that any visitors during the school day would be able to utilise the seven parking spaces situated on Flagstaff Road and the adjacent Market Square unallocated parking. If required, the nearby station car park would be available for visitor use.
- 4.35 It is considered that the largest number of visitors would be experienced during open days / evenings, parent's evenings or school concerts. It is considered that if these events would likely take place during the evening or at weekends and the majority of visitors would be drawn from the local Green Park Village development. However, for these occasional events, then the school would investigate the potential of an arrangement with the adjacent Green Park Business Park to utilise one of their empty car parks.

5.0 Traffic Generation

5.1 This section of the Transport Statement identifies the predicted number of trips generated by the proposed school.

5.2 As part of this assessment, the following general assumptions have been used:

- The school day will be between 8.45am and 3.15pm;
- There will be a breakfast club between 8am and 8.45am; and
- There will be an after-school club between 3.15pm and 4.30pm.

Pupil Trips

5.3 To ensure that the proposed school will accurately reflect the out of town location of Green Park Village (GPV), a first principles approach has been undertaken to determine the likely number of student trips generated by the expanded school. A summary of the trip calculations set out within this section has been provided within Appendix B.

5.4 Section 4 identifies that, when fully occupied, there will be a total of 446 pupils at the school. In accordance with the projected pupil numbers set out within Table 2, it is anticipated that 93% or 417 pupils will live within Green Park Village. It is therefore considered likely that they will walk, scoot and cycle to and from the school site, although this will need to be enforced through the School's Travel Plan to ensure that parents do not drive them to school.

5.5 To assist parents, if there is a demand or if local parents continue to drive their children to school, the school will consider introducing a walking bus operated by vetted and DBS checked parent volunteers within the residential development to encourage pupils to use non-car modes. Consequently, these trips have not been considered further within this assessment.

5.6 The remaining 29 students will need to travel to the school from outside Green Park Village. It is also assumed that half the teaching assistants are also likely to have children at the school and therefore eight parents will also be classed as staff and would be counted within the staff trips.

5.7 In order to accurately calculate the number of pupil vehicle trips, it has been assumed that some families will have more than one child at the school and consequently the number of vehicle trips will be affected by this assumption.

5.8 RBC Highways has provided surveyed data from a 2014 planning application for the Ridgeway Primary School in Reading. This data identifies that 50% of pupils within the school also have a sibling at the same school. Whilst this data is from 2014, RBC Highways have confirmed that it is still valid. Consequently, the number of vehicle trips within this assessment will reflect the assumption that on average, each family will have 1.5 children. It is considered, however that this is likely to be a worst-case representation as a small number of families could potentially have more than two children at the school. Therefore, the eight teaching assistants could potentially have twelve children (eight multiplied by 1.5 equates to twelve pupils).

5.9 Taking these assumptions into account, there will be a total of 17 individual pupil journeys from outside of the development (29 minus 12).

- 5.10 It has also been assumed that 10% of pupils will attend both the Breakfast Club and the After School club. This equates to two pupils out of the aforementioned 17 non Green Park student trips and who will therefore travel outside the main student peak hours.
- 5.11 Consequently, Table 3 sets out the pupil arrival and departure times associated with the proposed school.

Table 3: Non-GPV Total Pupil Trips

		Arrivals	Departures	Two-way
AM	Before 8am	2	0	2
	8.30am to 8.45am	15	0	15
PM	3.15pm to 3.30pm	0	15	15
	After 4.30pm	0	2	2
Total		17	17	34

- 5.12 The non-Green Park Village students who participate in the Breakfast Club and the After-School Club, will travel to the school by a variety of travel modes. The assumed modal split for these students is shown in Table 4.

Table 4: Breakfast and After-School Clubs Pupil Modal Split and Pupil Trips during the School Peak Hours

Mode	Proportion	Number of Pupils
Car	65%	1
Car Share	20%	1
Walking	0%	0
Cycling	0%	0
Train	5%	0
Bus	10%	0
Total	100%	2

- 5.13 The pupil trips identified within Table 4 indicates that there will be a total of two one-way vehicle trips associated with the Breakfast and After-School clubs. It is considered likely that the parents of these pupils will be travelling to work via the proposed Green Park railway station. Therefore, it is considered that potentially the two vehicle trips above could utilise the station car park to drop off or pick up the children. Alternatively, these students could utilise the seven car share bays along Flagstaff Road as, at this time, there should be sufficient free space within these bays.
- 5.14 Green Park Village is well located to various modes of sustainable transport as it is situated within walking distance of the proposed Green Park railway station and the

Greenwave bus route. As a result, it is considered that the remaining fifteen pupils will utilise a variety of travel modes to access the school site and will be strongly encouraged to do so through the School's Travel Plan. This assumed modal breakdown is shown in Table 5.

Table 5: Non-GPV Pupil Modal Split and Pupil Trips during the School Peak Hours

Mode	Proportion	Number of Pupils
Car	37%	6
Car Share	40%	6
Walking ⁴	2%	0
Cycling ¹	3%	1
Train	3%	0
Bus	15%	2
Total	100%	15

- 5.15 The pupil trips identified within Table 5 indicates that there will be a total of nine one-way vehicle trips associated with the school. This assumes that the each car share person trip will consist of two students. It is also assumed, as set out in paragraph 5.8, that each parent will have on average 1.5 children at the school. Consequently, the number of vehicle trips would decrease to six one-way vehicle trips (nine divided by 1.5).
- 5.16 The total number of vehicle trips associated with pupils who do not live within the Green Park Village development during the school opening and closing hours are shown in Table 6.

Table 6: Non-GPV Pupil Vehicle Trips during the School Peak Hours

Mode	Car Trips	Total Vehicles
Car	6	4
Car Share	6	2
Total	12	6

- 5.17 Table 7 below, shows the total number of student vehicle trips during the course of the day.

⁴ It is considered that only older children in Years five and six are likely to walk or cycle. It is considered that only a small proportion of children are likely to walk or cycle from Whitley or the Kennet Island development due to the distances involved.

Table 7: Non-GPV Pupil Vehicle Trips - Arrival and Departure Profile

		Arrivals	Departures	Two-way
AM	Before 8am	2	0	2
	8am to 9am	6	6	12
PM	3pm to 4pm	6	6	12
	After 4pm	0	2	2

- 5.18 Out of the six pupil vehicle trips identified in Table 6, two vehicles will be associated with car sharers, whilst the remaining four vehicles will be parents who drop-off their children. During the morning peak, it is anticipated that the six vehicles will all use the seven car share bays provided on Flagstaff Road outside the school. This will allow parents to drop-off their children directly outside the school's main entrance. Parking within these bays will be restricted through appropriate signage and enforced by the Green Park Village parking company. . It is proposed that this will be further enforced through strict Travel Plan measures. The school will work with the parking enforcement company to liaise with parents who regularly disobey these restrictions. These measures are discussed further within the accompanying School Travel Plan.
- 5.19 During the PM Peak, it is considered that all parents who drive will wish to park to pick up their children. The seven car share bays will accommodate all of the anticipated parents travelling from outside Green Park Village. However, if it is deemed that more parents are trying to use these bays, they will be restricted to parents who car share thereby providing an encouragement for parents to car share.
- 5.20 For parents who are unable to utilise the Flagstaff Road car share bays, it is proposed that they utilise the unallocated Market Square parking bays or use the station car park.
- 5.21 A 'drive share' scheme was considered but an issue arose as to who would be responsible if a parent damaged property when using other people's driveways. The school was concerned that they and their insurance would be held liable for promoting the scheme. However, the school would not be adverse to parents making their own voluntary arrangements with their friends or parents of their child's friends. Ideally the residents who voluntarily allow their drive to be used will also be parents of children at the school but they need not be exclusive to school parents provided that the arrangement is made voluntary by the parents and no responsibility is placed on the school.
- 5.22 It is understood that the school will be willing to consider staggering the end times of the school day according to school year to minimise any potential impact on the local highway network. This will be considered as the school grows and the actual impact on the highway network is identified.
- 5.23 It is acknowledged that initially the number of children travelling from outside the Green Park Village development might outnumber those from the adjacent properties. This is due to the school opening before families start moving into the neighbouring development. Consequently, there might be a greater proportion of children from outside Green Park Village in the first few years of operation than is represented within the trip assumptions.

- 5.24 It is considered, however, that during these first few years, the number of pupils will be minimal as the school will initially fill the nursery and the reception classes. As these students progress through the school, more children from the local development will join the years below. When the school is fully occupied, the first group of children will be in years five and six and are more likely to be dropped off to complete the journey to school by foot. They are also more likely to walk and cycle further than the younger pupils.
- 5.25 The School will monitor the travel implications associated with the initial intake of pupils to ensure that the impact on the highway remains low. Where required the school will consider additional Travel Plan measures to minimise the impact of the school until the number of pupils from Green Park Village increases such as staggering the end times.

Staff Trips

- 5.26 Section 4 of this Transport Assessment identifies that there will be a total of 41 FTE staff members, with a couple of employees potentially living within the Green Park Village development itself. A summary of the trip calculations set out within this section has been provided within Appendix B.
- 5.27 It is understood that the staff are liable to arrive on site at different times in order to help with the Breakfast Club and After School Club. Based on previous experience, it is considered that the teachers and the headteacher are liable to arrive at the school site before 08:00am. The teaching assistants and the administration staff, however, will arrive between 08:30 and 08:45, whilst the school visitors and the kitchen staff will arrive during the course of the school day outside of the peak hours.
- 5.28 At the end of the school day, the teaching assistants and the administration staff are liable to depart the school site between 3.15pm and 3.45pm, whilst the teaching staff and headteacher will depart the school after 4pm. It has also been assumed that the visitors to the school and the kitchen staff will depart before the school ends at 3.15pm.
- 5.29 Based on these arrival and departure patterns, the total staff person trip breakdown is shown in Table 8.

Table 8: Total Staff Trips

		Arrivals	Departures	Two-way
AM	Before 8am	17	0	17
	8am to 9am	18	0	18
	After 9am	6	0	6
PM	Before 3pm	0	6	6
	3pm to 4pm	0	18	18
	After 4pm	0	17	17
Total		41	41	82

- 5.30 The original school application identified that fifteen out of the eighteen staff drove to the site during the AM highway peak hour of 08:00 to 09:00. It is considered, however, that the site is well-located to sustainable transport modes. They include the Greenwave bus and the proposed Green Park railway station. It is also considered that a couple of staff will live on the Green Park Village development. As a result, it has been assumed that a proportion of staff will utilise sustainable modes of travel rather than their car.
- 5.31 Due to the proximity of the sustainable modes of travel, and on the basis that a strong School Travel Plan will be implemented, it has been considered that the staff modal split would be as follows:

Table 9: Staff Modal Splits

Mode	Proportion	Number of Staff
Car Driver	25%	10
Car Share	30%	12
Walking	5%	2
Cycling	5%	2
Train	10%	4
Bus	25%	10
Total	100%	41

- 5.32 Table 8 indicates that staff members are unlikely to arrive at and depart from the school site at the same time. Consequently, the number of staff person trips arriving and departing the school is shown in Table 10.

