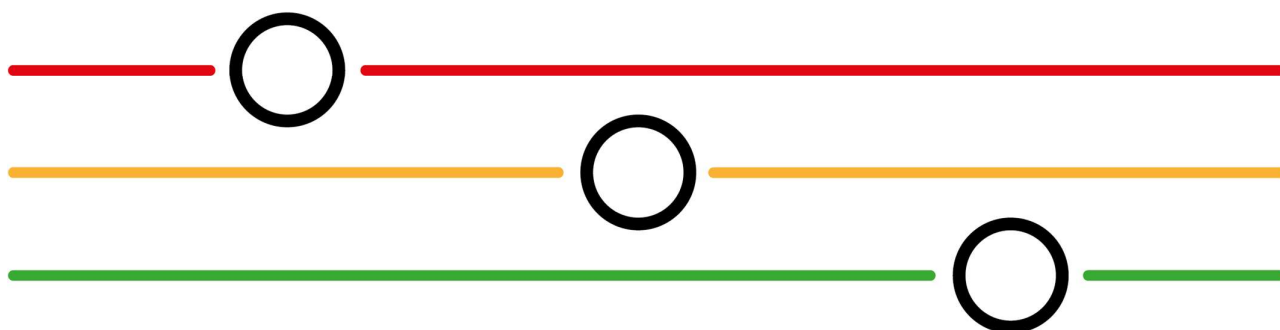




EG Group Ltd

Proposed Drive-Thru Units, Holt Road, Wrexham

Transport Statement

3702521



APRIL 2021

Report Details

Report Number:	3702521-TS
Report Title:	Transport Statement, Proposed Drive-Thru Units, Holt Road, Wrexham
Client:	EG Group Ltd
Date:	29 April 2021
Status:	-

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1 Introduction

1.1 General

Dynamic Transport Planning Ltd is instructed by EG Group Ltd to report on the anticipated highways and transportation issues related with the proposed development of two drive-thru units on land situated off the A5156/A534/Holt Road/Services roundabout, Wrexham.

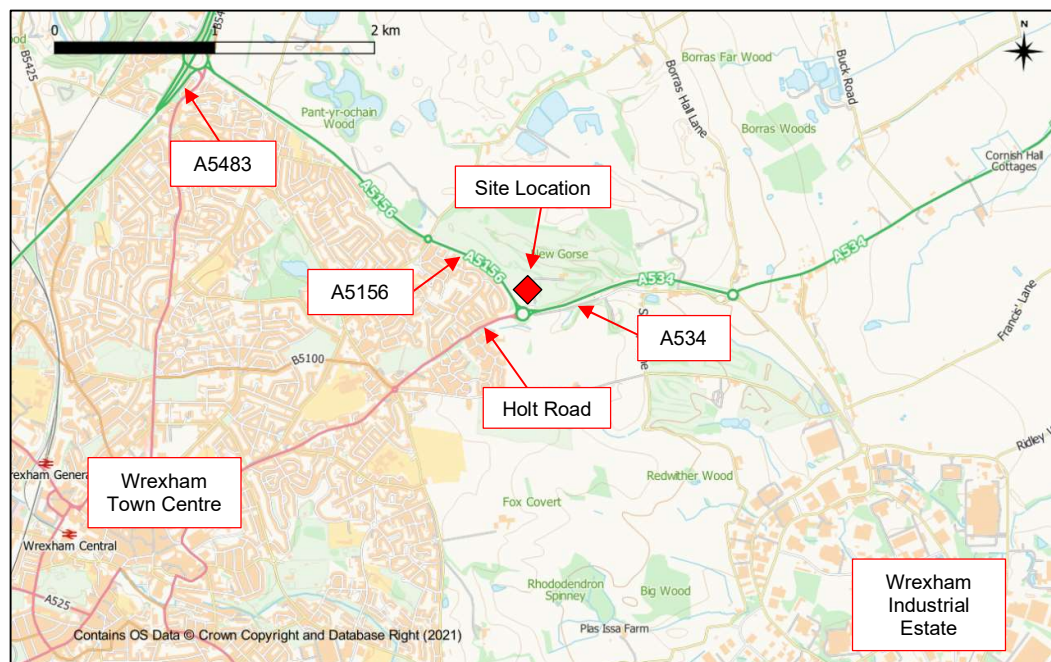
1.2 Site Location

The proposed development site is located adjacent to Holt Road Services which is accessed from the north-eastern arm of the roundabout. The access is also a shared with Wrexham Gold Club located north-east of the site.

