



Matter 8: Transport

23 January 2019

# Cheltenham Local Plan Submission Examination On Behalf of Miller Homes

## Matter 8: Transport

*1 To what extent has the impact of proposals within the CP been assessed in accordance with the package of key transport and highway improvements in both the local and strategic networks proposed to accommodate the proposals in the JCS?*

*2 Do the proposals for new development in the CP comply with scenario DS7 in the evidence base to the JCS?*

*3 Does the CP include policies which adequately manage the delivery of development so that severe transport impacts do not arise?*

1. Miller Homes have considered the traffic effects of an allocation of circa 350 dwellings on site MD5 in isolation and with the addition of a 900 pupil secondary school on an adjacent site. As per GCC's approach and representations to the housing allocation on MD5 (EDO141), Miller Homes remain neutral on the relative merits of the school allocation on the adjoining land other than those previously set out. However, should the Inspector consider a combination of 350 dwellings on MD5 and an adjacent secondary school then we can confirm that development should not be prevented or refused on highways grounds as there would not be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would not be severe.
2. The conclusions to Miller Homes' Transport Statement, (RPS – M8 1) states,

5.1.13 "The Gloucester, Cheltenham and Tewkesbury Joint Core Strategy (JCS) Transport Evidence Base / Transport Strategy (referred to as Do Something 7) (DS7) preferred mitigation package for the A46 Bath Road (central Cheltenham) to A417 junction corridor includes:

- Leckhampton Lane - upgrade A46 / Leckhampton Lane priority junction, to include a dedicated right turn from A46 south into Leckhampton Lane (funded through developer contributions);
- Moorend Park Road - A46 Shurdington Road northbound approach to Moorend Park Road – additional highway space for right turning traffic by providing a longer stacking lane (funded through developer contributions); and
- Badgeworth Lane - A46 / Badgeworth Lane priority Junction – Signalisation of junction to provide improved access to/from Badgeworth (funded through ad hoc funding opportunities).

5.1.14 The JCS Transport Strategy helpfully confirms that the preferred mitigation package **"resolves delays along the Shurdington Road corridor"** and **"significantly benefit public transport specifically the operation of the 10 service within the A46 corridor"**.

- 5.1.15 The evidence base to the Cheltenham Plan includes a two phase Transport Assessment prepared by Arup.
- 5.1.16 The Phase One Transport Assessment (ED003) assesses the Cheltenham Plan against:
- The JCS Do Minimum scenario - Some 17 junctions were identified as requiring assessment in more detail in the Phase 2 Transport Assessment (ED004) - of these junctions two were on the A46 corridor (A46 Bath Road (central Cheltenham) to A417 junction) – the A46 / Leckhampton Lane and A46 / Church Lane junctions; and
  - The Do Something 7 scenario - A reduced number of 8 junctions were identified as requiring assessment in more detail in the Phase 2 transport assessment - none of these junctions were on the A46 corridor (A46 Bath Road (central Cheltenham) to A417 junction).
- 5.1.17 The Phase 2 Transport Assessment looks at the impact of the Cheltenham Plan against the JCS Do Minimum scenario. The Phase 2 analysis however provides no further analysis or testing against the Do Something 7 Scenario.
- 5.1.18 The Phase 2 Transport Assessment concludes that at the 17 junctions tested the results of the junction modelling show that mitigation is not required as a result of the proposed developments as the majority are already over capacity in the Do Minimum modelling scenario and are not significantly worsened by the development traffic. Those that aren't already over capacity in the Do Minimum are either not significantly impacted by the development traffic or remain within capacity in the Do Something scenario. No mitigations options have been suggested.
- 5.1.19 In consultation with the highway authorities (Gloucestershire County Council and Highways England a detailed microsimulation traffic model (Paramics) of the A46 Shurdington Road corridor in south west Cheltenham, including Leckhampton and the A417) has been developed to test the impact of the proposed Leckhampton development.
- 5.1.20 The “with proposed development” modelling undertaken has allowed for the site access strategy summarised in Section 3 of this report and the following improvement schemes on the A46 corridor:
- A46 Shurdington Road/ Moorend Park Road junction –additional improvement on top of the committed improvement; and

- A46 Shurdington Lane/ Leckhampton Lane junction - ghost island right turn arrangement.

- 5.1.21 Both of the improvement schemes sit comfortably with the preferred mitigation package for Corridor 9 – A46 Bath Road (central Cheltenham) to A417 junction – as set out in the JCS Transport Strategy (So Something 7).
- 5.1.22 For a development proposal of 350 dwellings and a secondary school, the modelling results indicate that as a result of the mitigation measures, there will be an improvement to network conditions on the A46 corridor with a reduction in journey times and queuing compared to the opening year base scenario.
- 5.1.23 Further, the above results accord with the conclusions of the JCS Transport Strategy which confirms that the preferred mitigation package “**resolves delays along the Shurdington Road corridor**” and “**significantly benefit public transport specifically the operation of the 10 service within the A46 corridor**”
- 5.1.24 Against this background, it is concluded that traffic generated by an additional 100 dwellings (total of some 350 dwellings) and a secondary school can be accommodated satisfactorily on the A46 Shurdington Road corridor without the residual cumulative impacts being severe.”

Appendix RPS – M8 – 1  
Transport Assessment



Land at Shurdington Road, Leckhampton (Policy MD5)

Transport Statement for Hearing Session – Matters 3 and 8

Client: Miller Homes

i-Transport Ref: MG/BT/EF/ITB12049-012R

Date: 21 January 2019

Land at Shurdington Road, Leckhampton (Policy MD5)

Transport Statement for Hearing Session – Matters 3 and 8

Client: Miller Homes

i-Transport Ref: MG/BT/EF/ITB12049-012R

Date: 21 January 2019

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# Quality Management

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## SECTION 1 Introduction

- 1.1.1 This Transport Statement has been prepared by i-Transport LLP on behalf of Miller Homes who controls land to the south of the A46 Shurdington Road, Leckhampton.
- 1.1.2 The new Cheltenham Plan allocates, under Policy MD5: Leckhampton, approximately 250 dwellings and a secondary school on land controlled by Miller.
- 1.1.3 This document assesses the main transport impacts associated with allocating an additional 100 dwellings (total of some 350 dwellings) and a 900 pupil secondary school on land at / adjacent to the Policy MD5 allocation at Leckhampton should that be considered.
- 1.1.4 i-Transport has held extensive consultation and pre application discussions with the local highway authority, Gloucestershire County Council, regarding the traffic modelling approach, proposed access arrangements and off site highway improvements. This has informed the contents of this document.
- 1.1.5 Section 9 of the revised National Planning Policy Framework (updated July 2018) discusses promoting sustainable transport. Paragraphs 108 – 111 sets out transport matters when considering development proposals.
- 1.1.6 Paragraph 108 states that:

***“In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:***

***a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;***

***b) safe and suitable access to the site can be achieved for all users; and***

***c) 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.”***

- 1.1.7 Paragraph 109 states that:

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

1.1.8 The remainder of this transport statement is set out in the following sections:

- Section 2 - Opportunities to Promote Sustainable Transport Modes;
- Section 3 – Site Access Arrangements;
- Section 4 – Traffic Impact; and
- Section 5 – Summary and Conclusions.