Table 10: Staff Person Trips – Arrival and Departure Profile

Mode	Arrivals			Departures		
	Before 8am	8am to 9am	After 9am	Before 3pm	3pm to 4pm	After 4pm
Car Driver	4	5	2	2	5	4
Car Share	5	5	2	2	5	5
Walking	1	1	0	0	1	1
Cycling	1	1	0	0	1	1
Train	2	2	1	1	2	2
Bus	4	4	1	1	4	4
Total	17	18	6	6	18	17

- 5.33 The person trips identified in Table 9 indicates that there will be a total of sixteen car trips associated with the school. This assumes that each car share person trip will consist of one driver and one passenger. It has also been assumed that the single odd car share trip associated with the five car share person trips will be dropped off at the site by a third party.
- 5.34 It is assumed that all staff vehicles will park in the staff car park to the rear of the school building. The parking provision is discussed further in Section 7.
- 5.35 A summary of the staff vehicle trips is shown in Table 11.

Table 11: Staff Vehicle Trips

		Arrivals	Departures	Two-way
AM	Before 8am	7	1	8
	8am to 9am	8	1	9
	After 9am	3	0	3
PM	Before 3pm	0	3	3
	3pm to 4pm	1	8	9
	After 4pm	1	7	8
Total		20	20	40

Service Vehicles

- 5.36 It has been assumed that the school will receive one delivery and one postal delivery per day. There will also be one refuse collection per day. This equates to three service vehicles, however it is considered that these vehicles will visit the site outside of the main school peak hours. All servicing and delivery activity will occur at the rear of the school via the staff car park.

Total School Trips

- 5.37 Utilising the student and staff person trips identified in Tables 4, 5 and 10 respectively, the total number of person trips associated with the proposed Primary School are set out within Table 12.

Table 12: Total School Person Trips (includes service vehicles)

Mode	Arrivals			Departures		
	Before 8am	8am to 8.45am	After 8.45am	Before 3.15pm	3.15pm to 4pm	After 4pm
Car Driver	5	11	5	5	11	5
Car Share	6	11	2	2	11	6
Walking	1	1	0	0	1	1
Cycling	1	2	0	0	2	1
Train	2	2	1	1	2	2
Bus	4	6	1	1	6	4
Total	19	33	9	9	33	19

- 5.38 The person trips shown in Table 12 above, have been converted into vehicle trips based on the trip generation set out in Tables 7 and 11. These vehicle trips are shown in Table 13.

Table 13: Total School Vehicular Trips (includes service vehicles)

		Arrivals	Departures	Two-way
AM	Before 8am	9	2	11
	8am to 9am	14	7	21
	After 9am	6	0	6
PM	Before 3pm	0	6	6
	3pm to 4pm	7	14	21
	After 4pm	2	9	11

Visitor Trips

- 5.39 As the school is new, it is difficult to identify how many visitor trips there would be per day. It is anticipated that any visitor trips would use either the car share bays on Flagstaff Road or the unallocated Market Square spaces. If required, they would also have to utilise the station car park or be encouraged to use sustainable transport or the town's Park and Ride service.

6.0 Development Impact

- 6.1 This section of the Transport Statement identifies the potential impact of the expanded school on the local highway network. This assessment continues to assume that 88% of the students would live within the adjacent Green Park Village development and would utilise the walking bus to access the school.
- 6.2 The net change in trips when compared to the one-form entry school is shown within Table 14.

Table 14: Net Change in School Vehicular Trips when Compared to Original Application

Time		Original Application			Current Application			Net Change		
		In	Out	Two-way	In	Out	Two-way	In	Out	Two-way
Morning										
Before 8am	Students	0	0	0	2	0	2	+2	0	+2
	Staff ⁵	5	1	6	7	1	8	+2	0	+2
	Total	5	1	6	9	1	9	+4	0	+3
8am to 9am	Students	0	0	0	6	6	12	+6	+6	+12
	Staff	15	4	19	8	1	9	-7	-3	-10
	Total	15	4	19	14	7	21	-1	+3	+2
Afternoon										
3pm to 4pm	Students	0	0	0	6	6	12	+6	+6	+12
	Staff	1	12	14	1	8	9	0	-4	-5
	Total	1	12	14	7	14	21	+6	+2	+7
After 4pm	Students	0	0	0	0	2	2	0	+2	+2
	Staff	1	7	8	1	7	8	0	0	0
	Total	1	7	8	1	9	10	0	+2	+2

- 6.3 The net change in trips shown in Table 14, indicates that there will be a net increase in student trips during each of the four time periods. This is because the number of students will increase as there will be additional students who live in other parts of Reading, whilst the students for the original application originated from the adjacent Green Park Village.
- 6.4 It is considered that the number of staff trips will decrease, despite a doubling in staff numbers. This is because the original assessment assumed that all the staff would drive to and from the school, whilst this revised assessment considers that the school employees will utilise sustainable modes to access the school site due to the limited amount of parking.

⁵ Staff vehicular trips for the original application have been calculated based on the trip rates provided within Appendix F of the Transport Assessment produced by Peter Brett Associates.

- 6.5 When taking into account the student and staff vehicle trips, Table 14 shows that there would be a cumulative increase in the total number of trips resulting from expansion of the school.

Cumulative Highway Impact

- 6.6 The change in vehicle trips identified within Table 14, indicates that there will be a net increase. To identify whether these additional trips will have an adverse impact on the operation of the highway network in the vicinity of the school, the cumulative impact has been calculated based on network traffic flows provided within the Transport Assessment for the original Green Park Village application. These traffic flows are shown in Table 15.

Table 15: Original Green Park Village Two-Way Traffic Flows

Junction	Forecast Base ⁶		Forecast Base Plus Dev ⁷		School Flows		Base Plus Dev. Minus School	
	AM	PM	AM	PM	AM	PM	AM	PM
Longwater Avenue / Brook Drive	1,678	1,664	2,044	1,955	15	7	2,029	1,948
Longwater Avenue / GP Northern Plots	1,109	1,039	1,492	1,397	15	7	1,477	1,390
Longwater Avenue / Green Park T-Junction	719	864	1,027	1,232	19	8	1,008	1,224
Longwater Avenue / Flagstaff Road	796	928	1,123	1,301	4	1	1,119	1,301
Longwater Avenue / South Oak Way	908	904	1,017	1,009	4	1	1,013	1,008
South Oak Way / Brook Drive	1,748	1,741	1,857	1,845	4	1	1,853	1,845
South Oak Way / Costco	1,688	1,742	1,798	1,848	4	1	1,794	1,847
South Oak Way / Hurst Way	1,628	1,707	1,738	1,884	4	1	1,734	1,883

- 6.7 To identify the percentage impact of the proposed school development, the school flows have been assigned to the highway network using the development flow turning proportions identified within Figures 7.1 and 7.2 of the original Transport Assessment. These proportions are as follows:

- AM Peak – 70% using Longwater Avenue to the north and 30% to the south
- PM Peak – 80% and 20% respectively.

⁶ Flows taken from Figures 4.2 and 4.3 of the original Green Park Village Transport Assessment

⁷ Flows taken from Figures 8.1 and 8.2 of the original Green Park Village Transport Assessment

- 6.8 In addition to using Flagstaff Road whilst the staff vehicle flows have been assigned to the Green Park Village priority T-junction to the north of the Flagstaff Road roundabout. The two-way flow assignments at the Green Park junctions and the percentage impact of the proposed expanded school are shown in Table 16.

Table 16: Predicted Cumulative Impact of Expanded Primary School (Two-Way Flows)

Junction	Base Plus Dev. without School		Expanded School Flows		Base Plus Dev. With Expanded School		Development Impact	
	AM	PM	AM	PM	AM	PM	AM	PM
Longwater Avenue / Brook Drive	2,029	1,948	15	8	2,044	1,956	0.7%	0.4%
Longwater Avenue / GP Northern Plots	1,477	1,390	15	8	1,492	1,398	1.0%	0.6%
Longwater Avenue / Green Park Access T-Junction	1,008	1,224	15	8	1,023	1,232	1.5%	0.7%
Longwater Avenue / Flagstaff Road	1,119	1,301	21	10	1,140	1,311	1.9%	0.8%
Longwater Avenue / South Oak Way	1,013	1,008	6	2	1,019	1,010	0.6%	0.2%
South Oak Way / Brook Drive	1,853	1,845	6	2	1,859	1,847	0.3%	0.1%
South Oak Way / Costco	1,794	1,847	6	2	1,800	1,849	0.4%	0.1%
South Oak Way / Hurst Way	1,734	1,883	6	2	1,740	1,885	0.4%	0.1%

- 6.9 Historically it is generally accepted that junctions should be assessed in detail with respect to their capacity where the anticipated percentage impact arising from a proposed development is 5% or greater. On this basis, the development impact shown in Table 13 indicates that all of the junctions within Green Park would fall below this threshold during both the AM and the PM Peak hours.

- 6.10 To identify whether this impact will adversely impact the operation of the highway network and the associated junctions, the junction modelling contained within the original Transport Assessment (TA) has been identified for each of the junctions which has an percentage impact greater than 1.5% during the AM Peak hour. The impact on each of the above junctions is discussed further below:

Longwater Avenue / GP Northern Plots

- 6.11 This junction takes the form of a roundabout and provides access to Green Park plots 200, 250 and 300. Within the original TA, the junction was modelled within ARCADY and given the reference 'Junction 2'.
- 6.12 The ARCADY modelling results shown within Table 8.3 of the original TA indicates that the highest RFC would be experienced on Longwater Avenue East during the AM Peak hour. This approach would experience an RFC of 0.510 (51% capacity) with a queue of one vehicle. It is therefore considered that there would be sufficient

spare capacity in order to accommodate the additional flows generated by the expanded school.

