THE SPINNEY, ESSENDON

TRANSPORT STATEMENT

SYSTRA

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TRANSPORT STATEMENT

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1. INTRODUCTION

1.1 General

1.1.1 SYSTRA Ltd. has been commissioned by Essendon Property Ventures Ltd. (the Applicant) to provide transport and highways consultancy services to support a Section 73 planning application with regards to The Spinney, High Road, Essendon, Hertfordshire, AL9 6HA (the Site) as shown in **Figure 1.1**.

Figure 1.1 Existing Site

1.1.2 The Local Planning Authority is Welwyn Hatfield Borough Council and the Local Highways Authority is Hertfordshire County Council (HCC).

1.1.3 The aim of this Transport Statement (TS) is to identify existing and potential future traffic and transport issues related to the Site and its proposed future operation, with a particular focus on the access onto the B158 High Road and the visibility from the proposed access point.

1.1.4 This document provides an update to the TS produced by JMP Consultants (dated 07/03/2016), and demonstrates the transport and highways implications of an amended scheme for the Site.

1.2 Planning History

1.2.1 The Site currently comprises one residential dwelling within a two acre plot of land. The Site also has significant permitted development rights for several extensions and outbuildings under permitted development rights (see Welwyn Hatfield Council ref (S6/2015/1203/HH) as well as a Certificate of Lawfulness (see Welwyn Hatfield Council ref S6/2015/0727/LUP). This permission extends across the site and foundations for one of the outbuildings are currently being constructed.

1.2.2 A planning application for the Site was granted in October 2016, for a scheme comprising the erection of two dwellings following demolition of the existing buildings on Site (ref: 6/2016/1118/FULL)). Also permitted by the application were two car parking spaces per dwelling and an additional access onto the B518 High Road (the Consented Development).

1.3 Proposed Development

1.3.1 The Applicant now seeks a minor material amendment to the consented scheme comprising relocation of the permitted dwellings and plot boundaries, removal of a common oak tree near the eastern corner of Plot 2, and the relocation of the proposed second Site access onto the B158 High Road (the Proposed Development).

1.3.2 The proposed site layout plans are contained at **Appendix A** for information.

1.4 Report Structure

1.4.1 Following this section, the remainder of the TS is structured as follows:

- **Section 2: Policy Review –** Provides an outline and review of the relevant national, regional and local transport planning policy and guidelines in the context of the Proposed Development;
- **Section 3: Baseline Conditions –** Provides a description and review of the existing transport conditions prevailing at the Site and in the immediate surrounding area. This includes a review of public transport services, pedestrian and cycle facilities and the local highway network;
- **Section 4: Development Proposals –** Provides a summary of the Proposed Development, including cycle parking provision and servicing arrangements;
- **Section 5: Multi-modal Trip Generation Assessment –** Presents the outcome of the multi-modal trip assessment carried out to identify additional trips to the site as a result of the proposed development;
- **Section 6: Access Arrangements –** Details the existing and proposed access options to the Site, including reference to design standards;
- **Section 7: Summary & Conclusion –** Summarises the key points arising from the work carried out to inform the Transport Statement, and provides a final conclusion.

2. POLICY REVIEW

2.1 General

2.1.1 This section reviews the relevant current national, regional and local integrated land use and transport planning policy in the context of the Proposed Development. The following policy documents have been reviewed:

- National Planning Policy Framework (NPPF) (March 2012);
- Planning Practice Guidance (PPG) (2014);
- DMRB Geometric Design of Major / Minor Priority Junctions (1995);
- Hertfordshire County Council Local Transport Plan (2011);
- Welwyn Hatfield District Plan (2005);
- Emerging Welwyn Hatfield Local Plan; and
- Welwyn Hatfield Interim Policy for Car Parking Standards and Garage Size (2014).

2.2 National Policy & Guidance

National Planning Policy Framework (March 2012)

2.2.1 The National Planning Policy Framework ('NPPF') was published on 27th March 2012, and sets out the Government's policy framework for the planning system. It is a material consideration in planning decisions.

2.2.2 At the heart of the NPPF is a presumption in favour of sustainable development which 'should be seen as a golden thread running through both plan making and decision taking' (Paragraph 14). In Paragraph 15, it goes on to say that 'Policies in Local Plans should follow the approach of the presumption in favour of sustainable development so that it is clear that development which is sustainable can be approved without delay'.

2.2.3 NPPF recognises that transport policies have an important role to play in wider sustainability and health objectives as well as their direct influence on development. It seeks to ensure that the transport system is balanced in favour of sustainable transport modes, giving people a real choice about how they travel.

2.2.4 A sustainable transport mode is described as 'any efficient, safe and accessible means of transport with overall low impact on the environment, including walking and cycling, low and ultra-low emission vehicles, car sharing and public transport' (Annex 2, p. 57).

Planning Practice Guidance (PPG) (2014)

2.2.5 The Planning Practice Guidance (PPG) document 'Travel Plans, Transport Assessments and Statements in Decision-Taking' was published in 2014 and provides a concise report on the use, importance of, and content to be provided within Transport Assessments, Transport Statements and Travel Plans.

2.2.6 With regard to whether to provide a Transport Assessment, Transport Statement or no assessment, the PPG states that local planning authorities, developers, relevant transport authorities, and neighbourhood planning organisations should agree what evaluation is needed in each instance.

2.2.7 The Guidance states that Transport Assessments, Transport Statements and Travel Plans can positively contribute to encouraging sustainable travel, lessening traffic generation and its detrimental impacts and reducing carbon emissions and climate impact. In doing so they can create accessible, connected, inclusive communities with improved road safety, health and quality of life.

2.2.8 The Guidance states that Transport Assessments, Transport Statements and Travel Plans should be proportionate to the size and scope of the proposed development, be tailored to particular local circumstances and be established at the earliest practicable possible stage of a development proposal.

2.2.9 Whilst a development of this size would not ordinarily require a Transport Statement, the Applicant has decided to prepare one to fully assess the potential implications of the proposed access arrangements.

Design Manual for Roads and Bridges, Volume 6, Section 2, TD 42/95 (1995)

2.2.10 Chapter 7 of the document outlines the geometric design features to be considered in the design of major/minor priority junctions. Table 7/1 provides the 'y' distance (m) required for different design speeds of the major road, when measured from an 'x' distance back along the minor road from which full visibility is measured.

2.2.11 In difficult circumstances, the `x' distance may be taken as a Relaxation from 9.0m to 4.5m for lightly trafficked simple junctions, and in exceptionally difficult circumstances, to 2.4m back from the nearer edge of the major road running carriageway. The `x' distance, from which full `y' distance visibility is provided, shall not be more than 9m, as this induces high minor road approach speeds into the junction, and leads to excessive land take.