## SECTION 2 Opportunities to Promote Sustainable Transport Modes

### 2.1 Walking

- 2.1.1 Paragraph 2.3 of the Design Manual for Bridges TA91/05 “Provision for Non-Motorised Users” states:

***“Walking is used to access a wide variety of destinations including educational facilities, shops, and places of work normally within a range of up to 2 miles. Walking and rambling can also be undertaken as a leisure activity, often over longer distances”***

- 2.1.2 The National Travel Survey 2017 (released September 2018) confirms that some 81% of all trips under 1 mile (circa 1.6km) are walk trips, whilst walking accounts for some 30% of all trips between 1 and under 2 miles (circa 1.6km – 3.2km). The 1.6km distance is reflected in recent Chartered Institution of Highways and Transportation (CIHT) guidance ‘Planning for Walking’ (2015) which states:

***“Across Britain, approximately 80% of journeys shorter than 1 mile are made wholly on foot – something that has changed little in 30 years. The main reason for the decline in walking is the fall in the total number of journeys shorter than 1 mile, which has halved in thirty years. It is not that people are less likely to make short journeys on foot but rather that fewer of the journeys they make can be accomplished on foot. If destinations are within walking distance, people are more likely to walk if walking is safe and comfortable and the environment is attractive.”***

- 2.1.3 Appendix A shows that the site is within a walking catchment of a number of existing / proposed local facilities and destinations, including:

#### Within 1.6km Catchment

- Warden Hill local facilities and services including shops and schools;
- Leckhampton local facilities;
- University of Gloucestershire;
- Proposed Secondary School (Policy MD5);

#### Within 1.6km – 3.2km Catchment

- Cheltenham town centre; and
- Cheltenham General Hospital.

2.1.4 There is a wide range of existing facilities and services within an acceptable walking distance of the site. The provision of a new secondary school adjacent to the new homes and thus within a short walking distance for future residents, adds further to the transport sustainability credentials of the site.

2.1.5 There are routes between the site and the above key destinations that are either satisfactory in their existing form or capable of improvement (secured by condition or S106 obligation) meaning that there is the opportunity for many future residents to walk to these local facilities and destinations.

## 2.2 Cycling

2.2.1 In terms of cycling journeys, the National Travel Survey sets out that the average journey distance by bike is some 4.4km. Local Transport Note 02/08 'Cycle Infrastructure Design' sets out typical cycle trip distances at paragraph 1.5.1:

***“Urban networks are primarily for local journeys. In common with other modes, many utility cycle journeys are under three miles (ECF, 1998), although, for commuter journeys, a trip distance of over five miles is not uncommon. Novice and occasional leisure cyclists will cycle longer distances where the cycle ride is the primary purpose of their journey. A round trip on a way-marked leisure route could easily involve distances of 20 to 30 miles. Experienced cyclists will often be prepared to cycle longer distances for whatever journey purpose.”***

2.2.2 Appendix B shows that the site is within 5 miles (8km) cycling catchment of a number of destinations, including:

- All of Cheltenham including Warden Hill, Leckhampton and the town centre;
- Brockworth;
- Churchdown; and
- Bishop's Cleeve.

2.2.3 There are routes between the site and the above key destinations that are either satisfactory in their existing form or capable of improvement (secured by condition or S106 obligation) meaning that there is opportunity for many future residents to cycle to these destinations.

## 2.3 Public Transport

- 2.3.1 The site lies adjacent to the A46 Shurdington Road and is highly accessible by bus. Stagecoach's high frequency Service 10 bus service (Cheltenham – Shurdington – Brockworth – Gloucester – Lower Tuffley) routes along Shurdington Road and directly past the site, offering an existing 10-minute frequency service Monday to Friday (every 12 minutes on Saturday and every 30 minutes on a Sunday). The Service 10 timetable is reproduced at Appendix C.
- 2.3.2 The proposed development will deliver high quality bus stops on the A46 ensuring that all residents will be within a reasonable walking distance of Stagecoach Service 10.
- 2.3.3 Stagecoach's Route 10 bus service therefore offers an excellent level of bus service (available from first occupation) and future residents will have the opportunity to access Cheltenham town centre, Shurdington, Brockworth, Gloucester City Centre and Lower Tuffley by public transport.
- 2.3.4 The site may also be able to make contribution to delivering the Cheltenham South West Transport Strategy (secured by condition or S106).

## 2.4 Travel Plan

- 2.4.1 The site will also deliver a Travel Plan (secured by condition or S106). The primary purpose of the Travel Plan will be to identify opportunities for the effective promotion and delivery of sustainable transport and home working, to reduce the demand for travel by less sustainable modes.

## 2.5 Summary

- 2.5.1 In transport terms, the site is highly sustainable with excellent opportunities to promote sustainable transport modes, being a good location to accommodate some 350 dwellings and a secondary school.

## SECTION 3      Site Access Arrangements

- 3.1.1 The site access strategy for the proposed development of 350 dwellings has been discussed and agreed with GCC as part of the pre application discussions.
- 3.1.2 Two points of vehicular access to the site are proposed from the A46 Shurdington Road. It is envisaged that the secondary school will have vehicular access from Kidnappers Lane.
- 3.1.3 It is proposed that the western Shurdington Road access will include the realignment to the east of the A46/ Kidnappers Lane junction (closure of the existing Kidnappers Lane junction) within the MD5 allocation area and will take the form of a signal-controlled junction. This is an appropriate access arrangement, providing sufficient capacity and pedestrian crossing provision, to accommodate the proposed residential development (up to 350 dwellings) and a secondary school.
- 3.1.4 The proposed eastern Shurdington Road access will take the form of a priority junction (priority along the A46) and a nearby pedestrian crossing.
- 3.1.5 Additional pedestrian / cycle links to Kidnappers Lane are also envisaged.
- 3.1.6 The Shurdington Road site access proposals have been the subject of design compliance checks and Stage 1 Road Safety Audits which do not raise any design and highway safety concerns.
- 3.1.7 The local highway authority, Gloucestershire County Council (GCC), has previously agreed to similar access proposals from Shurdington Road.
- 3.1.8 In summary, safe and suitable access to the site can be achieved from the A46 Shurdington Road and Kidnappers Lane, capable of accommodating some 350 dwellings and a secondary school.

## SECTION 4      Traffic Impact

### 4.1      Joint Core Strategy

4.1.1 The Gloucester, Cheltenham and Tewkesbury Joint Core Strategy (JCS) Transport Evidence Base / Strategy discusses the assessment process using the Central Severn Vale Model SATURN Traffic Model. Stage 2 is the JCS Do Minimum scenario and includes all unallocated objectively Assessed Need JCS Growth and the JCS Proposed Strategic Allocations, whilst Stage 3 is the JCS Do Something Scenario and includes all of the Do Minimum Development and the JCS Transport Strategy (this is referred to as Do Something 7). The Cheltenham District Capacity of 5,611 dwellings (to be delivered up to 2031) has been included as OAN Growth within the traffic modelling.