Longwater Avenue / Green Park Access T-junction

- 6.13 This junction is the priority T-junction which provides access to the eastern part of the Green Park Village development. It also provides vehicular access to the School's staff car park. This junction is referred to as 'Junction 7' within the original TA and was modelled within PICADY.
- 6.14 The PICADY modelling results shown within Table 8.8 of the original TA indicates that the highest RFC would be experienced for the turning movements out of Green Park Village during the AM Peak hour. This approach would experience an RFC of 0.091 with a queue of 0.1 vehicles (9% capacity). It is therefore considered that there would be sufficient spare capacity in order to accommodate the additional flows generated by the expanded school.

Longwater Avenue / Flagstaff Road

- 6.15 This junction is the roundabout which will provide access to the future Green Park Station. This roundabout was given the reference 'Junction 8' within the original TA and was originally modelled within ARCADY.
- 6.16 The ARCADY modelling results shown within Table 8.9 of the original TA, indicates that the highest RFC during the AM Peak hour would be experienced on Longwater Avenue North. This approach would experience an RFC of 0.409 (40.9% capacity) with a queue of one vehicle. It is therefore considered that there would be sufficient spare capacity in order to accommodate the additional flows generated by the expanded school.
- 6.17 In conclusion, it is considered that, when based on the original modelling of the junctions, there would be sufficient spare capacity to accommodate the vehicle flows associated with the two-form entry school.

7.0 Parking Provision

Student Parking

- 7.1 The proposed Primary School at Green Park Village was originally planned to be a one-form entry school with all pupils living on the adjacent development. As a result, it was anticipated that all students would walk, scoot and cycle to the school and therefore no student parking provision was proposed within the original development masterplan.
- 7.2 The expansion of the school to a two-form entry would double the number of pupils, whilst the land available for the school would remain the same size. Consequently, the proposed school site is extremely constrained.
- 7.3 Due to the constrained nature of the site, parking in accordance with Reading Borough Council's parking standards is unachievable. This is because 88 spaces would be required for staff and students. As part of this assessment, therefore, various options have been considered in order to provide parking choices for parents. These options included the following:
- Utilising the existing Park and Ride car park outside the Madejski Stadium for parents to park and then walk along the Green Park footway / cycleway to the school. Following detailed investigation, it has been identified that the parking provision outside the Stadium is planned to be significantly reduced as part of the Royal Elm Park development. In addition to this, there are legal issues with using the Park and Ride in this manner whilst there are a set of steps leading from the car park to the footway / cycleway which causes issues for parents with buggies and pushchairs.
 - Parking at the nearby Reading Gate Retail Park and walking along Longwater Avenue or Brook Drive to the School. Consultation was undertaken with the landlord of the retail park but permission to use the car was not forthcoming.
 - Utilising the car parking at the Station, although this parking would not be free and is unlikely to provide enough spaces.
- 7.4 It is therefore proposed to utilise the seven car share spaces on Flagstaff Road outside the school building and adjacent to the Market Square provided as part of the Market Square proposals. These spaces will be utilised for drop-off activity during the morning arrival period and will be strictly enforced to ensure that parents do not park. This will be enforced by the Green Park Village parking enforcement company and through strict measures implemented through the School's Travel Plan. The location of these spaces is shown within Figure 2.
- 7.5 Table 7 identifies that there will be a total of six student vehicles arriving between 8.15am and 8.45am. Utilising seven bays, this would equate to a single rotation of the bays. Consequently, if each vehicle takes five minutes to drop off their passengers into the supervision of the waiting teachers, the drop-off activity would take approximately five minutes to complete.
- 7.6 These bays can also be utilised for drop-off activity associated with the breakfast club in addition to any free spaces within the Market Square public parking spaces and the nearby station car park.

- 7.7 At the end of the school day, it is considered that all six parents would wish to park in order to wait for their children. If more than six parents drive, then to encourage parents to car share, the bays on Flagstaff Road will be restricted to the two car sharers and potentially four other parents between 2.30pm and 3.30pm. This will be enforced through strict Travel Plan measures and the Green Park Village parking enforcement company who will fine parents for inappropriate parking.
- 7.8 The remaining five parents will need to use the unallocated Market Square bays or the parking at the station. Alternatively, personal arrangements could be made between parents and local residents to use allocated Green Park Village resident bays. However, the school will not be held liable for this and would be dependent on voluntary agreements arranged by the parents themselves.
- 7.9 If the modal shares identified within Table 5 are not realised or there are fewer pupils living within Green Park Village than identified within Table 2, then enforcement of inappropriate parking will be vital and parents should be directed to alternative parking locations.
- 7.10 As with the morning arrivals, it is considered that children who attend the After-School club will be able to be picked up using the Car Share bays on Flagstaff Road the public bays within the Market Square car park and the near railway station car park. For safety reasons, there will be no pupil and parent access to the staff car park at any time.

Staff Parking

- 7.11 As with the student parking identified above, whilst the number of teachers will double when compared to the original application, the amount of land available for parking will not change. It is therefore proposed to provide twenty parking spaces to accommodate the sixteen vehicle trips identified within Table 10.
- 7.12 Due to the restricted amount of parking provided, the school will be reliant on an efficient and strong Travel Plan which will ensure that the modal shares identified within Table 5 will be achieved. Due to the close proximity of the Greenwave and Park & Ride bus stops on Longwater Avenue and the Green Park railway station, it is considered that this will encourage staff to use these sustainable modes, particularly when combined with parking restrictions within the Green Park estate.

Visitor Parking

- 7.13 During school hours, visitors will utilise the unallocated Market Square parking spaces or the seven bays on Flagstaff Road or the Park and Ride facility. A similar arrangement will be undertaken outside of school hours. For larger events, the school could consider opening up the staff car park for visitor use or coming to an agreement with the adjacent Green Park Business Park to utilise spaces in their car parks particularly during the evening and at weekends.

Cycle and Scooter Parking

- 7.14 To encourage both staff and students to either cycle or use their scooters, forty student cycle parking spaces will be provided in accordance with the Reading Parking Standards, whilst scooter parking will also be provided. A further ten cycle spaces will be provided for staff use in excess of the parking standards. This parking

will be monitored and expanded as and when demand outstrips the proposed provision.

- 7.15 It is proposed that these cycle spaces will take the form of Sheffield cycle stands and will be located adjacent to the car park. Staff access to these stands will be via the staff car park, whilst students will have to wheel their bicycles through the main entrance hallway of the school. It is understood that the surface of the main entrance hallway will be constructed of the same material as the Market Square in order to provide a suitable route for wheel bicycles and scooters through the school.

Buses

- 7.16 Occasionally, the school will require the need of a coach. It is considered that on the rare occasions a coach is required, three of the car share bays on Flagstaff Road would be reserved for this specific use.

Community Uses

- 7.17 Where the school is used for community uses for example the school hall or the 5-a-side pitch, the organisers should inform all attendees of the limited parking on-site. They should be directed to use the un-allocated Market Square spaces, the station car park, or the local Park and Ride facilities. When the event is taking place in the evenings or weekends, the school will also consider coming to an agreement with the Green Park Business Park to utilise an adjacent car park.

8.0 Site Sustainability

- 8.1 The site is situated within Green Park Village in the south west corner of Reading. It is situated adjacent to the Green Park Business Park and within a ten minute walk of the Madejski football stadium complex. It is therefore considered that there will be excellent accessibility to sustainable travel modes. This section of the report appraises the proposed school from the perspective of sustainable travel and general accessibility.

Walking

- 8.2 To encourage Green Park Village residents to walk, scoot or cycle to the school, a walking bus will be provided operated by parent volunteers. This walking bus will navigate the Green Park Village development to pick-up / drop-off local students.
- 8.3 Due to the remote location of the school from the residential suburbs of Reading the nearest residential areas, other than Green Park Village, are the Kennet Island residential development and Whitley, the western edges of which are situated 1.5km and 2km from the school respectively. It is considered unlikely that many school children will walk this distance on a regular basis and therefore only students in Years 5 and 6 are liable to walk to the school. In addition to this, staff and students using the Greenwave bus and the train service to the new Station will walk between the stops / station and the school. A plan showing a 2km walking catchment is shown in Figure 4.
- 8.4 Green Park Village has been designed to have excellent pedestrian permeability between all parts of the development, Longwater Avenue and the Green Park station site. It will consist of a comprehensive network of footways which have been designed to be between 1.5m and 2.5m wide. Pedestrian access will be from the adjacent Market Square.
- 8.5 There are 1.5m wide gravel footways along the southern side of Longwater Avenue, whilst 2m wide footways will be provided along the northern side of Flagstaff Road between the school and the station. At various points along both Longwater Avenue and Flagstaff Road, there will be raised uncontrolled crossings to provide access to bus stops and the school site.
- 8.6 There is a 4m wide footway / cycleway between the school site and the Madejski Stadium which provides a route for potential pedestrians. This route is well lit and is covered by CCTV. To access the route from the Stadium car park, there is a flight of approximately 40 steps, which could potentially cause issues for parents with pushchair and buggies and for children with bicycles.
- 8.7 The signalised roundabout at the junction of the A33 and Longwater Avenue provides a subway on the northern side of the junction and controlled crossings on the southern side. This provides a safe link to the suburb of Whitley, 2km to the east of the School site. It is considered that only staff members are liable to walk to and from the school from outside the Green Park Village development.

Cycling / Scooting

- 8.8 It is considered that the majority of pupils who will cycle or scoot to the school will be residents of the adjacent Green Park development. There is the potential for some

children in Years 5 and 6 to cycle from a further distance, most notably the Kennet Island development and Whitley who are situated approximately 1.5km to 2km east of the school site. A plan showing a 5km walking catchment is shown in Figure 5.

- 8.9 Cycle paths have been provided throughout the Green Park site. Longwater Avenue has mandatory on-road cycle lanes between the roundabout access to 200, 250 and 300 Longwater Avenue and the Brook Drive signalised junction. There is also a 4m wide footway / cycleway between Brook Drive and Longwater Avenue which also leads to the car park outside the Madejski Stadium. This forms part of the National Cycle Route 23 which connects central Reading to Basingstoke.
- 8.10 For students who wish to cycle from Whitley, the most direct route is via Bennet Road whilst utilising the controlled crossings or subway to traverse the A33. Bennet Road does not have any cycling provision but there is a footway, approximately 2m wide, on each side of the carriageway separated from the live traffic lanes via a grass verge approximately 2.5m wide.
- 8.11 Secure on-site cycle and scooter parking will be available to both pupils and staff.

Buses

Public Bus

- 8.12 The school site is well served by the existing Greenwave bus service. This service operates approximately every ten minutes between Reading Station and Green Park Village. These buses are powered by compressed natural gas.
- 8.13 The nearest stops to the proposed School are situated directly outside the site on Longwater Avenue and on Flagstaff Road, approximately 100m west of the school's Main Entrance. The bus stops include shelters, seating and timetable information. Real time information is also available via a centralised telephone number using the specific bus stop codes and via the Green Park website.