2.2.12 The design standards have been copied overleaf in **Table 2.1.**

Table 2.1 'y' Visibility Distances from the Minor Road

SPEED LIMIT OF MAJOR ROAD	'Y' DISTANCE (M)
30	90
40	120
50	160
60	215

Source: DMRB TD 42/95, Table 7/1

2.3 Local Policy & Guidance

Hertfordshire County Council Local Transport Plan (2011)

2.3.1 Future transport development up to 2031 within Hertfordshire is guided by the Local Transport Plan 3 (LTP3) which aims to "provide a safe, efficient and resilient transport system that serves the needs of business and residents across Hertfordshire and minimises its impact on the environment". It aims to do this by promoting sustainable transport options throughout the County which will lead to a positive impact on the local environment.

2.3.2 The document provides a list of challenges which measures in the LTP seeks to achieve over the lifespan of the plan. These include challenges such as improving road safety in the county, reducing greenhouse gas emissions from transport to meet government targets, and achieving behavioural change as regards choice of transport mode.

2.3.3 Challenge 1.2 seeks to support economic growth and new housing development through delivery of transport improvements and where necessary enhancement of the network capacity. New residents should be fully informed of the options available using the new information technologies and should recognise the improved environment for sustainable transport which is being developed across the county. Developers will be expected to help fund the provision of facilities and services for sustainable travel and contribute to the long term maintenance of special highway features.

2.3.4 In time, levels of demand from new developments and other growth may become so great that infrastructure solutions are considered necessary. Solutions such as park and ride schemes, new interchanges and potentially new road links and bypasses would be assessed where appropriate if funding is available. Demand management measures may also be considered.

2.3.5 Challenge 3.3 seeks to maintain and enhance the natural, built and historic environment, which may be affected by the construction of new infrastructure and the presence of traffic in the landscape and in towns. This will be achieved through increasing use of sustainable modes, and small scale improvements to ease traffic flow. This includes the

removal of unnecessary street clutter, as well as the provision of street furniture to help the mobility impaired and to enhance social interaction.

2.3.6 Given the scale of the Proposed Development, and the rural location of the Site , it is considered that the proposals will have a negligible impact on the local road network. Nevertheless, the Site is served by nearby public transport services as described in Section 3 of this document, as well as a good provision of footpaths which will encourage users of the Site to travel sustainably.

Welwyn Hatfield District Plan (2005)

2.3.7 The Welwyn Hatfield District Plan was adopted in 2005 and provided a guide for development up until 2011. A number of policies have been saved until the emerging Welwyn Hatfield Local Plan has been adopted. Some of the key saved transport policies include:

- M2 Transport Assessments;
- M3 Green Travel Plans;
- M5 Pedestrian Facilities;
- M6 Cycle Routes and Facilities; and
- M14 Parking Standards for New Development.

2.3.8 It is considered that the Proposed Development is in line with these policies.

Emerging Welwyn Hatfield Local Plan

2.3.9 The Emerging Local Plan sets out proposals for the development of Hatfield up to 2032. It is proposed that the Plan will be formally adopted by Autumn 2017. A proposed submission draft of the Local Plan was published for eight weeks of consultation from Tuesday 30th August until Monday 24th October 2016, and the representations received are now being considered to inform the examination version of the Plan.

Welwyn Hatfield Interim Policy for Car Parking Standards and Garage Size (2014)

2.3.10 The current maximum car parking standards for the borough are guided by Policy M14 of the Welwyn Hatfield District Plan 2005 set out in the Welwyn Hatfield Parking Standards Supplementary Planning Guidance (SPG) (2004).

2.3.11 The Council have agreed to treat the existing car parking standards as guidelines rather than maximums. The Council will determine on a case-by-case basis to achieve a sensible level of provision taking account of existing standards, NPPF guidance, the relevant circumstances of the proposal, the site context and wider surroundings.

2.3.12 Residential car parking and cycle parking standards are set out in **Table 2.2** overleaf.

Table 2.2 Residential Parking Standards

NUMBER OF BEDROOMS	CAR PARKING (PER DWELLING)		CYCLE PARKING (PER DWELLING)
	ZONES 1 AND 2	ELSEWHERE	
1 bedroom dwellings	0.75	1.25	1 long term space per unit if no garage or shed provided
2 bedroom dwellings	1	1.5	
3 bedroom dwellings	1.5	2.25	
4 or more bedroom dwellings	2.0	3	

Welwyn Hatfield District Plan – Car Parking Standards (January 2004)

2.3.13 As Essendon lies outside the two Zones, the 'Elsewhere' category applies to the Proposed Development at The Spinney and parking will therefore be provided in accordance with the above policy standards.

3. BASELINE CONDITIONS

3.1 General

3.1.1 This section provides information on the existing Site and the surrounding area, with a focus on local transport infrastructure and services. The baseline conditions are identified so that the context of the Proposed Development, its measures and potential impact on the local transport and highway network can be fully understood.

Site Location

3.1.2 The Site is located directly from the B158 High Road, Essendon. Essendon is located approximately 7km east of Hatfield and 8.5km south west of Hertford. A plan showing the location of the Site in the context of Essendon is provided in **Figure 3.1** below.

Figure 3.1 Site Location Plan

Contains Ordnance Survey Data © Crown copyright and database right 2017

3.1.3 As shown in **Figure 3.1**, the Site is located on the eastern side of the B158 High Road and is surrounded by residential properties to the west and woodland to the north, south and east. Essendon golf course is located to the other side of the woodland to the east of the Site.

3.1.4 The village of Essendon has two bus stops, a church (St Mary the Virgin), a public house (Rose & Crown), a village hall and a Church of England primary school. In terms of leisure, it is home to Hatfield London Country Club which has two 18-hole golf courses. Further amenities can be found in the town centres of Hatfield to the west or Hertford to the east.

3.2 Walking and cycling

3.2.1 Essendon town centre is accessible from the Site by walking due to the good quality footpaths along the eastern side of the B158 High Road. Footpaths along the western side are provided intermittently. Dropped kerbs are regular along the B158 High Road due to the frequent vehicle crossovers which provide access to the residential properties along the road.

3.2.2 While there is little cycling infrastructure within Essendon, National Cycle Route 61 can be joined within 3.6km from the Site, and this heads east to Hoddesdon, and west to Welwyn Garden City before continuing as far south as Maidenhead.

3.3 Public Transport Services

Bus Services

3.3.1 The Site is currently served by three daytime bus services, which are accessible from a bus stop opposite the war memorial in Essendon, as shown in **Figure 3.2** overleaf.

Figure 3.2 Essendon Bus Stop

3.3.2 The bus stop is located approximately 650m to the north of the Site along a continuous footway, (an approximate 9 minute walk at 4.8kph). A summary of the bus services can be found in **Table 3.1** below.