4.1.2 Eleven strategic travel corridors were identified to assess the strategic impacts of the land use scenarios outlined within the JCS. Corridor 9 – A46 Bath Road (central Cheltenham) to A417 junction is the most relevant to the MD5 Leckhampton site. The preferred mitigation package for Corridor 9 includes:

- Leckhampton Lane - upgrade A46 / Leckhampton Lane priority junction, to include a dedicated right turn from A46 south into Leckhampton Lane (funded through developer contributions);
- Moorend Park Road - A46 Shurdington Road northbound approach to Moorend Park Road – additional highway space for right turning traffic by providing a longer stacking lane (funded through developer contributions); and
- Badgeworth Lane - A46 / Badgeworth Lane priority Junction – Signalisation of junction to provide improved access to/from Badgeworth (funded through ad hoc funding opportunities).

4.1.3 The Corridor 9 Ratios of Flow to capacity for the Do Minimum and Do Something 7 scenarios (JCS Transport Strategy) and this Figure is reproduced below for ease of reference.



Figure 67 – Corridor 9 Ratios of Flow to Capacity – DM and DS7

Junction Name	Ratios of Flow to Capacity			
	AM Peak		PM Peak	
	Do Minimum	Do Something 7	Do Minimum	Do Something 7
A46 / A417 Shurdington Rd Rbt	107.7%	104.0%	101.2%	102.9%
A46 / Badgeworth Lane	120.8%	102.0%	93.4%	99.2%
A46 Shurdington Rd / Leckhampton Lane	87.6%	76.2%	99.8%	100.7%
A46 Shurdington / Up Hatherley Way	93.9%	70.0%	72.8%	68.9%
A46 Shurdington Rd / Moorend Park Rd	97.4%	91.5%	79.6%	88.8%
A46 Shurdington Rd / Bath Rd Rbt	41.0%	39.5%	57.3%	56.9%
A46 Bath Rd / Thirlestaine Rd	95.5%	77.2%	84.8%	78.1%
A46 Bath Rd / Sandford Rd	89.5%	82.2%	87.3%	83.4%
A46 Bath Rd / Oriol Road	53.8%	43.6%	35.3%	31.4%

4.1.4 The JCS Transport Evidence Base / Strategy (paragraph 6.10.8) confirms that:

***“The outcome of these changes resolves delays along the Shurdington Road corridor. There remain minor issues during both peaks for the A417 / A46 junction at both A46 approaches. Possible signalisation of these approaches may mitigate the scale of delay predicted by the model.”***

4.1.5 Further, the JCS Transport Evidence Base / Strategy (paragraph 6.10.9) confirms that:

***“The improvements will significantly benefit public transport specifically the operation of the 10 service within the A46 corridor by reducing the risk of journey time uncertainty.”***

4.1.6 The JCS Transport Strategy therefore helpfully confirms that the preferred mitigation package **“resolves delays along the Shurdington Road corridor”** and **“significantly benefit public transport specifically the operation of the 10 service within the A46 corridor”**. The “minor issues” on the A46 approaches to the A417 / A46 junction can either be dealt with through refined modelling and / or iterative design of cost effective signalisation of both these approaches.

## 4.2 Cheltenham Plan Transport Assessment

4.2.1 The evidence base to the Cheltenham Plan includes a two phase Transport Assessment prepared by Arup.

4.2.2 The Phase 1 Transport Assessment looks at two development options (Options A and B) for the Cheltenham Plan. The difference between Options A and B is the proposed land use of the

MD5 Leckhampton site - Option A is proposed to be housing only incorporating 370 dwellings, whilst Option B envisages a secondary school of 900 pupils and 250 residential units.

4.2.3 Arup used the Central Severn Vale (CSV) SATURN strategic highway model as provided by GCC to test the impact of both development options. Development impacts were assessed on top of two scenarios:

- The JCS Do Minimum scenario (including all unallocated objectively Assessed Need JCS Growth and the JCS Proposed Strategic Allocations); and
- The JCS Do Something Scenario (including all of the Do Minimum Development and the JCS Transport Strategy (this is referred to as Do Something 7 scenario in the JCS and Arup report).

4.2.4 The Phase 1 Transport Assessment concluded that for both development options A and B:

- When assessed against the JCS Do Minimum scenario, some 19 junctions (subsequently reduced to 17 junctions) were identified as requiring assessment in more detail in the Phase 2 Transport Assessment. Of these junctions, two were on the A46 corridor (A46 Bath Road (central Cheltenham) to A417 junction) – the A46 / Leckhampton Lane and A46 / Church Lane junctions.
- When assessed against the Do Something 7 scenario, a reduced number of 8 junctions were identified as requiring assessment in more detail in the Phase 2 transport assessment. None of these junctions were on the A46 corridor (A46 Bath Road (central Cheltenham) to A417 junction).

4.2.5 The Phase 2 Transport Assessment looks at the impact of the Cheltenham Plan against the JCS Do Minimum scenario. The Phase 2 analysis however provides no further analysis or testing against the Do Something 7 Scenario.

4.2.6 The Phase 2 Transport Assessment concludes that:

***“At the 17 junctions tested, the results of the junction modelling show that mitigation is not required as a result of the proposed developments as the majority are already over capacity in the Do Minimum modelling scenario and are not significantly worsened by the development traffic. Those that aren’t already over capacity in the Do Minimum are either not significantly impacted by the development traffic or remain within capacity in the Do Something scenario.*”**

***No mitigation options have been suggested as the junctions would need to be mitigated for the Do Minimum traffic flows first.”***

### 4.3 Land at Shurdington Road, Leckhampton

- 4.3.1 The highway authorities (Gloucestershire County Council and Highways England) along with i-Transport / Miller have agreed that a detailed microsimulation traffic model (Paramics) of the A46 Shurdington Road corridor in south west Cheltenham, including Leckhampton and the A417) is the most appropriate method for assessing development traffic impacts and as such has been developed.
- 4.3.2 A comprehensive suite of traffic surveys were undertaken in November 2016 and the base traffic model enables an accurate representation of the 2016 base traffic and network conditions. The model has used the cordon matrices for the study area from the CSV SATURN strategic highway model. GCC has reviewed and agreed to the 2016 base traffic model.
- 4.3.3 The “with proposed development” (350 dwellings and secondary school) modelling undertaken has allowed for the site access strategy summarised in Section 3 of this report and the following improvement schemes on the A46 corridor.

#### A46 Shurdington Road/ Moorend Park Road Junction

- 4.3.4 There is already a committed improvement scheme at the A46 Shurdington Road / Moorend Park Road junction associated with the Land West of Farm Lane development. i-Transport has undertaken further analysis, in consultation with GCC, which has identified additional improvements within the highway boundary on top of the committed scheme which include:
- Extension of the ahead and left turn lanes on the A46 northbound approach to create a longer narrower two-lane approach before flaring to form three lanes; and
  - The scheme also includes a left turn filter arrow on the A46 northbound and moving pedestrian stage to stage two to avoid phase isolation on termination of the arm.

#### A46 Shurdington Lane/ Leckhampton Lane Junction

- 4.3.5 i-Transport has undertaken design work, in consultation with GCC, for an upgrade to the existing A46 Shurdington Road/ Leckhampton Lane priority junction to provide a ghost island right turn arrangement within the highway boundary. This will enable vehicles turning right into Leckhampton Lane to wait safely without impeding northbound movements on the A46 Shurdington Road.