Park and Ride

- 8.14 The school site is situated within a ten-minute walk of the existing 600 space Park and Ride site outside the Madejski Stadium, where a Greenwave bus will link the Stadium to stops within Green Park, central Reading and Reading Stadium. These buses run every fifteen minutes Monday to Friday and every 30 minutes on Saturdays.
- 8.15 It is understood that as part of the proposed Royal Elm Park re-development of the area around the Stadium, the number of spaces will be reduced from 600 to 100, as the Park and Ride service will be replaced by the new provision at Moreoak to the south of M4 junction 11.

Rail

- 8.16 The proposed school is situated approximately 450m south east of the future Green Park Village railway station. This railway station is due to be completed by Spring 2019 and will be situated on the main Reading to Basingstoke railway line. Whilst the timetable is yet to be confirmed it is considered that there will be at least a twice hourly service between Reading and Basingstoke.

- 8.17 The station will provide a 242 space multi-storey car park, a bus interchange and a drop-off / pick-up loop.

School Travel Plan

- 8.18 Due to the constrained nature of the site, a detailed School Travel Plan will be submitted as part of the planning application. The intention of this Travel Plan will be to encourage as many parents and members of staff to utilise sustainable travel modes to access the school. This is especially important due to the limited amount of available space for the provision of parking.

- 8.19 The proposed Travel Plan initiatives and measures include:

- Promoting voluntary car sharing amongst school friends. This includes the provision and promotion of the privilege parking near to the school entrance on Flagstaff Road for those who car share;
- Potentially staggering school end times according to academic years to minimise the impact on the local highway network at the end of the school day;
- Implementing a 'Home / School Agreement' which includes the promotion of the school Travel Plan and a requirement for parents to read and acknowledge the measures contained within it. Both the Home School agreement and the Travel Plan should be regularly revised and updated. It is understood that parents must sign the agreement prior to their child starting at the school and every time it is updated to acknowledge its contents;
- Strict parking management and enforcement will be implemented around the school to ensure that parents do not park on the local highway network. It is anticipated that this will be enforced by the Green Park Village parking enforcement team with fines being issued for inappropriate parking;
- The school will work with the parking enforcement company if parents repeatedly park inappropriately;
- If the demand is there and / or local parents insist on driving to the school, the school should consider the introduction of walking bus routes run by approved parent volunteers through Green Park Village to pick up local children;
- Regular assemblies about travel and the importance of sustainable travel;
- Promoting sustainable travel as a competition amongst the children with rewards and prizes to encourage children to use non-car modes;
- Ask students to write their own mini Travel Plans for homework to get them to think about car use whilst linking sustainable transport use to the school's curriculum;
- Every introduction at school events talks about the importance of sustainable travel to the school;
- Provision of cycle training for example Bikeability for Year 5 and 6 pupils, in order to encourage those who can to cycle;
- Link sustainable travel to outside classroom work and health initiatives;
- Provision of secure cycle and scooter parking;
- Consideration towards the provision of awards or incentives for staff who car share or use public transport, although the feasibility of this will need to be confirmed by the school in order to ensure that public money is not misspent;
- Provision of information relating to cycle and public transport use to staff;
- Introduction of the 'Cycle to Work' scheme; and
- Provision of lockers and changing facilities for staff who cycle / run to work.

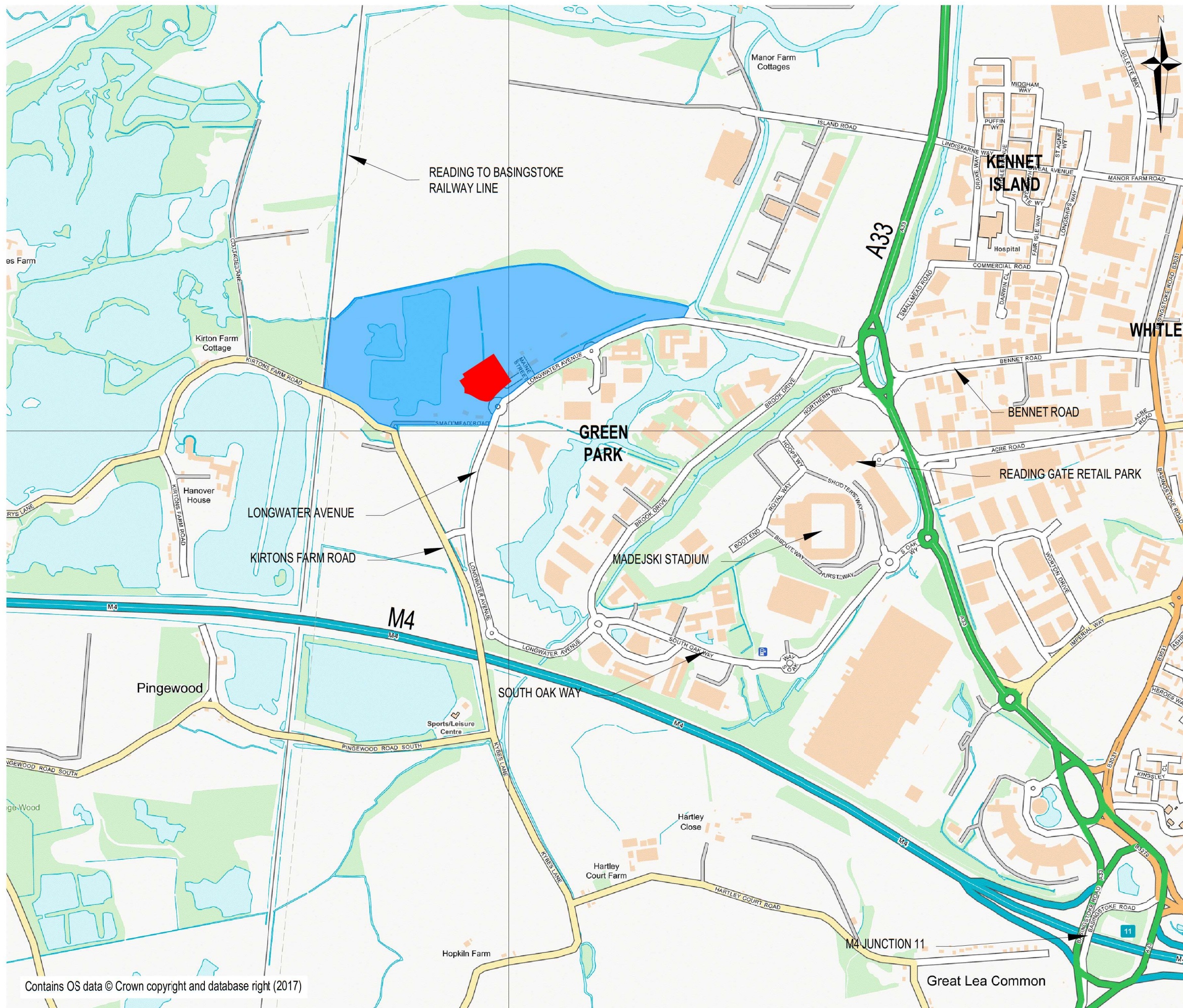
9.0 Summary and Conclusions

9.1 This Transport Statement has been prepared by Glanville Consultants on behalf of St Edward Homes, to accompany a planning application for a two-form entry Primary School within Green Park Village, Reading. The principal findings of the assessment are summarised below:

- The site has previously been granted planning consent (planning reference 10/2172) for a one-form entry primary school and nursery. The proposed development expands the consented school to a two-form entry establishment. It will accommodate 446 students with 41 members of staff;
- The site is located at the junction of Longwater Avenue and Flagstaff Road within the Green Park Village development;
- It is well located in terms of access on foot and by bicycle to the adjacent development and by bus and train to the centre of Reading. There are existing bus stops situated directly outside the site, which provide access to the regular Greenwave bus route and the Reading Park and Ride service which serve the town and the wider area. Staff and student use associated with these sustainable travel modes will be encouraged through a strong Travel Plan;
- The site is situated approximately 450m south east of the future Green Park railway station, the associated drop-off / pick-up loop and the station's multi-storey car park;
- A twenty space staff car park will be provided behind the school building for staff use only and will be accessed via the adjacent Green Park Village development. A further seven car share will be provided on Flagstaff Road adjacent to the proposed Market Square site and the school entrance for student use;
- An online review of accidents has been undertaken utilising the CrashMap website. This site indicates that there have been no accidents in the latest five-year period in the vicinity of the site. The highway in the vicinity of the site is therefore considered to be operating safely;
- The proposed two-form entry school would result in fourteen pupil vehicle trips and sixteen staff vehicle trips. A proportion of these pupil trips (two) will travel outside the network peak hours due to the Breakfast and After-school clubs;
- When compared to the vehicle flows associated with the original school application, there would be a net increase in trips. This is due to 7% of the school pupils needing to travel to Green Park Village from other parts of Reading, whilst the students for the original school all originated from the adjacent development;
- Whilst the additional flows will have an impact of less than 5% on the Green Park junctions, the modelling provided within the original Outline Transport Assessment indicates that there would be sufficient spare capacity to accommodate these additional flows without adversely impacting the operation of the junctions within Green Park.

- 9.2 In conclusion, the proposed two-form entry school development will result in a net increase in trips when compared to the former school application. However, it is considered that the adjacent junctions would not experience a significant adverse impact on their operation. Consequently, it is concluded that the Highway Authority should be able to make a positive recommendation to the Local Planning Authority in support of the planning application for the proposed development.