Table 3.1 Local Bus Services

ROUTE NUMBER	OPERATOR AND ROUTE	WEEKDAY FREQUENCY			WEEKEND FREQUENCY	
		AM Peak	Inter Peak	PM Peak	Sat	Sun
200	Essendon – London Colney	0	1 (13:14)	0	No service	No service
201	Welham Green - Welwyn Garden City	0	1 (13:04)	0	No Service	No Service
341	Uno Ware/Hertford – Hatfield	1 (07:58)	Every 2 hours	1 (17:45)	Every 2 hours	No service

Source: Traveline (May 2017)

National Rail

3.3.3 The nearest rail station to the Site is Hatfield rail station, located 7.6km to the west of the Site. The station is managed and served by Great Northern. A summary of the services from Hatfield rail station can be found in **Table 3.2** below.

Table 3.2 Local Rail Services

ROUTE	WEEKDAY FREQUENCY					WEEKEND FREQUENCY	
	First	Last	AM Peak	Inter Peak	PM Peak	Sat	Sun
Stevenage – Hatfield – Potters Bar – London Kings Cross	04:15	00:24	5	5	6	4	3
Spalding / Stamford – Peterborough – Biggleswade – Stevenage – Hatfield – London Kings Cross	05:19	23:33	0	1	1	1	0
London Kings Cross – Hatfield – Baldock – Meldreth – Cambridge	06:27	23:27	1	1	2	1	1
London Kings Cross – Hatfield – Welwyn North – Stevenage – Letchworth Garden City	05:44	02:06	2	2	2	2	1

Source: Great Northern (May 2017)

3.3.4 Hatfield rail station has 50 bicycle stands located at the front of the station and a total of 742 car parking spaces across two car parks.

3.3.5 Two further rail stations are provided in Hertford. Hertford North rail station is located 8.8km to the north east of the Site and provides regular links to London (Moorgate and Kings Cross), Letchworth Garden City and Stevenage provided by Great Northern. Hertford East rail station is located 8.7km north east of the Site providing regular links to London Liverpool Street only, as it is the terminus of the Hertford East branch of the West Anglia Main Line.

3.4 Strategic & Local Highway Network

B158 High Road

3.4.1 The Site is located on the eastern side of the B158 High Road, accessed via a locked gate. The B158 High Road is a single carriageway road which connects to the A1000 in the south, and the A414 and Hertford in the north east.

3.4.2 Outside the Site, the B158 is derestricted, however approximately 20m north of the Site the speed limit of the road reduces to 30mph, symbolising the southern entrance to Essendon.

Wider Road Network

3.4.3 The Site is well located for the trunk road network; it is 7km east of Junction 4 of the A1 (M) and is 13km north east of M25 Junction 23 by road.

Existing Traffic Conditions

3.4.4 An Automatic Traffic Count (ATC) was undertaken outside the Site between the 22nd and 29th September 2015, in order to inform the previous TS for the Site. The results showed that there were on average 5,216 two-way daily movements outside the Site over a 5-day period.

3.4.5 The ATC also recorded the average vehicle speeds of the B158 High Road; it found that the average speed was 36.2mph and the 85%ile speed was on average 41.4mph. This therefore demonstrates that vehicles are travelling lower than the speed limit of the road (60mph) and this is likely to be explained by the fact that the road has a number of bends in the vicinity of the Site.

Parking

3.4.6 Parking for the existing residential property on Site is currently provided in the form of a garage for two vehicles.

Collision Analysis

3.4.7 Previous collisions in the surrounding area have been undertaken using crashmap.com, which indicates only two recorded collisions in proximity to the Site within the last five years, both of which resulted in slight injuries. One collision took place in front of the Rose & Crown Pub, approximately 300m north of the Site, whilst another took place directly in front of the access to Essendon Place, approximately 150m south of the Site. No collisions have been recorded on the bend directly fronting the Site.

3.4.8 The accidents identified are shown in **Figure 3.3** overleaf.

Figure 3.3 Collisions Within the Study Area

Source: Crashmap.com

4. DEVELOPMENT PROPOSALS

4.1 General

4.1.1 This section of the report describes and outlines the Proposed Development at The Spinney, Essendon. It includes details of the scheme that was permitted under the 2016 planning application, the proposed redevelopment of the Site, car and cycle parking provision, access details and servicing arrangements.

4.2 Consented Development

4.2.1 The Site gained planning permission in October 2016 for the demolition of the existing detached dwelling house (Use Class C3) and construction of two new architect-designed dwelling houses (Use Class C3): one 5 bedroom property (plot 1) and one 6 bedroom property (plot 2). The two properties would be separated by a landscape buffer, comprising dense hedgerow, allowing for privacy for both residential gardens and reducing any impact of overlooking. The residential unit on Plot 2 would be accessed from a new access which is approximately 95 metres south of the existing access on the B158 High Road.

Car & Cycle Parking

4.2.2 Car and cycle parking provision will not change as part of the proposed amendments to the 2016 planning permission, and will therefore continue to be provided in accordance with local parking standards as highlighted within **Table 2.2**.

Servicing Arrangements

4.2.3 Servicing arrangements will not be affected by the proposed amendments to the scheme. Residential waste associated with the Site is collected by Welwyn Hatfield Borough Council residential waste collection service. Collections are made weekly on Mondays, with waste vehicles remaining on the B158 High Road to collect waste from The Spinney. This therefore requires the residents to move the bins to the roadside on collection day.

4.2.4 Waste collection bins are currently stored within the curtilage of the existing dwelling, and this will be replicated for the Proposed Development.

4.2.5 The majority of delivery and servicing associated with the residential units are likely to comprise grocery / takeaway deliveries and similar, and is anticipated to take place on an infrequent basis. Such deliveries will be made by Light Goods Vehicles (LGVs) or by car, and will have a short duration of stay. Given that there are two accesses being provided to the plot, it is not considered that the impact of the low number of predicted light vehicles to the Site will have an impact on the local highway network.

4.3 Proposed Amendments

4.3.1 The Applicant now proposes minor material amendments to the consented scheme, which are listed below. The alterations are also shown on the proposed site plans below in **Figure 4.1** and in **Appendix A**.