- 4.3.6 Both of the above proposed improvement schemes have been the subject of Stage 1 Road Safety Audits which do not raise any design and safety concerns.
- 4.3.7 Both of the improvement schemes sit comfortably with the preferred mitigation package for Corridor 9 – A46 Bath Road (central Cheltenham) to A417 junction – as set out in the JCS Transport Strategy (So Something 7).
- 4.3.8 Average journey times have been taken from the S-Paramics development opening year model for the A46 corridor between the A40 (town centre) and the A417 - see summary below.

	Base	350 dwellings and Secondary School With Proposed Highway Improvements
<b>AM Peak</b>		
A46 Southbound: A40 to A417	13:54	10:53
A46 Northbound: A417 to A40	14:03	13:04
<b>PM Peak</b>		
A46 Southbound: A40 to A417	14:08	13:39
A46 Northbound: A417 to A40	14:36	10:55

Note: this assessment has used vehicular trip rates for the proposed residential use which are higher than used in the Cheltenham Plan or JCS transport assessments and as such the analysis is robust

- 4.3.9 For a development proposal of 350 dwellings and a secondary school, the modelling results indicate that as a result of the mitigation measures, there will be an improvement to network conditions on the A46 corridor with a reduction in journey times and queuing compared to the opening year base scenario.
- 4.3.10 Further, the above results accord with the conclusions of the JCS Transport Strategy which confirms that the preferred mitigation package “**resolves delays along the Shurdington Road corridor**” and “**significantly benefit public transport specifically the operation of the 10 service within the A46 corridor**”.
- 4.3.11 Against this background, it is concluded that traffic generated by some 350 dwellings and a secondary school can be accommodated satisfactorily on the A46 Shurdington Road corridor without the residual cumulative impacts being severe.

## SECTION 5      **Summary and Conclusions**

- 5.1.1 This Transport Statement has been prepared by i-Transport LLP on behalf of Miller Homes who controls land to the south of the A46 Shurdington Road, Leckhampton.
- 5.1.2 The new Cheltenham Plan allocates, under Policy MD5: Leckhampton, approximately 250 dwellings and a secondary school on land controlled by Miller. This document assesses the main transport impacts associated with allocating an additional 100 dwellings (total of some 350 dwellings) and a secondary school on land at / adjacent to the Policy MD5 allocation at Leckhampton.
- 5.1.3 i-Transport has held extensive consultation and pre application discussions with the local highway authority, Gloucestershire County Council, regarding the traffic modelling approach, proposed access arrangements and off site highway improvements.

### **Opportunities to Promote Sustainable Transport Modes**

- 5.1.4 There is a wide range of existing facilities and services within an acceptable walking distance of the site. The provision of a new secondary school adjacent to the new homes and thus within a short walking distance for future residents, adds further to the transport sustainability credentials of the site.
- 5.1.5 A number of destinations are within a reasonable cycle distance of the site including:
- All of Cheltenham including Warden Hill, Leckhampton and the town centre;
  - Brockworth;
  - Churchdown; and
  - Bishop's Cleeve.
- 5.1.6 The site lies adjacent to the A46 Shurdington Road and is highly accessible by bus. Stagecoach's high frequency Service 10 bus service (Cheltenham – Shurdington – Brockworth – Gloucester – Lower Tuffley) routes along Shurdington Road and directly past the site, offering an existing 10-minute frequency service Monday to Friday (every 12 minutes on Saturday and every 30 minutes on a Sunday). The proposed development will deliver high quality bus stops on the A46 ensuring that all residents will be within a reasonable walking distance of Stagecoach Service 10.
- 5.1.7 The site will also deliver a Travel Plan (secured by condition or S106).

- 5.1.8 In transport terms, the site is highly sustainable with excellent opportunities to promote sustainable transport modes, being a good location to accommodate some 350 dwellings and a secondary school.

#### Site Access Arrangements

- 5.1.9 The site access strategy for the proposed development of 350 dwellings has been discussed and agreed with GCC as part of the pre application discussions.
- 5.1.10 Two points of vehicular access to the site are proposed from the A46 Shurdington Road. It is envisaged that the secondary school will have vehicular access from Kidnappers Lane.
- 5.1.11 Additional pedestrian / cycle links to Kidnappers Lane are also envisaged.
- 5.1.12 Safe and suitable access to the site can be achieved from the A46 Shurdington Road and Kidnappers Lane, capable of accommodating some 350 dwellings and a secondary school.

#### Traffic Impact

- 5.1.13 The Gloucester, Cheltenham and Tewkesbury Joint Core Strategy (JCS) Transport Evidence Base / Transport Strategy (referred to as Do Something 7) preferred mitigation package for the A46 Bath Road (central Cheltenham) to A417 junction corridor includes:
- Leckhampton Lane - upgrade A46 / Leckhampton Lane priority junction, to include a dedicated right turn from A46 south into Leckhampton Lane (funded through developer contributions);
  - Moorend Park Road - A46 Shurdington Road northbound approach to Moorend Park Road – additional highway space for right turning traffic by providing a longer stacking lane (funded through developer contributions); and
  - Badgeworth Lane - A46 / Badgeworth Lane priority Junction – Signalisation of junction to provide improved access to/from Badgeworth (funded through ad hoc funding opportunities).
- 5.1.14 The JCS Transport Strategy helpfully confirms that the preferred mitigation package “**resolves delays along the Shurdington Road corridor**” and “**significantly benefit public transport specifically the operation of the 10 service within the A46 corridor**”.
- 5.1.15 The evidence base to the Cheltenham Plan includes a two phase Transport Assessment prepared by Arup.

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- The JCS Do Minimum scenario - Some 17 junctions were identified as requiring assessment in more detail in the Phase 2 Transport Assessment - of these junctions two were on the A46 corridor (A46 Bath Road (central Cheltenham) to A417 junction) – the A46 / Leckhampton Lane and A46 / Church Lane junctions; and
- The Do Something 7 scenario - A reduced number of 8 junctions were identified as requiring assessment in more detail in the Phase 2 transport assessment - none of these junctions were on the A46 corridor (A46 Bath Road (central Cheltenham) to A417 junction).

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5.1.19 In consultation with the highway authorities (Gloucestershire County Council and Highways England) a detailed microsimulation traffic model (Paramics) of the A46 Shurdington Road corridor in south west Cheltenham, including Leckhampton and the A417) has been developed to test the impact of the proposed Leckhampton development.