Figures



KEY

 PRIMARY SCHOOL SITE

 OVERALL GREEN PARK VILLAGE DEVELOPMENT SITE

FIGURE 1

FOR INFORMATION ONLY

I1	FIRST ISSUE	20/03/18	HG
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Rev.	Description	Date	Chkd
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Client :



St Edward
Charter School for Girls

Project :

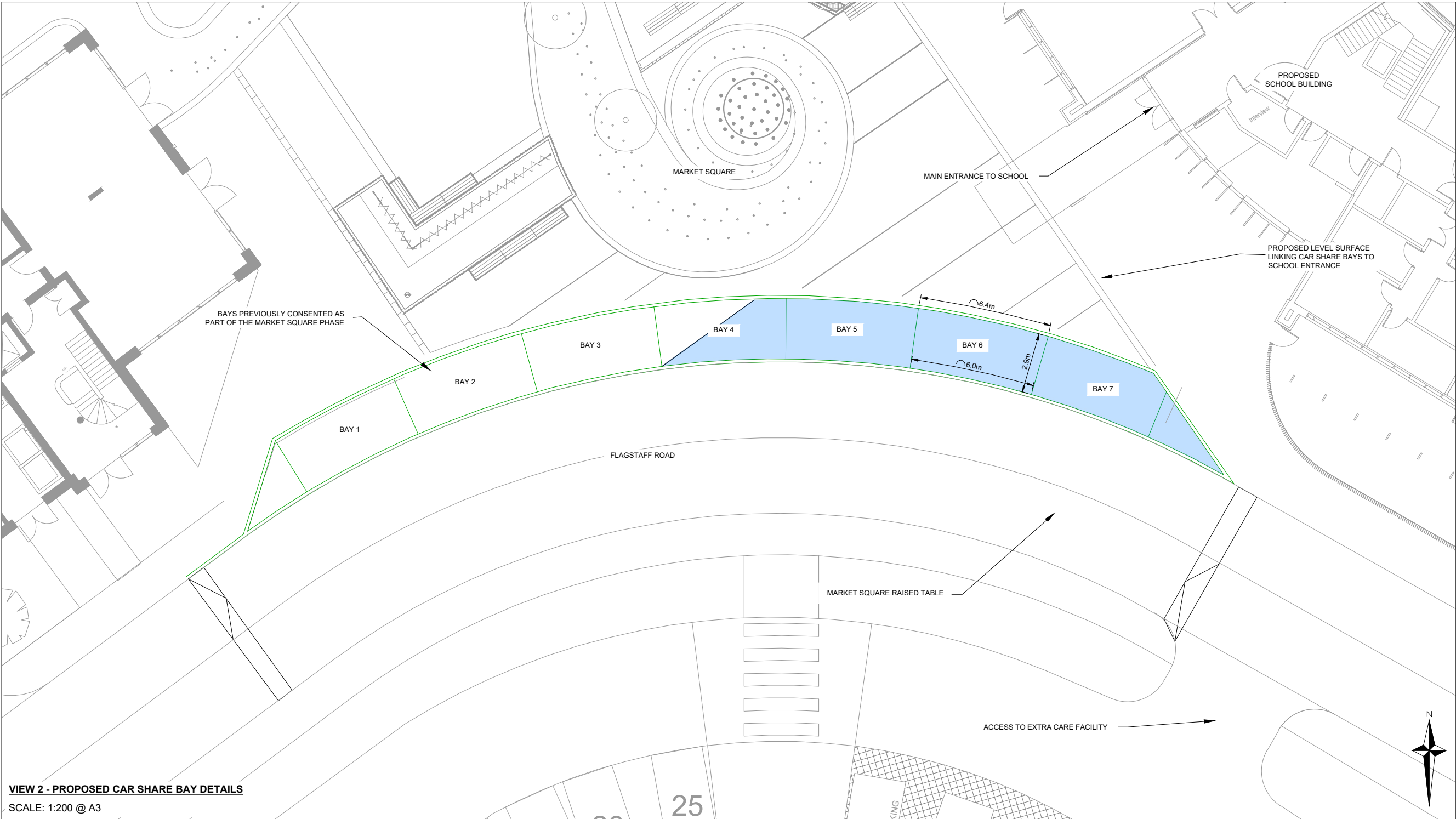
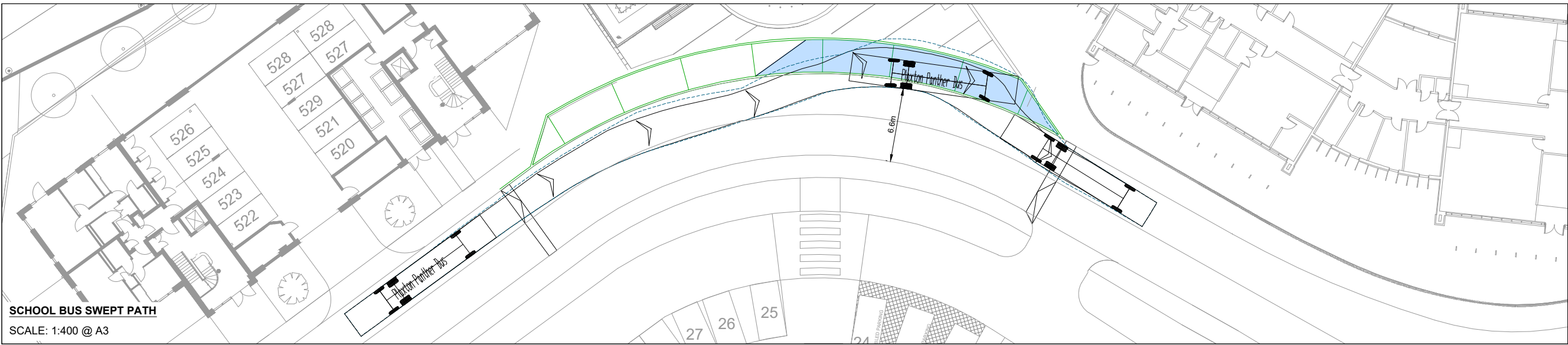
GREEN PARK VILLAGE, READING

Title :

SITE LOCATION PLAN

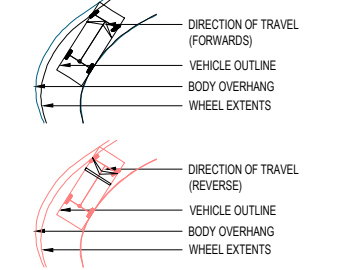
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Project Director :	HG	Date : APR 17
Status :	INFORMATION	

Drawing No.	4160914 - SK01	Rev	I1
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NOTES
1. THIS DRAWING SHALL NOT BE USED FOR CONSTRUCTION PURPOSES.

- KEY
- PARKING BAYS
 - RAISED TABLE RAMP
 - PARKING BAYS TO BE RESERVED FOR SCHOOL BUS WHEN REQUIRED



TECHNICAL DATA OF VEHICLE USED

Plaxton Panther Bus	
Overall Length	15.000m
Overall Width	2.500m
Overall Body Height	4.157m
Min Body Ground Clearance	0.397m
Track Width	2.500m
Lock to lock time	5.00s
Wall to Wall Turning Radius	12.500m

FIGURE 2

13	MASTERPLAN UPDATED	26/03/18	HG
12	REDUCTION IN NUMBER OF PARKING BAYS	19/03/18	HG
11	FIRST ISSUE	26/02/18	HG

Rev	Description	Date	Chkd
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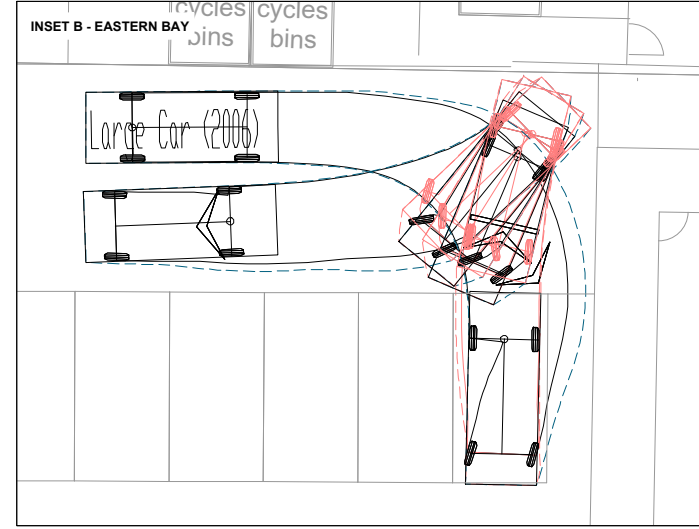
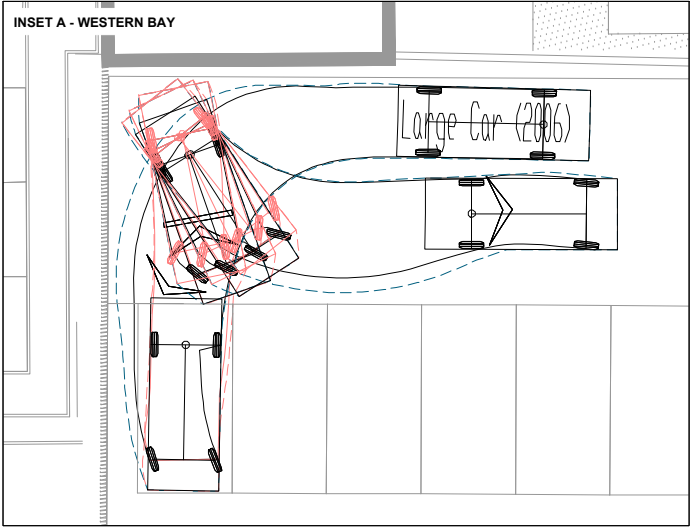
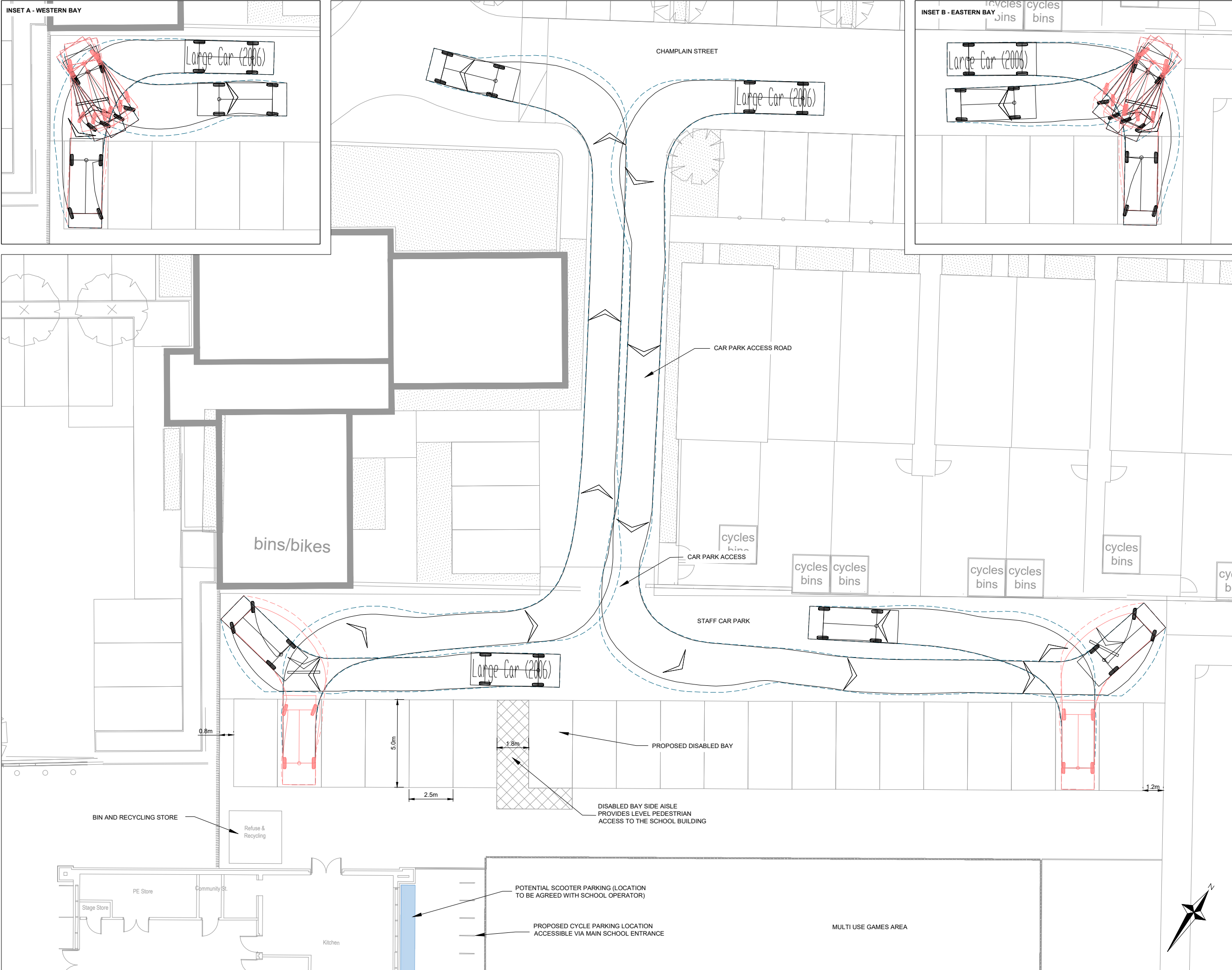