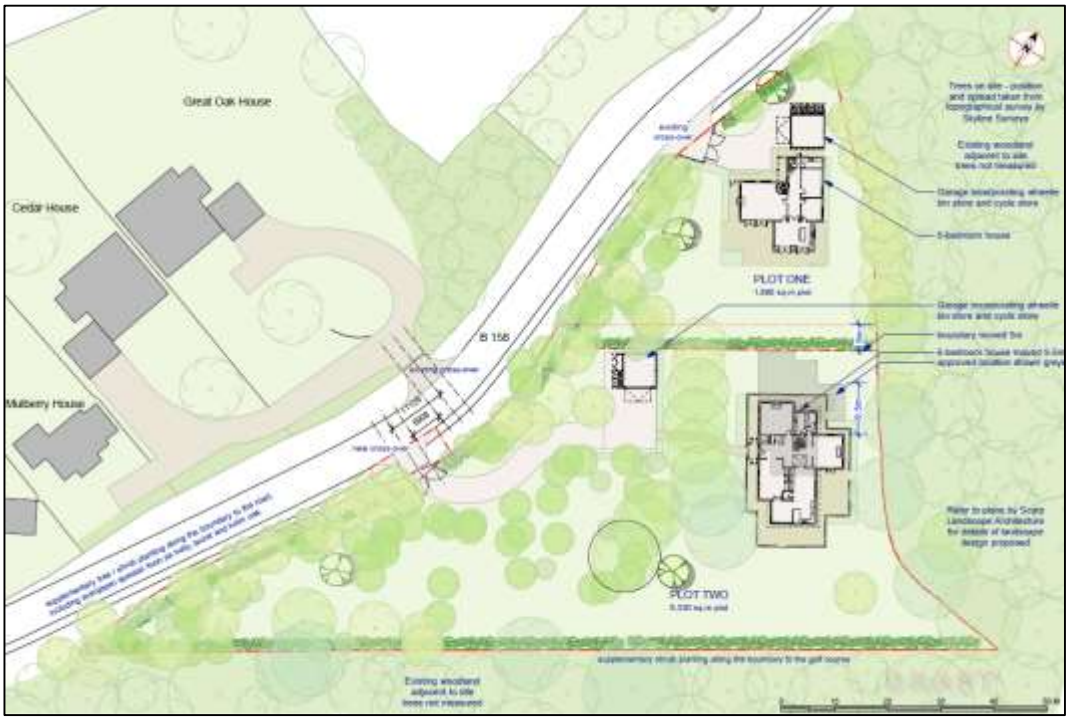
- The proposed dwelling on Plot 2 will be relocated nine metres further south;

- Tree T12, near the eastern corner of Plot 2, will be removed;
- The boundary between Plot 1 and Plot 2 will be relocated further south to enlarge Plot 1; and
- The second site access, serving the proposed property on Plot 2, will be relocated further north than the consented position.

4.3.2 It is considered that the changes to the second Site access are the only alterations that are likely to have an impact from a transport and highways perspective. This is discussed in Section 6 of this document.

4.3.3 All other elements of the scheme will remain as consented, as detailed above.

Figure 4.1 Proposed Site Plan



5. MULTI-MODAL TRIP GENERATION ASSESSMENT

5.1.1 The trip generation of the Site will not change as a result of the amendments to the planning consent proposed under the Section 73 application. This section of the document, taken from the TS produced by JMP in support of the Consented Application, has been included for reference only.

5.1.2 A trip generation assessment was undertaken using the latest available version of the TRICS® database (v 7.2.4) to calculate trips likely to be generated by the proposed residential developments.

5.2 Selection Criteria

- Residential – Houses Privately Owned
- Multi-modal Trip Rates
- South East Region
- Suburban Area
- Trip Rate Parameter – Number of Bedrooms
- Monday to Friday surveys only
- Surveys from 2007 onwards

5.2.1 **Table 5.1** details the sites contained within the TRICS® database that match these parameters, and highlights those used to inform the trip generation for the Proposed Development. One site was found to match all of these parameters however this limited number is considered acceptable as the site is characteristic of the proposed development.

Table 5.1 Residential Land Use - TRICS Site Selection

	TOWN/ DISTRICT	LOCATION	NO. OF DWELLINGS	SELECTED
1	Liphook	Suburban Area	36	Y

5.2.2 The residential trip rates per bedroom are provided in **Table 5.2** overleaf. Full TRICS® output data is contained at **Appendix B** for information.

Table 5.2 Vehicle Trip Rate per Bedroom

TIME	ARRIVALS	DEPARTURES	TOTAL
08:00-09:00	0	0.09	0.09
17:00-18:00	0.09	0.06	0.15
07:00-19:00	0.41	0.39	0.79

TRICS (v 7.2.4)

5.2.3 As Plot 1 incorporates the redevelopment of an existing residential dwelling which is already generating trips, it has been discounted from the assessment.

5.2.4 Proposed for Plot 2 is a 6 bedroom dwelling; therefore given the size of the house, trip rates have been calculated using bedrooms rather than units to provide a more robust assessment. The resultant trip generation figures are displayed within **Table 5.3** below.

Table 5.3 Vehicle Trip Generation

TIME	ARRIVALS	DEPARTURES	TOTAL
08:00-09:00	0	1	1
17:00-18:00	1	0	1
07:00-19:00	3	3	6

TRICS (v 7.2.4)

5.2.5 **Table 5.3** shows a total of 6 two-way daily vehicle trips, with 1 departure during the AM peak and 1 arrival during the PM peak.

5.2.6 The Proposed Development includes two car parking spaces for each unit. Therefore, as a worst case the maximum number of vehicle movements will be two outbound vehicular trips and two inbound vehicular trips during any peak period. Using TRICS analysis the vehicular movements is anticipated to be lower than this worst case and hence it is concluded that there will be no significant impact of the development on the local highway network.

6. ACCESS ARRANGEMENTS

6.1 General

6.1.1 This section of the TS provides details of the two Site accesses permitted to connect the site with the B158 High Road, and the proposed amendments as part of the Section 73 application.

Existing Unit Access

6.1.2 The existing access in the north east corner of the Site will remain in the same location and will serve one of the residential developments. This is as per the existing arrangement and is therefore not considered to have an impact on the current operation of the highway network.

Consented Access

6.1.3 An additional access serving Plot 2 of the Site was granted as part of the 2016 planning permission, and this was to be located 95m south of the existing access, directly from the B158 High Road. While Design Manual for Roads and Bridge (DMRB) standards (TD 42/95) states that a visibility of 215m is required on a derestricted road, a Road Safety Audit undertaken by SYSTRA (previously JMP) to inform the previous TS for the Site demonstrated that 85th percentile road speeds on the B158 High Road are 41 miles per hour. The access was designed and consented with visibility splays of 2.4m x 156m, which exceeded the requirement for a 40mph speed limit and was only 4m short of the 50mph speed limit requirement.

Design Standards

6.1.4 The amended access has been designed in accordance with HCC's 'Roads in Hertfordshire, Highway Design Guide 3rd Edition' and based on a topographical survey.

6.1.5 A design speed of the B158 High Road of 41 miles per hour has also been used in the design of the amended access. This is considered to be acceptable due to the observed speeds that were recorded on the B158 High Road to inform the TS for the Consented Development, and the relatively low traffic movements associated with the proposed access. This assumption was also validated by the Road Safety Audit that was undertaken, and this has been included in **Appendix C** of this document.