5.1.20 The “with proposed development” modelling undertaken has allowed for the site access strategy summarised in Section 3 of this report and the following improvement schemes on the A46 corridor:

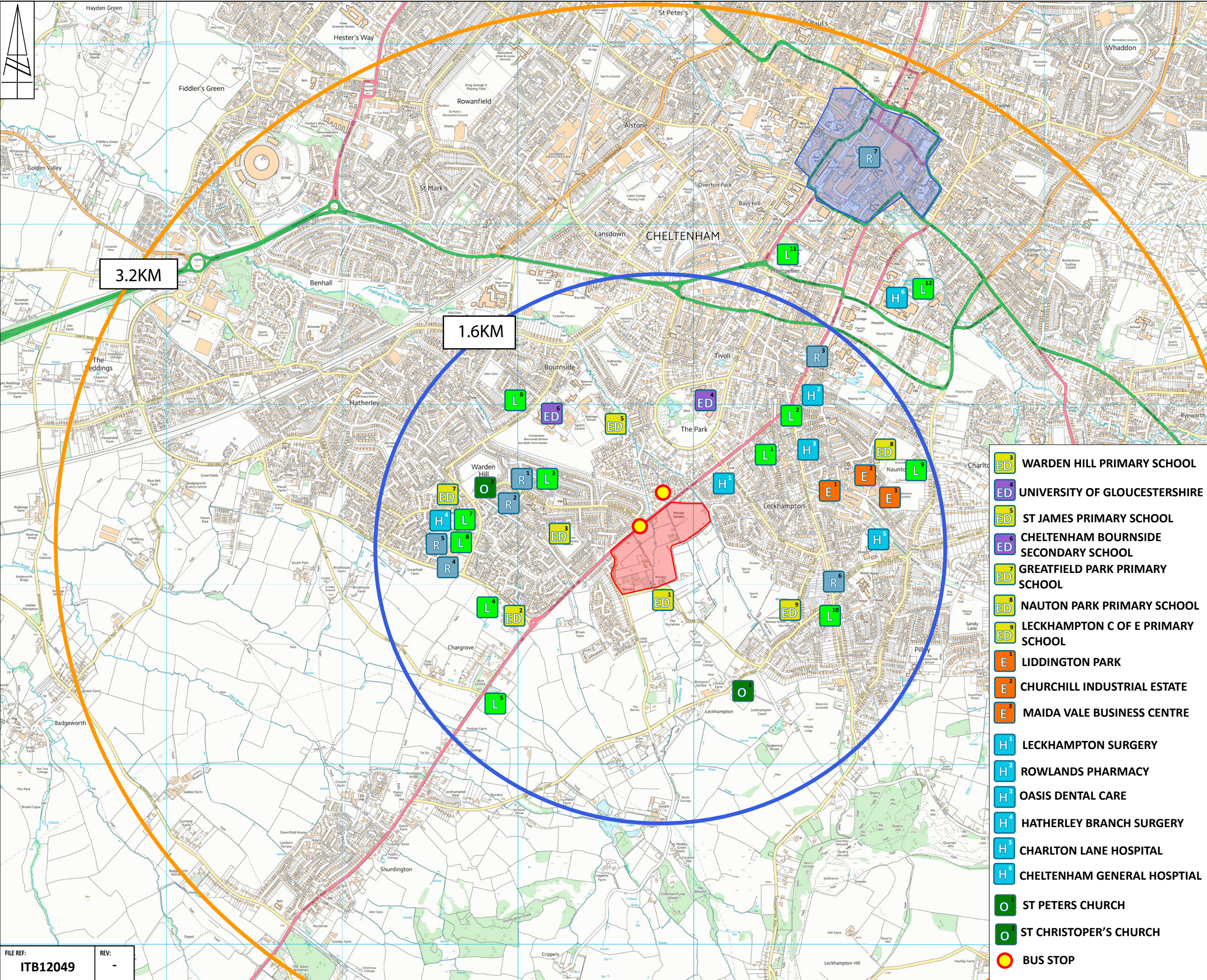
- A46 Shurdington Road/ Moorend Park Road junction – additional improvement on top of the committed improvement; and
- A46 Shurdington Lane/ Leckhampton Lane junction - ghost island right turn arrangement.

- 5.1.21 Both of the improvement schemes sit comfortably with the preferred mitigation package for Corridor 9 – A46 Bath Road (central Cheltenham) to A417 junction – as set out in the JCS Transport Strategy (So Something 7).
- 5.1.22 For a development proposal of 350 dwellings and a secondary school, the modelling results indicate that as a result of the mitigation measures, there will be an improvement to network conditions on the A46 corridor with a reduction in journey times and queuing compared to the opening year base scenario.
- 5.1.23 Further, the above results accord with the conclusions of the JCS Transport Strategy which confirms that the preferred mitigation package “**resolves delays along the Shurdington Road corridor**” and “**significantly benefit public transport specifically the operation of the 10 service within the A46 corridor**”.
- 5.1.24 Against this background, it is concluded that traffic generated by some 350 dwellings and a secondary school can be accommodated satisfactorily on the A46 Shurdington Road corridor without the residual cumulative impacts being severe.



## **APPENDIX A.** Walking Catchment





- KEY**
- SITE LOCATION
  - CHELTENHAM TOWN CENTRE
  - R<sup>1</sup> WARDEN HILL CO-OP
  - R<sup>2</sup> WARDEN HILL SHOPS
  - R<sup>3</sup> BATH ROAD SHOPS
  - R<sup>4</sup> MORRISONS SUPERSTORE
  - R<sup>5</sup> MORRISONS SHOPS
  - R<sup>6</sup> LECKHAMPTON CO-OP
  - R<sup>7</sup> REGENT ARCADE, CHELTENHAM
  - L<sup>1</sup> SOMERSET ARMS PUBLIC HOUSE
  - L<sup>2</sup> NORWOOD ARMS PUBLIC HOUSE
  - L<sup>3</sup> WARDEN HILL RECREATION GROUND
  - L<sup>4</sup> BRIZEN YOUTH CENTRE & SKATE PARK
  - L<sup>5</sup> HATHERLEY & REDDINGS CRICKET CLUB
  - L<sup>6</sup> BOURNSIDE SPORTS CENTRE
  - L<sup>7</sup> UP HATHERLEY LIBRARY & COMMUNITY CENTRE
  - L<sup>8</sup> THE GREATFIELD PUBLIC HOUSE
  - L<sup>9</sup> NAUNTON PARK
  - L<sup>10</sup> LECKHAMPTON VILLAGE HALL
  - L<sup>11</sup> MONTELLIER GARDENS
  - L<sup>12</sup> SANDFORD LIDO
  - ED<sup>1</sup> NURSERY RHYMES DAY NURSERY
  - ED<sup>2</sup> PIP AND JIMS PRE-SCHOOL

- ED<sup>3</sup> WARDEN HILL PRIMARY SCHOOL
- ED<sup>4</sup> UNIVERSITY OF GLOUCESTERSHIRE
- ED<sup>5</sup> ST JAMES PRIMARY SCHOOL
- ED<sup>6</sup> CHELTENHAM BOURNSIDE SECONDARY SCHOOL
- ED<sup>7</sup> GREATFIELD PARK PRIMARY SCHOOL
- ED<sup>8</sup> NAUNTON PARK PRIMARY SCHOOL
- ED<sup>9</sup> LECKHAMPTON C OF E PRIMARY SCHOOL
- E<sup>1</sup> LIDDINGTON PARK
- E<sup>2</sup> CHURCHILL INDUSTRIAL ESTATE
- E<sup>3</sup> MAIDA VALE BUSINESS CENTRE
- H<sup>1</sup> LECKHAMPTON SURGERY
- H<sup>2</sup> ROWLANDS PHARMACY
- H<sup>3</sup> OASIS DENTAL CARE
- H<sup>4</sup> HATHERLEY BRANCH SURGERY
- H<sup>5</sup> CHARLTON LANE HOSPITAL
- H<sup>6</sup> CHELTENHAM GENERAL HOSPITAL
- O ST PETERS CHURCH
- O ST CHRISTOPHER'S CHURCH
- BUS STOP