St Edward
Designed for life

Project :
GREEN PARK VILLAGE
READING

Title :
SCHOOL CAR SHARE BAYS

Project Engineer :	DK	Scale :	AS SHOWN @A3
Project Director :	HG	Date :	FEB 2018
Status :	FOR INFORMATION		



NOTES

1. THIS DRAWING SHALL NOT BE USED FOR CONSTRUCTION PURPOSES.

LEGEND

DIRECTION OF TRAVEL (FORWARDS)
VEHICLE OUTLINE
BODY OVERHANG
WHEEL EXTENTS

DIRECTION OF TRAVEL (REVERSE)
VEHICLE OUTLINE
BODY OVERHANG
WHEEL EXTENTS

TECHNICAL DATA OF VEHICLE USED

Large Car (2006)	Small Car (2006)
Overall Length	5.07m
Overall Width	1.87m
Overall Height	1.52m
Min Body Ground Clearance	0.20m
Max Track Width	1.83m
Lock-to-lock time	4.0s
Kerb to Kerb Turning Radius	9.90m

5.08
0.82 3.04

FIGURE 3a

13	MASTERPLAN UPDATED	26/03/18	HG
12	MASTERPLAN UPDATED	19/03/18	HG
11	FIRST ISSUE	26/02/18	HG

Rev	Description	Date	Chkd
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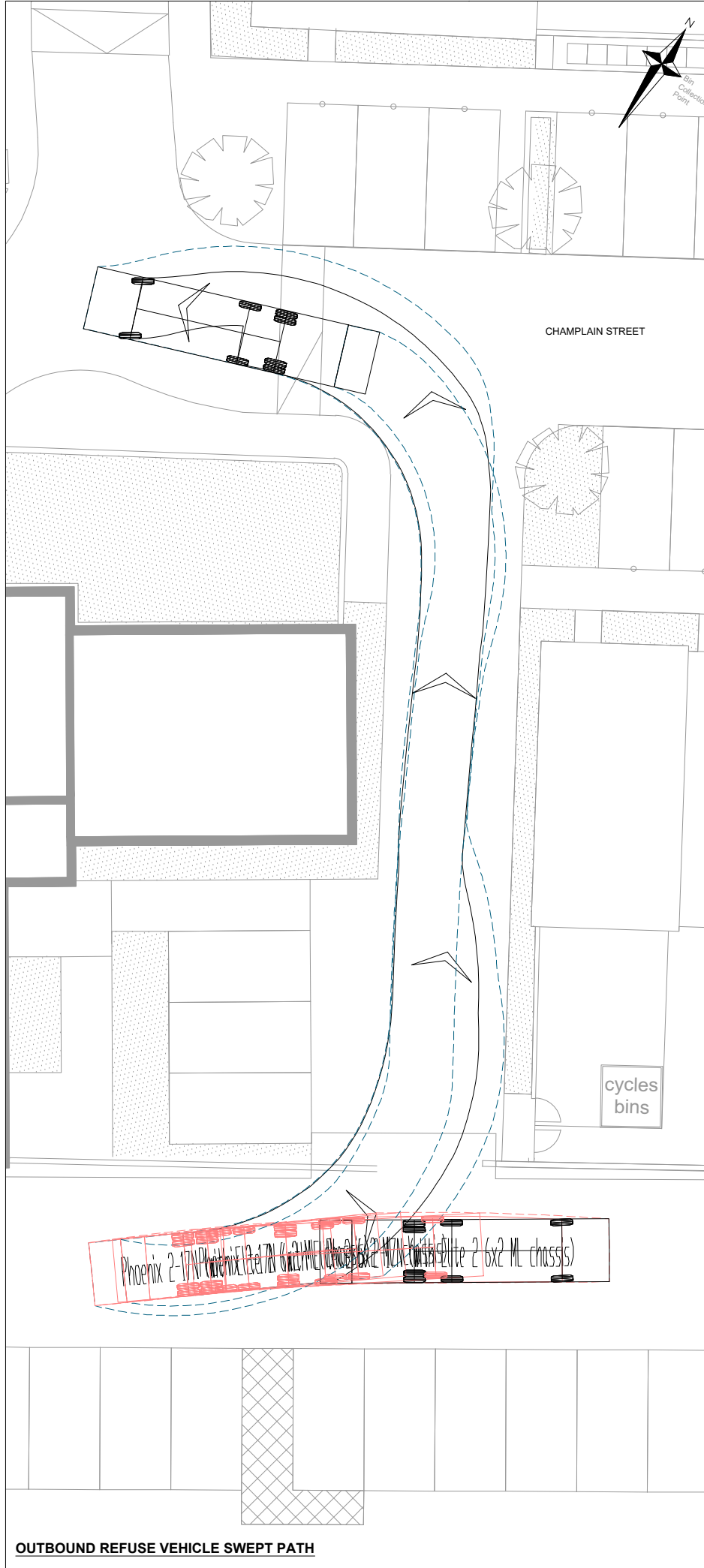
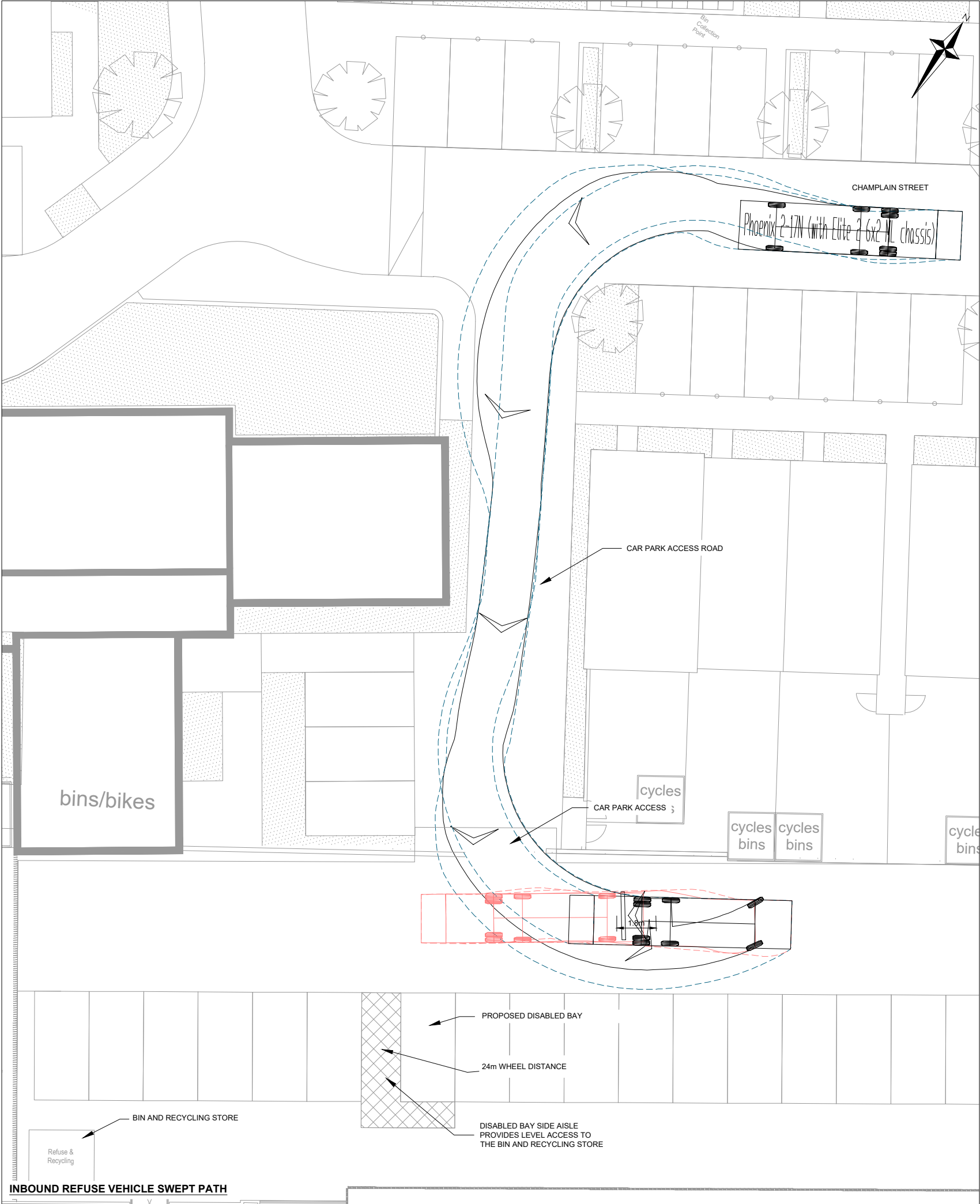
Client : **St Edward**