Amended Access Design

6.1.6 The Applicant proposes a new location for the Site's second access, shown in the drawings in **Appendix A**. Plot 2 will continue to access from the B158 High Road, but the access point will be approximately 16 metres further north of the location permitted by the Consented Development. The access will therefore be approximately 80 metres south of the existing access servicing Plot 1.

6.1.7 Given the unrestricted nature of the road, visibility is the principal consideration with regards to highway safety. The proposed access location aims to maximise visibility, as it places the access on the outside of the bend in the road fronting the Site. The amended access can be seen from 180m away by vehicles travelling southbound and from 195m away by vehicles travelling northbound. This represents an improvement on the consented access, for which visibility was 200m to the north and 155m to the south. The improvement to the southbound visibility is particularly beneficial to highway safety given that the speed limit is unrestricted for a greater distance than to the north of the Site, which changes to 30mph approximately 20m from the existing Site Access.

6.1.8 The amended proposals comply with the requirement for a 50mph speed limit (2.4m x 160m), providing some vegetation within the Site to the north of the access is cut back, and one of the four chevron signs to the south is to be moved by 0.5m outside the visibility splay. Positioning this sign back against the fence and rotating it by 7° ensures the visibility splay is kept clear, while the sign remains visible for southbound vehicles.

6.1.9 The proposed access location is offset with respect to the Great Oak House and Mulberry House access on the opposite side of the B158. The proposed arrangement entails a left / right stagger, with a distance of 11m between the centrelines of the minor road accesses. This arrangement is in line with DMRB recommendations, as it minimises potential conflicting movements, particularly for vehicles turning right from the main road into the Site. A reduction in stagger distance or a left / right stagger could create conflicting movements with potential for queuing or collisions.

6.1.10 The 10m stagger is also deemed sufficient to discourage drivers from performing U-turn manoeuvres using the vehicle crossovers, which would present risks to highway performance and safety.

7. SUMMARY & CONCLUSION

7.1.1 SYSTRA Ltd. has been commissioned by Essendon Property Ventures Ltd. (the Applicant) to provide transport and highways consultancy services to support a Section 73 planning application with regards to The Spinney, High Road, Essendon, Hertfordshire, AL9 6HA (the Site).

7.1.2 A planning application for the Site was granted in October 2016, and this permitted a scheme comprising the erection of two dwellings following demolition of the existing buildings on Site (ref: 6/2016/1118/FULL). The consented proposals also included two car parking spaces per dwelling, and an additional access onto the B158 High Road.

7.1.3 This document provides an update to the TS produced by JMP Consultants (dated 07/03/2016), and demonstrates the transport and highways implications of an amended scheme for the Site. The alterations comprise the following:

- The proposed dwelling on Plot 2 will be relocated nine metres further south;
- Tree T12 will be removed;
- The boundary between Plot 1 and Plot 2 will be relocated further south to enlarge Plot 1; and
- The second site access, serving the proposed property on Plot 2, will be relocated further north by 16 metres.

7.1.4 The amended second access location has an improved visibility with respect to the consented access. It achieves a visibility splay in excess of 2.4m x 160m (50mph speed limit), providing vegetation is cut back to the north, and a chevron sign to the south is relocated by less than 1m. As per the consented access, visibility compliance has been based on the 85th percentile speeds of the road rather than the speed limit. The amended access retains a stagger with respect to the access on the opposite site of the road, minimising conflicting manoeuvre and mitigating any highways impact.

7.1.5 Servicing, waste collection and other delivery arrangements will remain as per the existing situation, directly from the B158 High Road.

7.1.6 The trip generation of the Site is not affected by the amendments to the planning consent. The multi-modal trip generation exercise undertaken for the previous consent for the Site found that the development is likely to generate an additional 6 total trips compared to the Site's existing use, including 1 departure during the AM peak and 1 arrival during the PM peak.

7.1.7 The Proposed Development is therefore considered to have negligible impact upon the local highway network.

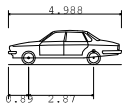
Report Appendix A

PROPOSED SITE LAYOUT PLANS

Notes:

Key:

- Site Red Line Boundary
- Proposed Kerb
- Existing Chevron Sign
- Proposed Chevron Sign



Large Car	
Overall Length	4.988m
Overall Width	1.793m
Overall Body Height	1.502m
Min Body Ground Clearance	0.287m
Track Width	1.700m
Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	6.200m