Grove House, Lutyens Close, Chineham Court,  
Basingstoke, RG24 8AG  
Tel: 01256 338 640  
Fax: 01256 338 644  
[www.i-transport.co.uk](http://www.i-transport.co.uk)

TITLE:

LAND AT KIDNAPPERS LANE,  
LECKHAMPTON, CHELTENHAM  
LOCAL FACILITIES PLAN AND WALKING  
CATCHMENTS

FIGURE No:

FIGURE T2

FILE REF:  
**ITB12049**

REV:  
-

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## **APPENDIX B.** Cycling Catchment





KEY

SITE LOCATION

8KM CATCHMENT

**i-Transport**

Grove House, Lutyens Close, Chineham Court,  
Basingstoke, RG24 8AG

Tel: 01256 338 640  
Fax: 01256 338 644

[www.i-transport.co.uk](http://www.i-transport.co.uk)

TITLE:

**LAND AT KIDNAPPERS LANE,  
LECKHAMPTON  
CYCLING CATCHMENT**

FIGURE No:

**FIGURE T3**

FILE REF:	REV:
ITB12049	-

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## **APPENDIX C.** Bus Service 10 Timetable

## 10 from Lower Tuffley to Gloucester & Cheltenham

**MONDAYS TO FRIDAYS** except Bank Holiday Mondays

Lower Tuffley Silver Close	-	-	0535	-	0555	-	0615	-	0634	0644	0654	0704	0715	0727	0737	0747	0757	0807	0822	0837	0847	0857	0904
Holmleigh Rd. Emerald Close	-	-	0544	-	0605	-	0625	-	0645	0655	0705	0715	0728	0740	0750	0800	0810	0820	0835	0850	0900	0910	0920
Gloucester Quays [Aldi]	-	-	0557	-	0619	-	0639	-	0659	0709	0719	0729	0743	0757	0807	0817	0827	0837	0852	0907	0917	0927	0937
Gloucester Clarence St [A] arr.	-	-	0603	-	0625	-	0645	-	0705	0715	0725	0735	0750	0805	0815	0825	0835	0845	0900	0915	0925	0935	0945
Gloucester Clarence St [A] dep.	0525	0545	0605	0620	0630	0640	0650	0700	0710	0720	0730	0740	0755	0810	0820	0830	0840	0850	0905	0920	0930	0940	0950
Hucclecote Royal Oak	0537	0557	0617	0632	0645	0655	0706	0717	0728	0738	0748	0758	0813	0828	0838	0848	0858	0908	0923	0935	0945	0955	1005
Brockworth Cross Hands	0545	0605	0625	0640	0655	0707	0719	0731	0743	0753	0803	0813	0828	0840	0850	0900	0910	0920	0935	0945	0955	1005	1015
Shurdington Church Lane	0551	0611	0631	0646	0701	0715	0729	0742	0755	0805	0815	0825	0838	0848	0858	0908	0918	0928	0941	0951	1001	1011	1021
Park Campus	0559	0619	0639	0654	0709	0724	0739	0753	0807	0817	0827	0837	0849	0859	0909	0919	0929	0939	0949	0959	1009	1019	1029
Cheltenham Promenade [4]	0605	0625	0645	0700	0715	0730	0745	0800	0815	0825	0835	0845	0855	0905	0915	0925	0935	0945	0955	1005	1015	1025	1035

Lower Tuffley Silver Close	Then frequently until (at least every 10 mins)	1444	<b>B</b>	-	1454	1504	-	1517	Then frequently until (at least every 10 mins)	1657	1707	1717	1727	1737	1747	1757	1807	1817	1829	1844	1859	1914	1929
Holmleigh Rd. Emerald Close		1455	1506	-	1509	1516	<b>C</b>	1528		1708	1718	1728	1738	1748	1757	1807	1817	1827	1840	1855	1910	1925	1940
Gloucester Quays [Aldi]		1509	1519	-	1524	1532	1534	1542		1722	1732	1742	1752	1802	1810	1820	1828	1838	1853	1908	1923	1938	1953
Gloucester Clarence St [A] arr.		1515	1525	-	1530	1540	1542	1550		1730	1740	1750	1800	1810	1815	1825	1832	1842	1857	1912	1927	1942	1957
Gloucester Clarence St [A] dep.		1520	1530	1530	1535	1545	-	1555		1735	1745	1755	1805	1815	-	1830	-	1845	1900	1915	1930	1945	2000
Hucclecote Royal Oak		1535	1545	1545	1553	1603	-	1613		1753	1801	1810	1820	1830	-	1845	-	1900	1915	1930	1945	2000	2015
Brockworth Cross Hands		1545	1555	1555	1603	1613	-	1623		1803	1811	1820	1829	1839	-	1854	-	1909	1924	1939	1954	2009	2024
Shurdington Church Lane		1551	1601	1601	1611	1621	-	1631		1811	-	1826	-	1845	-	1900	-	1915	1930	-	2000	-	2030
Park Campus		1559	1609	1609	1619	1629	-	1639		1819	-	1834	-	1851	-	1906	-	1921	1936	-	2006	-	2036
Cheltenham Promenade [4]		1605	1615	1615	1625	1635	-	1645		1825	-	1840	-	1855	-	1910	-	1925	1940	-	2010	-	2040

Lower Tuffley Silver Close	1944	2008	2038	2108	2138	2208	2238	2308	2338
Holmleigh Rd. Emerald Close	1955	2017	2047	2117	2147	2217	2247	2317	2347
Gloucester Quays [Aldi]	2008	2028	2058	2128	2158	2228	2258	2328	2358
Gloucester Clarence St [A] arr.	2012	2032	2102	2132	2202	2232	2302	2332	0002
Gloucester Clarence St [A] dep.	2015	2035	2105	2135	2205	2235	2305	-	-
Hucclecote Royal Oak	2027	2046	2116	2146	2216	2246	2316	-	-
Brockworth Cross Hands	2034	2054	2124	2154	2224	2254	2324	-	-
Shurdington Church Lane	-	2100	2130	2200	2230	2300	2330	-	-
Park Campus	-	2106	2136	2206	2236	2306	2336	-	-
Cheltenham Promenade [4]	-	2110	2140	2210	2240	2310	2340	-	-

**B** Departs from outside of Beaufort Academy at 1505

**C** Departs from outside of Crypt School at 1520

This bus runs on school days only.

This bus runs on school holidays only.