Project : **GREEN PARK VILLAGE READING**

Title : **STAFF CAR PARK SWEPT PATH ASSESSMENT**

Project Engineer :	DK	Scale :	1:200 @ A3
Project Director :	HG	Date :	FEB 2018
Status :	FOR INFORMATION		

Drawing No. 4160914-SK06



NOTES

1. THIS DRAWING SHALL NOT BE USED FOR CONSTRUCTION PURPOSES.

LEGEND

DIRECTION OF TRAVEL (FORWARDS)

VEHICLE OUTLINE

BODY OVERHANG

WHEEL EXTENTS

DIRECTION OF TRAVEL (REVERSE)

VEHICLE OUTLINE

BODY OVERHANG

WHEEL EXTENTS

TECHNICAL DATA OF VEHICLE USED

Phoenix 2-17N (with Elite 2 6x2 ML chassis)

Overall Length 10.195m

Overall Width 2.230m

Overall Body Height 3.695m

Min Body Ground Clearance 0.251m

Track Width 2.200m

Lock-to-lock time 4.00s

Kerb to Kerb Turning Radius 10.000m

FIGURE 3b

13	MASTERPLAN UPDATED	26/03/18	HG
12	MASTERPLAN UPDATED	19/03/18	HG
11	FIRST ISSUE	26/02/18	HG

Rev	Description	Date	Chkd

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Client : **St Edward**
Designed for life

Project : GREEN PARK VILLAGE READING

Title : REFUSE VEHICLE SWEEP PATH ASSESSMENT

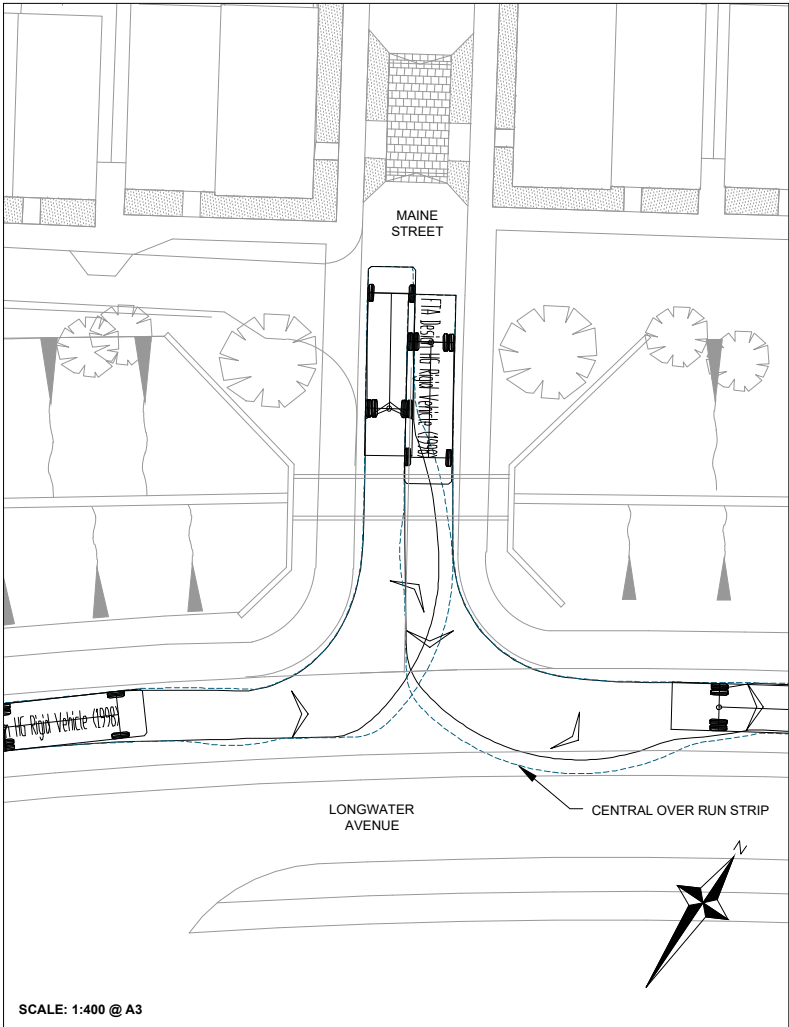
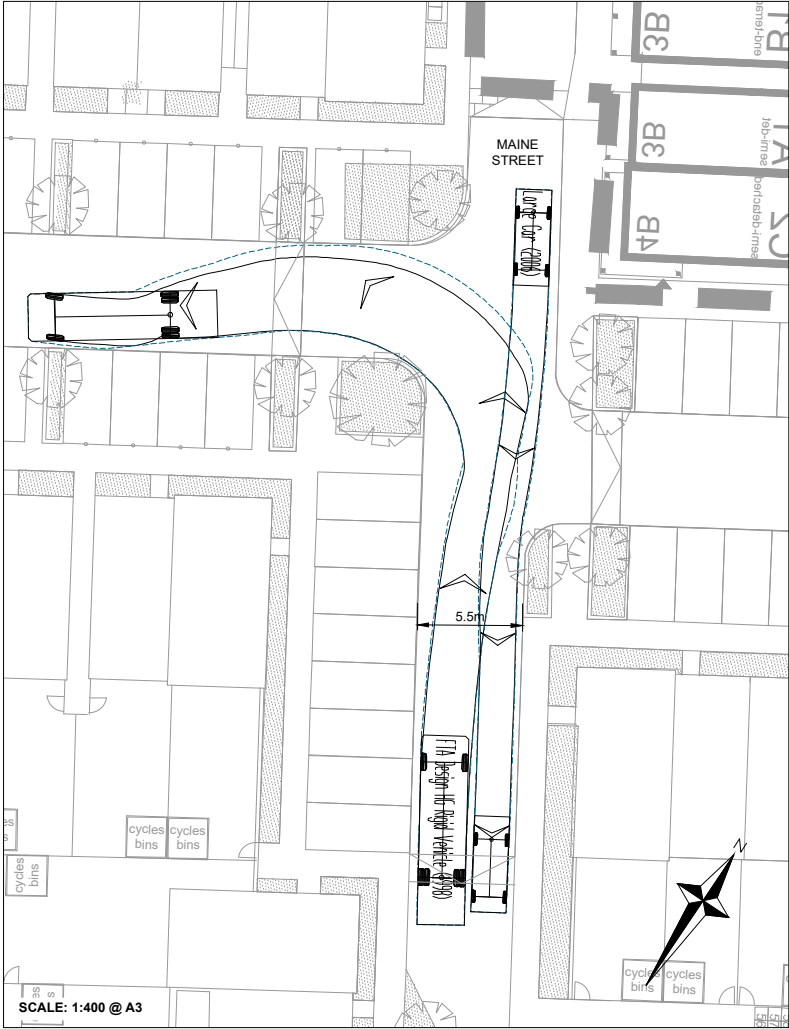
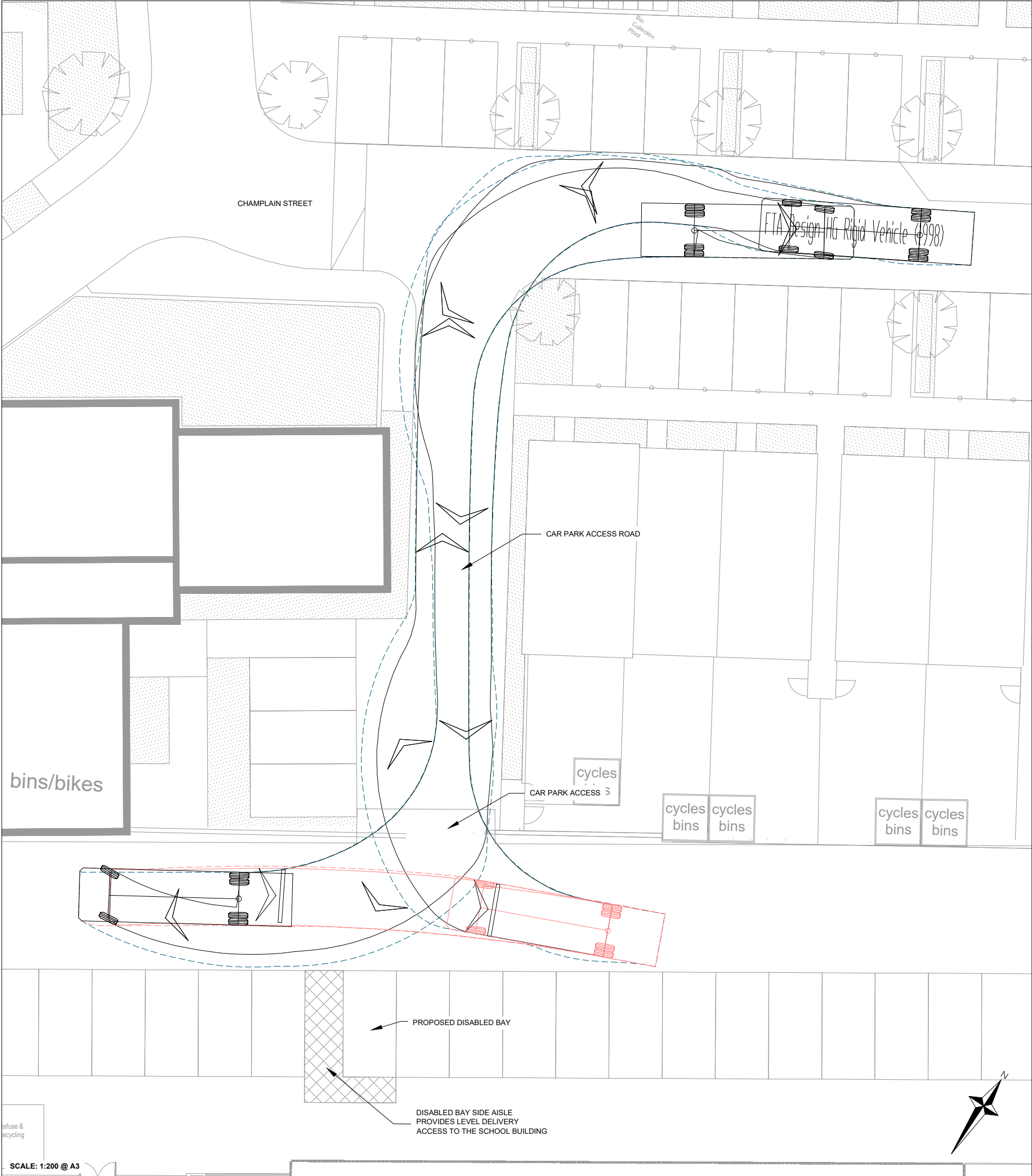
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Project Director : HG Date : FEB 2018

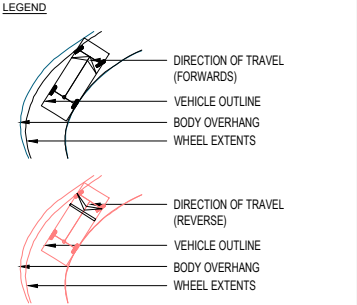
Status : FOR INFORMATION

Drawing No. 4160914-SK07

Rev 13



NOTES
1. THIS DRAWING SHALL NOT BE USED FOR CONSTRUCTION PURPOSES.