Existing access

11.23m

Proposed access

HIGH ROAD B158

5.00m

14.45m

Proposed slight repositioning of chevron to allow for access visibility

Large Car

Large Car

Large Car

Large Car

Large Car

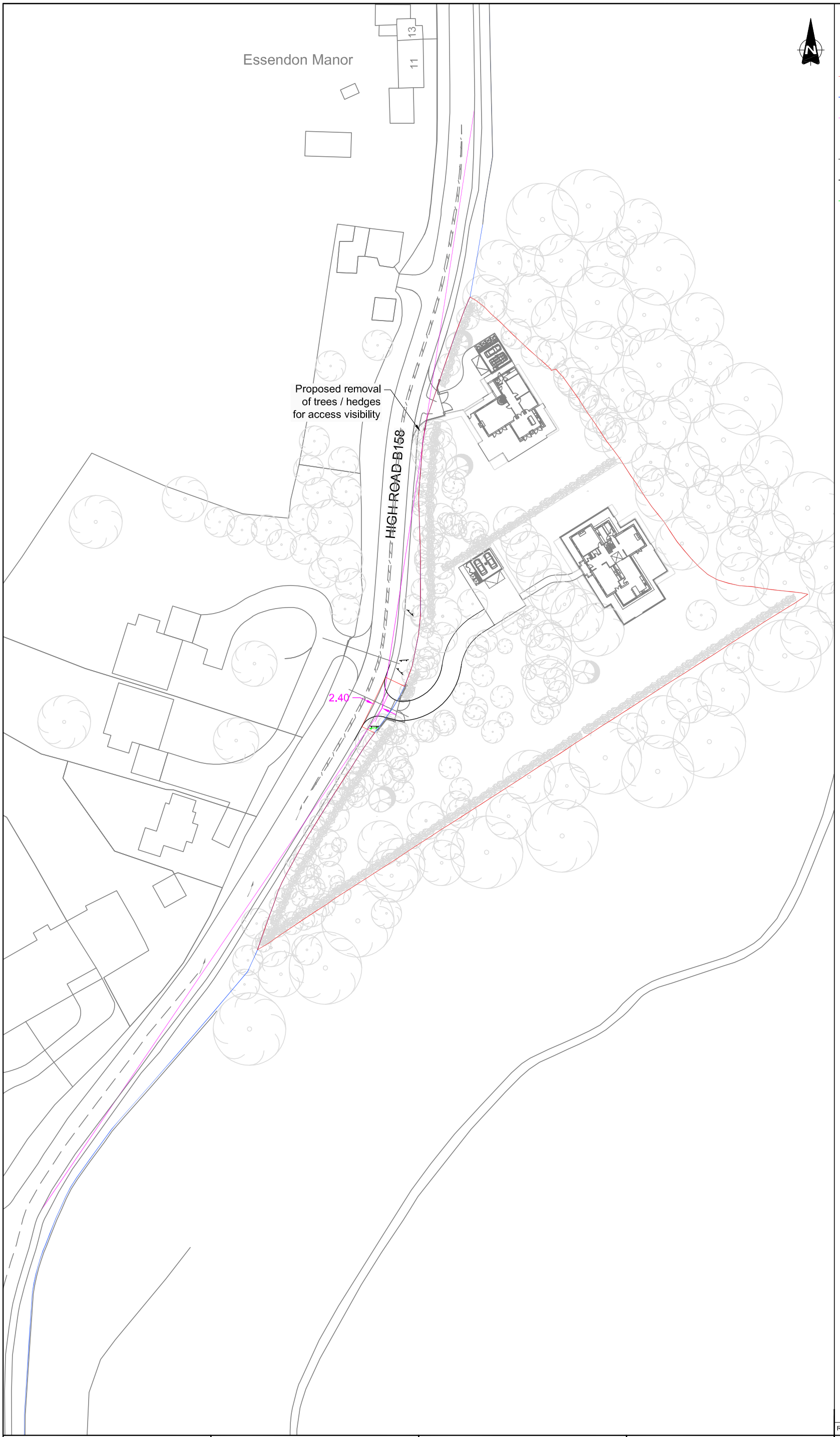
HIGH ROAD B158

Rev.	Date	Revision details	Drawn	Checked	Approved

SYSTRA
5 Old Bailey
London
EC4M 7BA
T 020 3714 4400
E uk_london@systra.com
W www.systra.co.uk

Client	Project	Title
Essendon Property Ventures Ltd	The Spinney, Essendon	Proposed Access Layout And Swept Path Analysis

Drawn	Checked	Approved
DH	GF	-
Original drg. size	**Date of Issue**	**Scale**
A3	07/06/2017	1:250
Drawing Status	**Drawing Number**	**Rev.**
Preliminary	106315-01	



Notes:

Key:

- Site Red Line Boundary
- Assumed Public Highway Boundary
- Visibility Splay according to TD42/95
  x distance = 2.4m
  y distance = 160m (50mph road)
- Proposed Kerb
- Existing Chevron Sign
- Proposed Chevron Sign

Rev.	Date	Revision details	Drawn	Checked	Approved

SYSTRA
5 Old Bailey
London
EC4M 7BA
T 020 3714 4400
E uk_london@systra.com
W www.systra.co.uk

Client: Essendon Property Ventures Ltd

Project: The Spinney, Essendon

Title: Proposed Layout
Visibility Splay

Drawn	Checked	Approved
DH	GF	-

Original drg. size	Date of Issue	Scale
A3	07/06/2017	1:1000

Drawing Status	Drawing Number	Rev.
Preliminary	106315-02	

Report Appendix B

TRICS OUTPUTS

Calculation Reference: AUDIT-846402-160307-0303

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED

MULTI-MODAL VEHICLES

Selected regions and areas:

02 SOUTH EAST
HC HAMPSHIRE 1 days

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

Filtering Stage 2 selection:

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

Parameter: Total Bedrooms
Actual Range: 130 to 130 (units:)
Range Selected by User: 103 to 717 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/07 to 12/11/15

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

Selected survey days:
Thursday 1 days

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

Selected survey types:
Manual count 1 days
Directional ATC Count 0 days

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

Selected Locations:
Suburban Area (PPS6 Out of Centre) 1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:
Residential Zone 1

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

Filtering Stage 3 selection:

Use Class:
C3 1 days

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

Filtering Stage 3 selection (Cont.):

Population within 1 mile:
5,001 to 10,000 1 days

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

Population within 5 miles:
25,001 to 50,000 1 days

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

Car ownership within 5 miles:
1.1 to 1.5 1 days

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

Travel Plan:
No 1 days

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

LIST OF SITES relevant to selection parameters

1 HC-03-A-17 HOUSES & FLATS HAMPSHIRE
CANADA WAY

LIPHOOK
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Total Bedrooms: 130
Survey date: THURSDAY 12/11/15 Survey Type: MANUAL

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL VEHICLES

Calculation factor: 1 TOTBED

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. TOTBED	Trip Rate	No. Days	Ave. TOTBED	Trip Rate	No. Days	Ave. TOTBED	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	1	130	0.023	1	130	0.062	1	130	0.085
08:00 - 09:00	1	130	0.000	**1**	**130**	**0.085**	1	130	0.085
09:00 - 10:00	1	130	0.015	1	130	0.000	1	130	0.015
10:00 - 11:00	1	130	0.038	1	130	0.000	1	130	0.038
11:00 - 12:00	1	130	0.023	1	130	0.023	1	130	0.046
12:00 - 13:00	1	130	0.031	1	130	0.023	1	130	0.054
13:00 - 14:00	1	130	0.008	1	130	0.054	1	130	0.062
14:00 - 15:00	1	130	0.038	1	130	0.023	1	130	0.061
15:00 - 16:00	1	130	0.038	1	130	0.023	1	130	0.061
16:00 - 17:00	1	130	0.046	1	130	0.015	1	130	0.061
17:00 - 18:00	**1**	**130**	**0.085**	1	130	0.062	**1**	**130**	**0.147**
18:00 - 19:00	1	130	0.062	1	130	0.015	1	130	0.077
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.407			0.385			0.792

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

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

Parameter summary

Trip rate parameter range selected:	130 - 130 (units:)
Survey date date range:	01/01/07 - 12/11/15
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL CARS

Calculation factor: 1 TOTBED

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. TOTBED	Trip Rate	No. Days	Ave. TOTBED	Trip Rate	No. Days	Ave. TOTBED	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	1	130	0.023	1	130	0.062	1	130	0.085
08:00 - 09:00	1	130	0.000	**1**	**130**	**0.085**	1	130	0.085
09:00 - 10:00	1	130	0.015	1	130	0.000	1	130	0.015
10:00 - 11:00	1	130	0.038	1	130	0.000	1	130	0.038
11:00 - 12:00	1	130	0.015	1	130	0.015	1	130	0.030
12:00 - 13:00	1	130	0.031	1	130	0.023	1	130	0.054
13:00 - 14:00	1	130	0.008	1	130	0.054	1	130	0.062
14:00 - 15:00	1	130	0.038	1	130	0.023	1	130	0.061
15:00 - 16:00	1	130	0.038	1	130	0.023	1	130	0.061
16:00 - 17:00	1	130	0.046	1	130	0.015	1	130	0.061
17:00 - 18:00	**1**	**130**	**0.085**	1	130	0.062	**1**	**130**	**0.147**
18:00 - 19:00	1	130	0.062	1	130	0.015	1	130	0.077
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.399			0.377			0.776