## 10 from Cheltenham to Gloucester & Lower Tuffley

**MONDAYS TO FRIDAYS** except Bank Holiday Mondays

Cheltenham Promenade [4]	-	-	-	-	-	-	-	-	0615	-	0635	-	0655	-	0710	0720	0730	0740	0750	0802	0815	1405
Park Campus	-	-	-	-	-	-	-	-	0620	-	0640	-	0700	-	0715	0725	0735	0745	0755	0807	0820	1410
Shurdington Church Lane	-	-	-	-	-	-	-	-	0628	-	0648	-	0708	-	0725	0735	0745	0755	0805	0817	0830	1418
Brockworth Cross Hands	-	-	-	-	0555	-	0615	-	0635	0645	0655	0705	0715	0725	0735	0745	0755	0805	0815	0827	0840	1425
Hucclecote Royal Oak	-	-	-	-	0605	-	0625	-	0645	0655	0705	0715	0725	0737	0747	0757	0807	0817	0827	0837	0850	1435
Gloucester Station Rd. [F] arr.	-	-	-	-	0620	-	0640	-	0700	0710	0720	0730	0740	0755	0810	0820	0830	0840	0850	0900	0910	1450
Gloucester Station Rd. [F] dep.	0520	0540	0600	0615	0625	0635	0645	0655	0705	0715	0725	0735	0745	0800	0815	0825	0835	0845	0855	0905	0915	1455
Gloucester Quays [Kwik Fit]	0524	0544	0604	0621	0631	0641	0651	0701	0711	0721	0731	0741	0751	0806	0821	0831	0841	0851	0901	0911	0921	1503
Lower Tuffley Silver Close	0535	0555	0615	0634	0644	0654	0704	0715	0727	0737	0747	0757	0807	0822	0837	0847	0857	0904	0914	0924	0934	1517

Then frequently until  
(at least every 10 mins)

Cheltenham Promenade [4]	1415	1425	1435	1445	-	1455	1655	1705	1715	1725	1735	1745	1755	1805	1820	1835	1850	1905	1920	1935	1950	2015
Park Campus	1420	1430	1440	1450	-	1501	1701	1711	1721	1731	1741	1751	1801	1811	1825	1840	1855	1910	1925	1940	1955	2019
Shurdington Church Lane	1428	1438	1448	1458	-	1510	1710	1720	1730	1740	1750	1800	1810	1820	1833	1848	1903	1918	1933	1948	2003	2025
Brockworth Cross Hands	1435	1445	1455	1505	1510	1520	1720	1730	1740	1750	1800	1810	1820	1830	1840	1855	1910	1925	1940	1955	2010	2031
Hucclecote Royal Oak	1445	1455	1505	1515	1523	1533	1733	1743	1753	1800	1810	1820	1830	1840	1850	1905	1920	1935	1950	2005	2020	2038
Gloucester Station Rd. [F] arr.	1500	1510	1520	1530	1540	1550	1750	1800	1810	1815	1825	1835	1845	1850	1905	1920	1935	1950	2005	2020	2035	2050
Gloucester Station Rd. [F] dep.	1505	1515	1525	1535	1545	1555	1800	1810	-	1825	-	1840	-	1855	1910	1925	-	1953	-	2023	-	2053
Gloucester Quays [Kwik Fit]	1513	1523	1533	1543	1553	1603	1805	1816	-	1831	-	1846	-	1901	1916	1931	-	1957	-	2027	-	2057
Lower Tuffley Silver Close	1527	1537	1547	1557	1607	1617	1817	1829	-	1844	-	1859	-	1914	1929	1944	-	2008	-	2038	-	2108

Then frequently until  
(at least every 10 mins)

Cheltenham Promenade [4]	2045	2115	2145	2215	2245	2315	2345
Park Campus	2049	2119	2149	2219	2249	2319	2349
Shurdington Church Lane	2055	2125	2155	2225	2255	2325	2355
Brockworth Cross Hands	2101	2131	2201	2231	2301	2331	0001
Hucclecote Royal Oak	2108	2138	2208	2238	2308	2338	0008
Gloucester Station Rd. [F] arr.	2120	2150	2220	2250	2320	2350	0020
Gloucester Station Rd. [F] dep.	2123	2153	2223	2253	2323	-	-
Gloucester Quays [Kwik Fit]	2127	2157	2227	2257	2327	-	-
Lower Tuffley Silver Close	2138	2208	2238	2308	2338	-	-

## 10 from Lower Tuffley to Gloucester & Cheltenham

### SATURDAYS

Lower Tuffley Silver Close	-	-	0639	0659	0714	0729	0743	Then at these times past each hour	55	07	19	31	43	Until	1655	1707	1719	1731	1744	1759	1814	1829	1844
Holmleigh Rd. Emerald Cl.	-	-	0650	0710	0725	0740	0754		06	18	30	42	54		1706	1718	1730	1742	1755	1810	1825	1840	1855
Gloucester Quays [Aldi]	-	-	0704	0724	0739	0754	0808		20	32	44	56	08		1720	1732	1744	1756	1808	1823	1838	1853	1908
Gloucester Clarence St [A] arr.	-	-	0710	0730	0745	0800	0814		26	38	50	02	14		1726	1738	1750	1802	1812	1827	1842	1857	1912
Gloucester Clarence St [A] dep.	0634	0654	0714	0734	0749	0804	0819		31	43	55	07	19		1731	1745	1800	-	1815	1830	1845	1900	1915
Hucclecote Royal Oak	0646	0706	0726	0746	0804	0819	0834	Then at these times past each hour	46	58	10	22	34	Until	1746	1800	1815	-	1830	1845	1900	1915	1930
Brockworth Cross Hands	0654	0714	0734	0754	0814	0829	0844		56	08	20	32	44		1756	1809	1824	-	1839	1854	1909	1924	1939
Shurdington Church Lane	0700	0720	0740	0800	0820	0835	0850		02	14	26	38	50		1802	1815	1830	-	1845	1900	1915	1930	-
Park Campus	0708	0728	0748	0808	0828	0843	0858		10	22	34	46	58		1810	1821	1836	-	1851	1906	1921	1936	-
Cheltenham Promenade [4]	0714	0734	0754	0814	0834	0849	0904		16	28	40	52	04		1816	1825	1840	-	1855	1910	1925	1940	-

Lower Tuffley Silver Close	1859	1914	1929	1944	2008	2038	2108	2138	2208	2238	2308	2338		
Holmleigh Rd. Emerald Cl.	1910	1925	1940	1955	2017	2047	2117	2147	2217	2247	2317	2347		
Gloucester Quays [Aldi]	1923	1938	1953	2008	2028	2058	2128	2158	2228	2258	2328	2358		
Gloucester Clarence St [A] arr.	1927	1942	1957	2012	2032	2102	2132	2202	2232	2302	2332	0002		
Gloucester Clarence St [A] dep.	1930	1945	2000	2015	2035	2105	2135	2205	2235	2305	-	-		
Hucclecote Royal Oak	1945	2000	2015	2027	2046	2116	2146	2216	2246	2316	-	-		
Brockworth Cross Hands	1954	2009	2024	2034	2054	2124	2154	2224	2254	2324	-	-		
Shurdington Church Lane	2000	-	2030	-	2100	2130	2200	2230	2300	2330	-	-		
Park Campus	2006	-	2036	-	2106	2136	2206	2236	2306	2336	-	-		
Cheltenham Promenade [4]	2010	-	2040	-	2110	2140	2210	2240	2310	2340	-	-		