TECHNICAL DATA OF VEHICLE USED

FTA Design HG RIGID Vehicle (1998)	
Overall Length	10.000m
Overall Width	2.500m
Overall Body Height	3.640m
Min Body Ground Clearance	0.440m
Max Track Width	2.470m
Lock-to-lock time	3.00s
Kerb to Kerb Turning Radius	11.000m

FIGURE 3c

14	MASTERPLAN UPDATED	26/03/18	HG
13	MASTERPLAN UPDATED	19/03/18	HG
12	TRACKING UPDATED TO REDUCE IMPACT ON PLOT 11	01/03/18	HG
11	FIRST ISSUE	26/02/18	HG

Rev	Description	Date	Chkd
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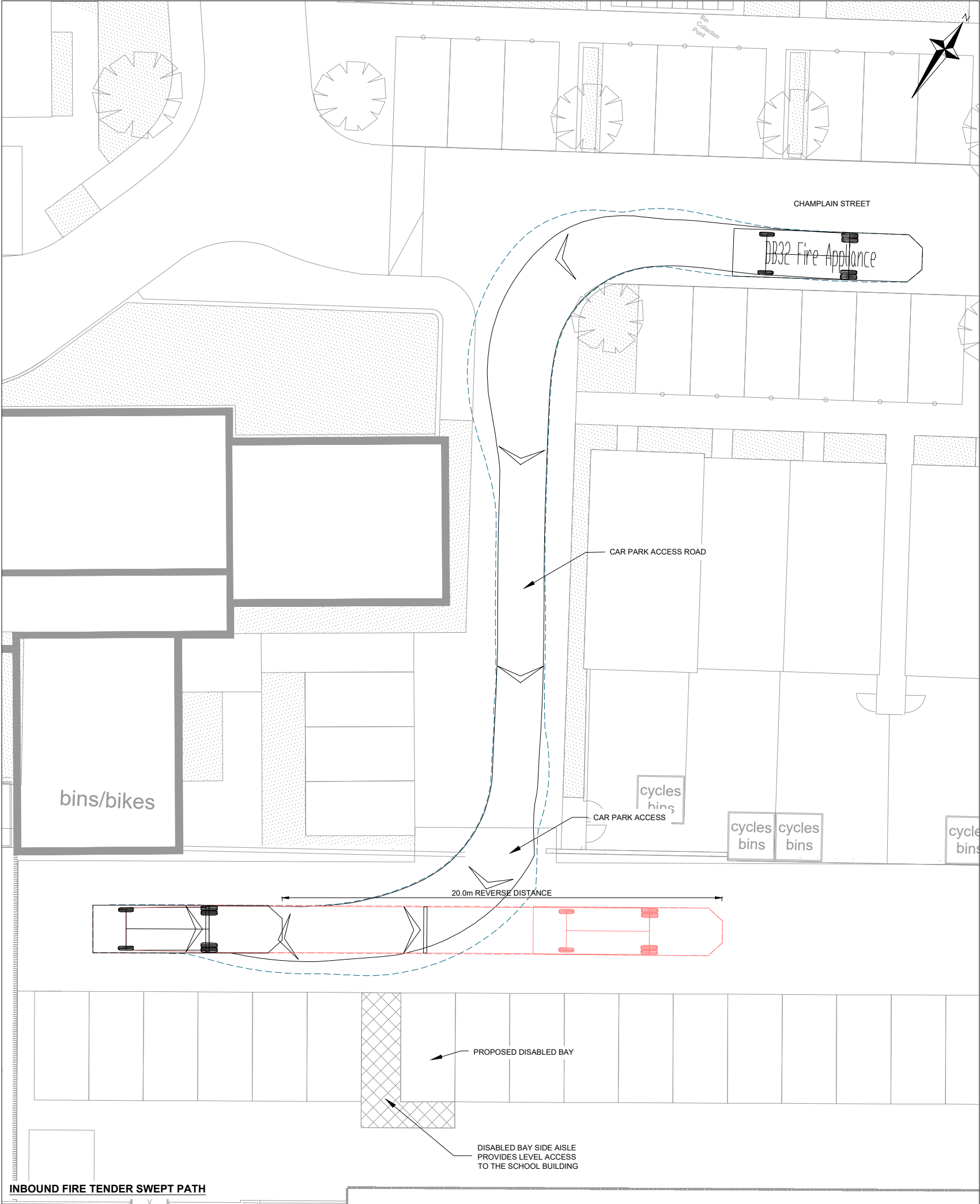
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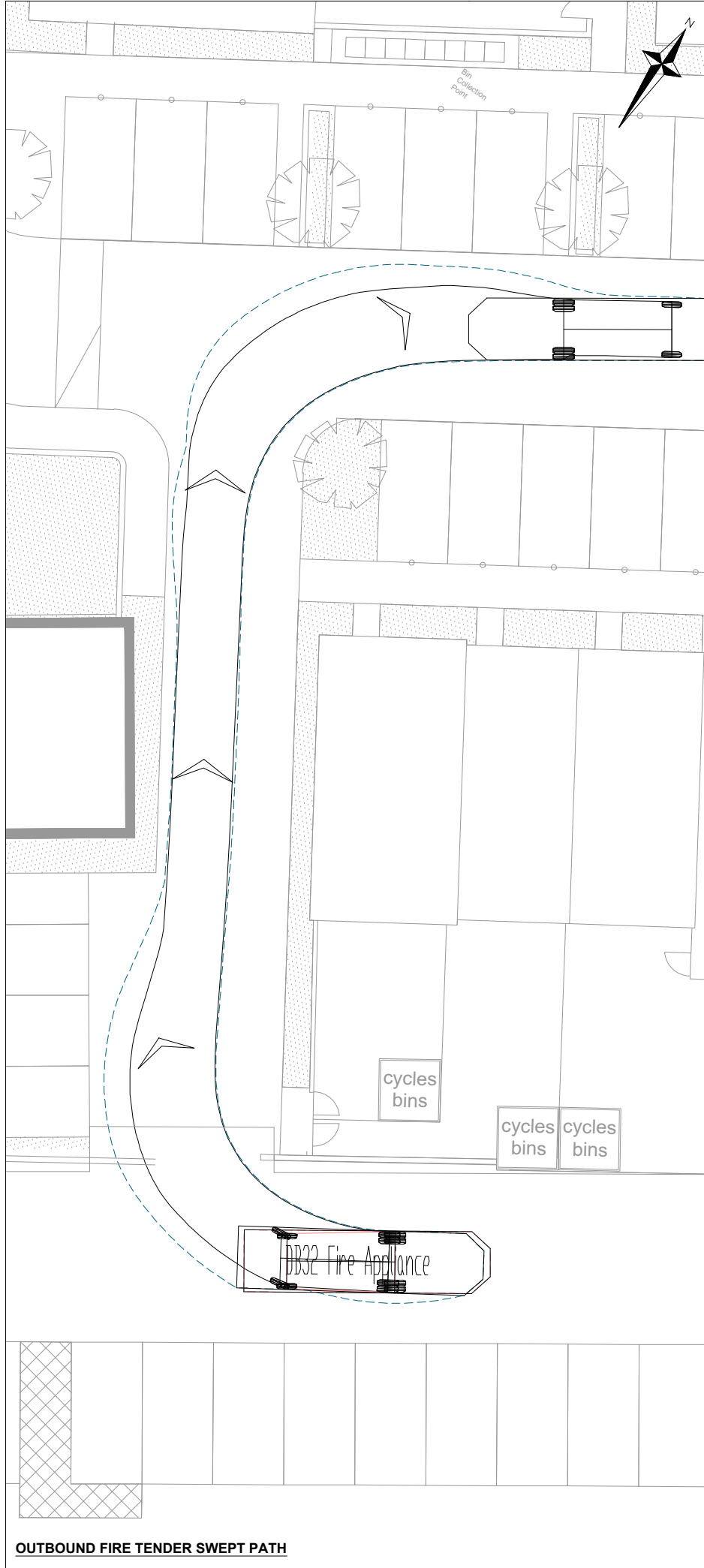
Project : GREEN PARK VILLAGE READING

Title : DELIVERY VEHICLE SWEPT PATH ASSESSMENT

Project Engineer :	DK	Scale :	AS SHOWN @ A3
Project Director :	HG	Date :	FEB 2018
Status :	FOR INFORMATION		



INBOUND FIRE TENDER SWEEP PATH



OUTBOUND FIRE TENDER SWEEP PATH

NOTES

1. THIS DRAWING SHALL NOT BE USED FOR CONSTRUCTION PURPOSES.

LEGEND

DIRECTION OF TRAVEL (FORWARDS)

VEHICLE OUTLINE

BODY OVERHANG

WHEEL EXTENTS

DIRECTION OF TRAVEL (REVERSE)

VEHICLE OUTLINE

BODY OVERHANG

WHEEL EXTENTS

TECHNICAL DATA OF VEHICLE USED

DB32 Fire Appliance

Overall Length	8.680m
Overall Width	2.100m
Overall Body Height	3.450m
Min Body Ground Clearance	0.330m
Max Track Width	2.120m
Lock to Lock Time	6.00s
Kerb to Kerb Turning Radius	7.910m

FIGURE 3d

12	MASTERPLAN UPDATED	26/03/18	HG
11	FIRST ISSUE	19/03/18	HG

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Client : **St Edward**
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Project : GREEN PARK VILLAGE READING

Title : FIRE TENDER SWEEP PATH ASSESSMENT

Project Engineer :	DK	Scale :	1:200 @ A3
Project Director :	HG	Date :	MAR 2018
Status :	FOR INFORMATION		

Drawing No. 4160914-SK09

Rev	12
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