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

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

Parameter summary

Trip rate parameter range selected:	130 - 130 (units:)
Survey date date range:	01/01/07 - 12/11/15
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL LGVS

Calculation factor: 1 TOTBED

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. TOTBED	Trip Rate	No. Days	Ave. TOTBED	Trip Rate	No. Days	Ave. TOTBED	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	1	130	0.000	1	130	0.000	1	130	0.000
08:00 - 09:00	1	130	0.000	1	130	0.000	1	130	0.000
09:00 - 10:00	1	130	0.000	1	130	0.000	1	130	0.000
10:00 - 11:00	1	130	0.000	1	130	0.000	1	130	0.000
11:00 - 12:00	**1**	**130**	**0.008**	**1**	**130**	**0.008**	**1**	**130**	**0.016**
12:00 - 13:00	1	130	0.000	1	130	0.000	1	130	0.000
13:00 - 14:00	1	130	0.000	1	130	0.000	1	130	0.000
14:00 - 15:00	1	130	0.000	1	130	0.000	1	130	0.000
15:00 - 16:00	1	130	0.000	1	130	0.000	1	130	0.000
16:00 - 17:00	1	130	0.000	1	130	0.000	1	130	0.000
17:00 - 18:00	1	130	0.000	1	130	0.000	1	130	0.000
18:00 - 19:00	1	130	0.000	1	130	0.000	1	130	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.008			0.008			0.016

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

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Parameter summary

Trip rate parameter range selected:	130 - 130 (units:)
Survey date date range:	01/01/07 - 12/11/15
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL MOTOR CYCLES

Calculation factor: 1 TOTBED

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. TOTBED	Trip Rate	No. Days	Ave. TOTBED	Trip Rate	No. Days	Ave. TOTBED	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	1	130	0.000	1	130	0.000	1	130	0.000
08:00 - 09:00	1	130	0.000	1	130	0.000	1	130	0.000
09:00 - 10:00	1	130	0.000	1	130	0.000	1	130	0.000
10:00 - 11:00	1	130	0.000	1	130	0.000	1	130	0.000
11:00 - 12:00	1	130	0.000	1	130	0.000	1	130	0.000
12:00 - 13:00	1	130	0.000	1	130	0.000	1	130	0.000
13:00 - 14:00	1	130	0.000	1	130	0.000	1	130	0.000
14:00 - 15:00	1	130	0.000	1	130	0.000	1	130	0.000
15:00 - 16:00	1	130	0.000	1	130	0.000	1	130	0.000
16:00 - 17:00	1	130	0.000	1	130	0.000	1	130	0.000
17:00 - 18:00	1	130	0.000	1	130	0.000	1	130	0.000
18:00 - 19:00	1	130	0.000	1	130	0.000	1	130	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.000			0.000

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

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Parameter summary

Trip rate parameter range selected:	130 - 130 (units:)
Survey date date range:	01/01/07 - 12/11/15
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Report Appendix C

STAGE 1 RSA (FEB 2016)

GM
TRAFFIC CONSULTANTS

THE SPINNEY

HIGH ROAD

ESSENDON

SITE ACCESS ARRANGEMENT

STAGE 1 ROAD SAFETY AUDIT

FEBRUARY 2016

GM
Traffic Consultants Ltd
Registered in England No. 07100121.
Registered Office: 7 Bournemouth Rd, Chandlers Ford Eastleigh, Hants, SO53 3DA

GM TRAFFIC CONSULT ANTS

Revision Status	Prepared by: (Name)	Checked by: (Name)	Approved by: (Signature)	Date Approved:
Original	Mark Barrett	Vimal Patel		24 February 2016
Designer's Response				
Authority's Response				
Audit Response				

Client:
JMP

Engineer:
GM
Traffic Consultants Ltd
2 Brook Close
North Baddesley
SO52 9FJ

Date: 24 February 2016

GM TRAFFIC CONSULTANTS

TABLE OF CONTENTS

1.0 INTRODUCTION

1.1 General

1.1.1 This report results from a Stage 1 Road Safety Audit (RSA) carried out on the site access arrangement associated with a new dwelling on the B158 High Road, Essendon.

1.1.2 The access will take the form of a vehicle crossover on the eastern side of the B158. Visibility splays have been provided based on the results of a seven day Automatic Traffic Counter (ATC) deployment undertaken in September 2015.

1.1.3 The RSA was carried out at the request of JMP.

1.1.4 GM Traffic Consultants Ltd carried out the Audit between 19th February and 24TH February 2016. The Auditors were:

Mark Barrett

V Patel, BEng(Hons), FIHE, HE CoC

1.1.5 The Audit Team are independent of the project design team and has had no other involvement with the project.

1.1.6 The report has been prepared in accordance with the Design Manual for Roads and Bridges (DMRB) Highways Directive (HD) 19/15.

1.1.7 Whilst reference is made to certain design standards, where safety may be compromised by a reduction in standard, this report is not intended to provide a design check. The Auditors have only reported on matters that might have an adverse effect on road safety in the context of the chosen design. No attempt has been made to comment on the justification of the scheme or the appropriateness of the design. Consequently, the Auditors accept no responsibility for the design or construction of the scheme.

1.1.8 The Audit consisted of a desktop study and a site visit, which was carried out on Tuesday 23rd February 2016 at 11:15. Traffic flows were light and the weather dry.

1.1.9 The recommendations in this report are aimed at addressing the road safety problems; however there may be other alternative acceptable ways to overcome a specific problem, when other practical issues are considered. The recommendations contained herein do not absolve the Designer of his/her responsibilities.

1.1.10 The Auditors would be pleased to discuss the acceptability of alternative solutions to problems identified during the Audit, and would encourage the Designer to consult them on this matter.

1.1.11 The LHA response to the RSA should be formally recorded and reported to the Designer and the RSA Team so that a record of the Audit process is contained in the *As Built* design pack to be provided and retained by the LHA on final completion.

2.0 ITEMS CONSIDERED

2.1 The Road Safety Audit was undertaken on the scheme detailed in the following documentation.

Drawing No.	Rev	Title
1511-A-21C	-	Site Plan Proposed Showing Root Protection
ST16284-002	-	Visibility Splay at Revised Access

2.2 The Audit Team have been informed of a departure from standards relating to the visibility splay from the proposed access based on the derestricted speed limit.