The site is situated approximately 3.5km north-east of Wrexham Town Centre and 2.5km north-west of Wrexham Industrial Estate. The A483(T) Trunk Road is located approximately 2.5km to the north-west of the site.

The location of the site is illustrated at **Figure 1.1** below:

Figure 1.1: Site Location Plan



1.3 Planning History

The site is located within the administrative area of Wrexham County Borough Council (WCBC), who act as both Local Highway Authority and Local Planning Authority.

The application site and adjacent land currently occupied by Holt Road Services has been subject to previous historical planning applications, with the most recent/relevant applications summarised below:

- Application Ref. P2017/0527: Outline Application (with all matters reserved apart from access) for roadside services incorporating a petrol filling station and ancillary kiosk – Approved; and
- Application Ref. P2016/0630: Outline Application (with all matters reserved apart from access) for roadside services incorporating a petrol filling station with ancillary kiosk, family pub/restaurant and drive-thru restaurant – Withdrawn.

It is also understood that the site benefits from previous planning permission for a hotel/leisure complex although this has now lapsed. These proposals comprised of a hotel accommodation block with a fitness centre together with a pub/restaurant and children's playbarn.

The application was considered at a similar time to the proposed upgrading of the A5156 and adjacent roundabout which is now open and it is presumed that development on the land would have been taken into account for the roundabout design given the provision of a stub road off the roundabout now serving Holt Road Services and Wrexham Golf Club.

1.4 Purpose and Structure of Report

The purpose of this report is to examine the development proposals in the context of the application site, review the layout proposals including swept-path analysis, calculate the trip generating potential of the proposed development and review the accessibility of the site by all modes of transport.

In order to provide a robust assessment, this Transport Statement also assess the impact of the proposed development on the local highway network.

In accordance with best practice this Transport Statement (TS) has been prepared in reference to the Department for Transport's (DfT's) "*Guidance on Transport Assessment*" document and Welsh Assembly Government's "*Planning Policy Wales Technical Advice Note (TAN) 18: Transport*".

This report is structured as follows:

- Section 2 sets out the existing conditions of and around the application site;
- Section 3 provides a description of the proposed development;
- Section 4 provides an appraisal of the site's accessibility by non-car modes of transport;
- Section 5 assesses the trip generating potential of the development proposals;
- Section 6 provides junction capacity assessments; and

- Section 7 presents the summary and conclusion.

2 Existing Conditions

2.1 General

The development site is located within the Local Planning and Highway Authority area of WCBC.

The site relates to an area of open grassland located adjacent to Holt Road Services which is accessed from the A5156/A534/Holt Road/Services roundabout. A public footpath, Public Right of Way (PRoW) BIE/2 currently routes through the site in a north-easterly direction from the A5156.

Holt Road Services, which forms the site's southern boundary, provides a 12-pump petrol filling station (PFS) with ancillary retail facility and on-site parking facilities. Wrexham Golf Club is located to the east with the A5156 running along the western perimeter of the site. Open grasslands/fields border the site to the north.

The site is located on the edge of large residential areas on the outskirts of Wrexham with the Wrexham Industrial Estate major employment zone to the south-east.

The A5656 and A534 provide access between Wrexham Industrial Estate and the A483(T) which then provides access to the A5(T) in the south and the A55 North Wales Coast Road to the north. To the east, the A534 routes towards Nantwich, Crewe and the M6.

2.2 Surrounding Highway Network

2.2.1 Site Access

Access to Holt Road Services is currently provided by the north-eastern arm of the A5156/A534/Holt Road/Services roundabout with access to Wrexham Golf Club provided approximately 30m into the access road by provision of a simple priority junction.

The road is a street-lit single carriageway approximately 7.6m wide and is subject to a 30mph speed-limit. It is supported by footways along both aspects with uncontrolled crossing facilities within the vicinity of the roundabout.

2.2.2 A5156 Acton-Llan-y-Pwll Link Road

The A5156 forms the north-western approach to the A5156/A534/Holt Road/Services roundabout and runs in a southeast/northwest alignment past the site up to the A483(T).