## 10 from Cheltenham to Gloucester & Lower Tuffley

### SATURDAYS

Cheltenham Promenade [4]	-	-	-	-	-	-	-	-	0720	-	0740	0800	-	0820	-	0840	0855	0910	0922	0934	0946	0958	1010
Park Campus	-	-	-	-	-	-	-	-	0725	-	0745	0805	-	0825	-	0845	0900	0915	0927	0939	0951	1003	1015
Shurdington Church Lane	-	-	-	-	-	-	-	-	0733	-	0753	0813	-	0833	-	0853	0908	0923	0935	0947	0959	1011	1023
Brockworth Cross Hands	-	-	0635	-	0700	-	0720	-	0740	-	0800	0820	-	0840	-	0900	0915	0930	0942	0954	1006	1018	1030
Hucclecote Royal Oak	-	-	0642	-	0707	-	0730	-	0750	-	0810	0830	-	0850	-	0910	0925	0940	0952	1004	1016	1028	1040
Gloucester Station Rd. [F] arr.	-	-	0654	-	0719	-	0745	-	0805	-	0825	0845	-	0905	-	0925	0940	0955	1007	1019	1031	1043	1055
Gloucester Station Rd. [F] dep.	0620	0640	0655	0710	0724	0736	0748	0800	0812	0824	0836	0848	0900	0912	0924	0936	0948	1000	1012	1024	1036	1048	1100
Gloucester Quays [Kwik Fit]	0626	0644	0659	0716	0730	0742	0754	0806	0818	0830	0842	0854	0906	0918	0930	0942	0954	1006	1018	1030	1042	1054	1106
Lower Tuffley Silver Close	0639	0659	0714	0729	0743	0755	0807	0819	0831	0843	0855	0907	0919	0931	0943	0955	1007	1019	1031	1043	1055	1107	1119

Cheltenham Promenade [4]	Then at these times past each hour	22	34	46	58	10	Until	1634	1646	1658	1710	1722	1735	1750	1805	1820	1835	1850	1905	1920	1935	1950	2015
Park Campus		27	39	51	03	15		1639	1651	1703	1715	1727	1740	1755	1810	1825	1840	1855	1910	1925	1940	1955	2019
Shurdington Church Lane		35	47	59	11	23		1647	1659	1711	1723	1735	1748	1803	1818	1833	1848	1903	1918	1933	1948	2003	2025
Brockworth Cross Hands		42	54	06	18	30		1654	1706	1718	1730	1742	1755	1810	1825	1840	1855	1910	1925	1940	1955	2010	2031
Hucclecote Royal Oak		52	04	16	28	40		1704	1716	1728	1740	1752	1805	1820	1835	1850	1905	1920	1935	1950	2005	2020	2038
Gloucester Station Rd. [F] arr.		07	19	31	43	55		1719	1731	1743	1755	1807	1820	1835	1850	1905	1920	1935	1950	2005	2020	2035	2050
Gloucester Station Rd. [F] dep.		12	24	36	48	00		1725	1740	1755	-	1810	1825	1840	1855	1910	1925	-	1953	-	2023	-	2053
Gloucester Quays [Kwik Fit]		18	30	42	54	06		1731	1746	1801	-	1816	1831	1846	1901	1916	1931	-	1957	-	2027	-	2057
Lower Tuffley Silver Close		31	43	55	07	19		1744	1759	1814	-	1829	1844	1859	1914	1929	1944	-	2008	-	2038	-	2108

Cheltenham Promenade [4]	2045	2115	2145	2215	2245	2315	2345
Park Campus	2049	2119	2149	2219	2249	2319	2349
Shurdington Church Lane	2055	2125	2155	2225	2255	2325	2355
Brockworth Cross Hands	2101	2131	2201	2231	2301	2321	0001
Hucclecote Royal Oak	2108	2138	2208	2238	2308	2338	0008
Gloucester Station Rd. [F] arr.	2120	2150	2220	2250	2320	2350	0020
Gloucester Station Rd. [F] dep.	2123	2153	2223	2253	2323		
Gloucester Quays [Kwik Fit]	2127	2157	2227	2257	2327		
Lower Tuffley Silver Close	2138	2208	2238	2308	2338		

## 10 from Lower Tuffley to Gloucester & Cheltenham

**SUNDAYS** including Bank Holiday Mondays

Lower Tuffley Silver Close	-	-	-	0749	Then at these times past each hour	09	29	49	Until	1709	1729	1749	1809	1829	1849	1909	1929	1949	2018	2118	2218	2318
Holmleigh Rd. Emerald Cl.	-	-	-	0800		20	40	00		1720	1740	1800	1820	1840	1900	1920	1940	2000	2027	2127	2227	2327
Gloucester Quays [Aldi]	-	-	-	0814		34	54	14		1734	1754	1814	1834	1854	1914	1934	1954	2014	2038	2138	2238	2338
Gloucester Clarence St. [A] arr.	-	-	-	0820		40	00	20		1740	1800	1820	1840	1900	1920	1940	2000	2020	2042	2142	2242	2342
Gloucester Clarence St. [A] dep.	0720	0745	0805	0825		45	05	25		1745	1805	1825	1845	-	-	1945	-	-	2045	2145	2245	-
Hucclecote Royal Oak	0731	0800	0820	0840	Then at these times past each hour	00	20	40	Until	1800	1820	1840	1856	-	-	1956	-	-	2056	2156	2256	-
Brockworth Cross Hands	0739	0810	0830	0850		10	30	50		1810	1830	1850	1904	-	-	2004	-	-	2104	2204	2304	-
Shurdington Church Lane	0745	0816	0836	0856		16	36	56		1816	1836	-	1910	-	-	2010	-	-	2110	2210	2310	-
Park Campus	0751	0824	0844	0904		24	44	04		1824	1844	-	1916	-	-	2016	-	-	2116	2216	2316	-
Cheltenham Promenade [4]	0755	0830	0850	0910		30	50	10		1830	1850	-	1920	-	-	2020	-	-	2120	2220	2320	-

## 10 from Cheltenham to Gloucester & Lower Tuffley

**SUNDAYS** including Bank Holiday Mondays

Cheltenham Promenade [4]	-	-	-	-	0800	Then at these times past each hour	20	40	00	Until	1820	1840	1900	1925	2025	2125	2225	2325				
Park Campus	-	-	-	-	0805		25	45	05		1825	1845	1905	1929	2029	2129	2229	2329				
Shurdington Church Lane	-	-	-	-	0813		33	53	13		1833	1853	1913	1935	2035	2135	2235	2335				
Brockworth Cross Hands	-	-	-	-	0820		40	00	20		1840	1900	1920	1941	2041	2141	2241	2341				
Hucclecote Royal Oak	-	-	-	-	0830		50	10	30		1850	1910	1928	1948	2048	2148	2248	2348				
Gloucester Station Rd. [F] arr.	-	-	-	-	0845	Then at these times past each hour	05	25	45	Until	1905	1925	1940	2000	2100	2200	2300	0000				
Gloucester Station Rd. [F] dep.	0730	0750	0810	0830	0850		10	30	50		1910	1930	-	2003	2103	2203	2303	-				
Gloucester Quays [Kwik Fit]	0736	0756	0816	0836	0856		16	36	56		1916	1936	-	2007	2107	2207	2307	-				
Lower Tuffley Silver Close	0749	0809	0829	0849	0909		29	49	09		1929	1949	-	2018	2118	2218	2318	-				