2.3 **The visibility splays for a derestricted road cannot be achieved to the south of the access. The results from the ATC undertaken in September 2015 identifies an 85th% speed of 41mph for northbound traffic and 41.8mph for southbound traffic. Based on the 85th% speeds and observations during the site inspection, the Audit Team raise no issues with the proposed visibility splays.**

3.0 MATTERS ARISING FROM THIS STAGE 1 RSA

3.1 No road safety issues have been identified following the review of the documents provided and the site inspection.

GM TRAFFIC CONSULTANTS

4.0 AUDITOR STATEMENT

4.1 I certify that this audit has been carried out in compliance with HD 19/15.

AUDIT TEAM LEADER

Mark Barrett

GM Traffic Consultants Ltd

Signed: ……

TEL: 07787 158 834

AUDIT TEAM MEMBER

Vimal Patel

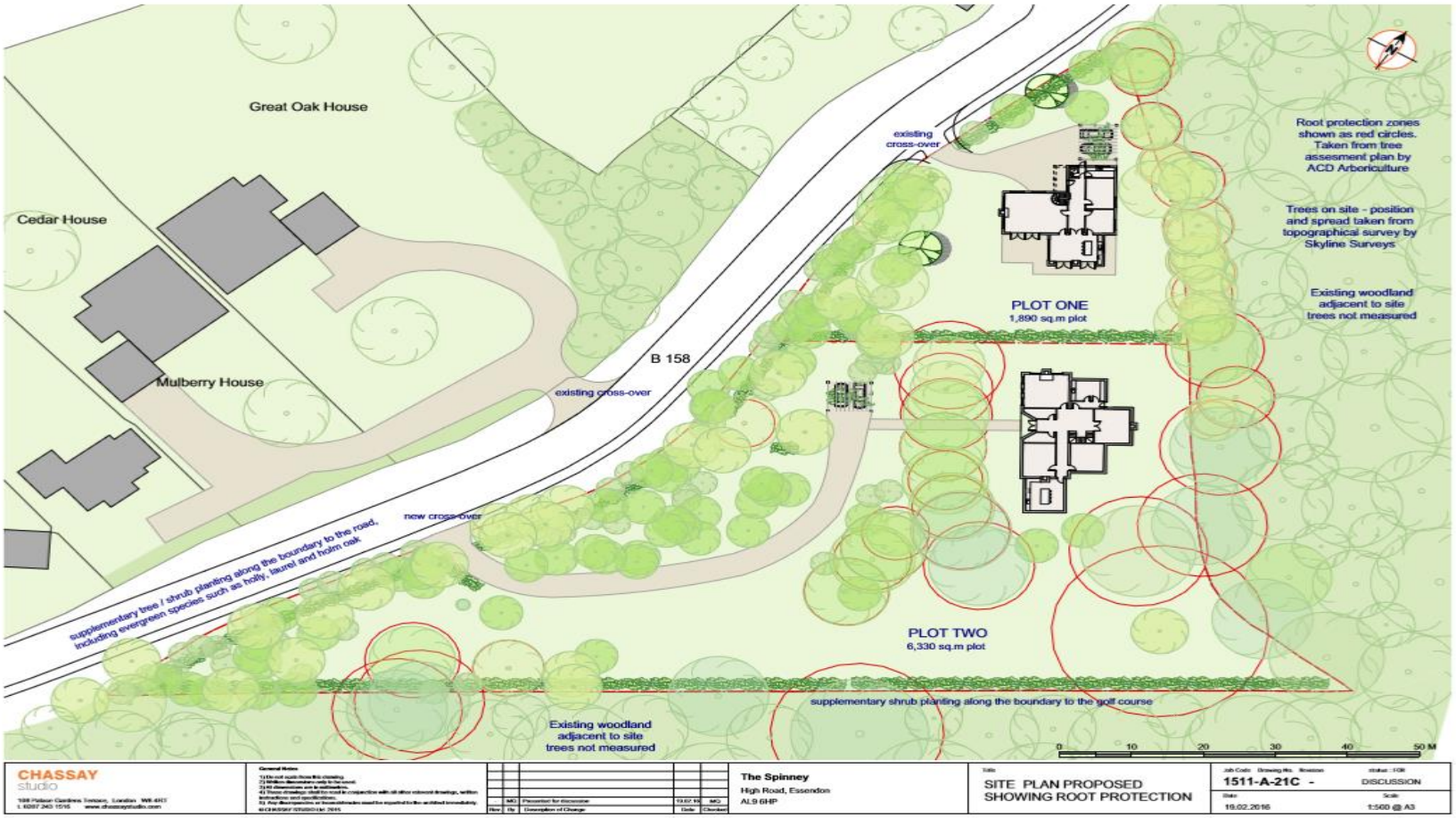
Signed: ……

Date: 24 February 2016

GM TRAFFIC CONSULTANTS

APPENDIX A: LOCATION PLANS

GM TRAFFIC CONSULTANTS



Road Safe
The Spinney, High Road, Essendon
Site Access Arrangement

Road Safe
The Spinn
Site Acces

GM TRAFFIC CONSULTANTS

GM TRAFFIC CONSULTANTS

APPENDIX B: DESIGNERS RESPONSE

Auditors: Mark Barrett (Team Leader) and Vimal Patel (Team Member).

Scheme: The Spinney, High Road, Essendon - Site Access Arrangement

Date Audit Completed: 24 February 2016

This response is to a Stage 1 Road Safety Audit to the design standard detailed within HD19/15 of Volume 5, Section 2, Part 2, of the Design Manual for Roads and Bridges, as detailed by the Highways Agency.

Problem no. in safety audit report	Problem accepted (yes/no)	Recommended measure accepted (yes/no)	Alternative measure (detail description)
NO ISSUES HAVE BEEN RAISED			

GM TRAFFIC CONSULTANTS

APPENDIX C: LOCAL HIGHWAY AUTHORITY RESPONSE

Principal Engineer's Statement:

Road Safety Audit for The Spinney, High Road, Essendon - Site Access Arrangement

I certify that I have considered the items that have arisen in the Stage 1 Road Safety Audit Report and I am content to accept all of its recommendations except for the ones listed above. I have stated my reasons for not accepting them and I seek the Chief Engineer's endorsement of my proposals.

..... Date.....

Principal Engineer

Chief Engineer's Decision:

I accept these proposals by the Principal Engineer.

GM TRAFFIC CONSULTANTS

..... Date.....

Chief Engineer

SYSTRA provides advice on transport, to central, regional and local government, agencies, developers, operators and financiers.

A diverse group of results-oriented people, we are part of a strong team of professionals worldwide. Through client business planning, customer research and strategy development we create solutions that work for real people in the real world.

For more information visit www.systra.co.uk

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