Along the site frontage, the A5156 is a dual-carriageway with kerbed central reserve and is subject to the national speed limit. Grass verges run alongside both aspects of the carriageway which is supported by street-lighting.

Dropped-kerbs and tactile paving are provided upon approach to the roundabout with the central island providing a pedestrian refuge.

2.2.3 A534 Holt New Road

Forming the eastern approach to the A5156/A534/Holt Road/Services roundabout, the A534 is a dual-carriageway with kerbed central reserve which routes on a south-easterly direction towards Wrexham Industrial Estate.

Within the vicinity of the site, it is a street-lit carriageway and is subject to the national speed limit.

Dropped-kerbs and tactile paving are provided within the vicinity of the roundabout with the central island providing a pedestrian refuge.

Although footway provision does not directly adjoin the carriageway, an off-road footway/cycleway routes directly to the south along the alignment of Sandy Lane. The footway/cycleway also continues along the southern perimeter of the roundabout towards Holt Road to the west.

2.2.4 A534 Holt Road

Holt Road forms the western approach to the A5156/A534/Holt Road/Services roundabout. It is a 30mph single carriageway which provides a direct route through local residential areas and on to Wrexham Town Centre.

It is supported by street-lighting with uncontrolled crossing facilities set-back approximately 70m back from the roundabout which provides a connection between a footway to the north and the footway/cycleway to the south of the roundabout.

Within the vicinity of the site, footway provision is present to the northern aspect of the carriageway although provision is provided along both aspects along the majority of the route towards Wrexham Town Centre.

2.3 Road Safety

Accident statistics have been obtained for the local highway network in the vicinity of the application site for the latest available five years data from the Department for Transport (DfT) for the study area.

Two accidents of slight severity have been recorded within the vicinity of the A5156/A534/Holt Road/Services roundabout.

Both involved a collision between two cars, with one involving a young driver. None of the recorded incidents involved pedestrians, cyclists or motorcycles.

On review of the data and given the nature of the local highway network and associated traffic volumes it is considered that the existing accident record does not demonstrate any pre-existing patterns or trends of incidents that could be affected by the development proposals.

3 Proposed Development

3.1 General

The development proposals for the site are for the construction of a 200m² drive-thru coffee shop and 205m² drive-thru restaurant which will form additional provision at the existing Holt Road Services.

The drive-thru coffee shop will be situated to the eastern aspect of the site with the drive-thru restaurant to the west with a central shared parking area. Access into the site will be provided from the adjacent services site.

The proposals will involve a minor diversion of PRow BIE/2 which will be subject to a separate Public Path Diversion Order and will run along the site's southern aspect. Internal zebra-crossing style facilities will support pedestrian provision through the site and along the PRow.

The proposed layout of the site can be found at **Appendix 1** of this report.

3.2 Proposed Site Access and Internal Arrangements

Pedestrian access to the drive-thru units will be provide from the adjacent Holt Road Services by provision of a footway connecting to existing pedestrian provision within the services site. Internal zebra-crossing style facilities will also support pedestrian movements within the site.

Vehicular access into the site will be taken from the rear of the adjacent services from the existing access road which runs along the western aspect of the PFS forecourt. The proposed drive-thru site will be subject to one-way operation with access from the west and egress to the east where vehicles would route around the PFS.

A swept-path analysis for a large car has been undertaken for the drive-thru lane, together with an assessment of servicing operations which would include daily fresh produce deliveries by a 7.5t Box Van. The vehicle tracking is shown on the plan included at **Appendix 2**.

3.3 Parking Provision

The development proposals include the provision of 50no. parking spaces, including 4no. mobility standards spaces with two spaces allocated in close proximity to each of the building's pedestrian access points.

The proposed level of parking provision has been assessed with regard to local parking standards detailed within WCBC Local Planning Guidance Note No. 16 'Parking Standards' which require a maximum provision of one parking space per 4m² public floor space for A3 land-uses (pubs, restaurants, cafes and hot food take-aways).

When applied to the development proposals totalling approximately 250m² public floor area, this would generate a maximum standard of 63 spaces across the site. The proposed level of parking provision therefore complies with local parking standards and is also considered suitable by the operator given their experience of operating various similar sites throughout the UK.

Cycle parking provision has also been assessed with regard to local standards which require a minimum provision of one cycle parking space per 40m² public floor area. The proposed development would therefore provide a minimum of seven cycle parking spaces across the site with provision of Sheffield Cycle Stands.

4 Access by Non-Car Modes

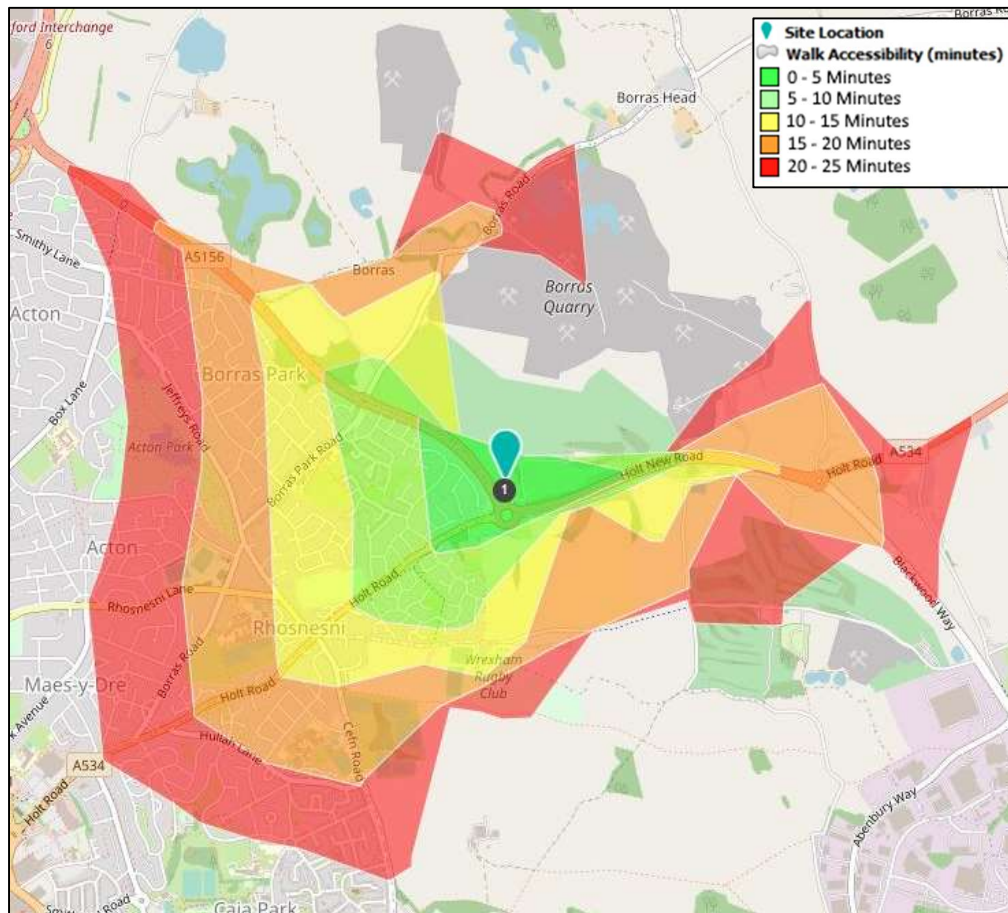
4.1 General

As required by planning policy, a review of access by all modes of travel has been undertaken. The options for accessing the site by sustainable modes are discussed in more detail below.

4.2 Pedestrian Access

Relevant guidance provided in Manual for Streets (MfS) states that walking offers the greatest potential to replace short car trips, particularly those under 2km. A walk accessibility plan provided at **Figure 4.1** below highlights the accessible walking area within a 2km catchment of the site, equivalent to 25 minutes.

Figure 4.1 – Walk Accessibility Plan (NTS)



Map Data © OpenStreetMap Contributors (2021)

The above shows that the site is well accessed by the surrounding residential areas of Rhosnesni and Wrexham with the 2km catchment reaching the eastern aspect of Wrexham Town Centre.

stops are also located along Holt Road which serve the 5 Gold between Wrexham and Plas Coch.

A summary of the local bus services is provided in **Table 4.1** below:

Table 4.1 – Bus Service Summary

Service	Route Description	Core Weekday Frequency
35	Wrexham Circular	Hourly
5 Gold	Wrexham - Plas Coch	90-minutes

Source: Moovit

As the table demonstrates, bus service no. 35 provides a regular hourly service between the site and Wrexham Town Centre with the 5 Gold providing a less-frequent service between Wrexham and Plas Coch. The above services therefore provide opportunities, particularly for staff, to travel to the site.

4.4.2 Train

The closest railway station is located at Wrexham Central, approximately 2.5km west of the site within the town centre. Although it may be situated in excess of a reasonable walking journey for some, it is well situated for access as part of a multi-modal journey by bike or bus.

Wrexham Central Station is one of two in the town centre (along with Wrexham General) and is served by Transport for Wales.

Both stations provide regular services to destinations such as, Birmingham International, Holyhead, Bidston and Shrewsbury.

4.5 Accessibility Summary

Overall, it can be summarised that the site offers potential for some journeys, particularly by those undertaken by staff, to be undertaken by modes other than car.

5 Development Trip Generation

5.1 General

This chapter provides an estimation of the likely levels of trip generation resulting from the proposed drive-thru units on the adjacent local highway network.

5.2 Trip Generation

The trip rates associated with the recently approved drive-thru unit located at Wrexham Asda (Application Ref. WRA/P/2020/0200) have been taken forward for assessment, summarised as follows:

Table 5.1: TRICS Trip Rates (per GFA) for the proposed Drive-Thru Unit

	Weekday AM Peak Hour (0800-0900)		Weekday PM Peak Hour (1700-1800)	
	Arrivals	Departures	Arrivals	Departures
Vehicles	6.557	5.621	12.5	12.286

The above trip rates have been applied to the GFA of the proposed development, which totals approximately 405m², to provide the anticipated vehicle movements, as shown in **Table 5.2** below:

Table 5.2: Estimated Trip Generation – Drive-Thru Units

	Weekday AM Peak Hour (0800-0900)		Weekday PM Peak Hour (1700-1800)	
	Arrivals	Departures	Arrivals	Departures
Vehicles	27	23	51	50

The results show that during the busiest hour, the proposed drive-thru units would result in around 100 two-way trips, equating to less than one arrival and one departure per minute.

However, it should be noted that the drive-thru units will form part of the Holt Road Services site and will generate a level of 'linked' trips between the proposed drive-thru units and adjacent PFS.

Furthermore, the proposed development is located as such to draw trade from passing vehicle traffic on the surrounding highway network. As such, the proposed development is likely to generate a relatively low level of 'new' or 'primary' vehicular trips.

5.3 Trip Types

Due to the proximity of the adjacent services, a 10% linked trip reduction in trip generation has been applied which is considered to be a robust assessment. The resultant trip generation is provided in **Table 5.3**:

Table 5.3: Estimated Trip Generation with Linked Trips - Drive-Thru Units

	Weekday AM Peak Hour (0800-0900)		Weekday PM Peak Hour (1700-1800)	
	Arrivals	Departures	Arrivals	Departures
Vehicles	24	20	46	45

The above table shows that with the application of 10% linked trips, the level of trips would reduce around 90 two-way movements during the busiest peak-hour period.

The level of 'new' trips taken forward for assessment has been based on the approved trip types assessed as part of the adjacent services development, which considered 10% new trips and 90% pass-by trips from the adjacent A5156/A534/Holt Road/Services roundabout:

Table 5.4: Estimated Trip Generation by Trip Type – Drive -Thru Unit

	Weekday AM Peak Hour (0800-0900)		Weekday PM Peak Hour (1700-1800)	
	Arrivals	Departures	Arrivals	Departures
New	2	2	5	5
Pass-by	22	18	41	40

The above table shows that the proposed development is likely to generate a maximum of 10 new trips during the busiest peak-hour period, equating to one new vehicle movement every 6 minutes.

Although the above indicates that the proposed drive-thru units are unlikely to have a material impact on local highway safety or operations, the impact of the proposed development on the A5156/A534/Holt Road/Services roundabout has been assessed in order to provide a comprehensive assessment.

6 Anticipated Highway Impacts

This chapter describes the impact of the trips generated by the proposed development on the operation of the A5156/A534/Holt Road/Services roundabout.

6.1 Baseline Traffic Data

As new traffic flow data will not be representative due to the impact of the COVID-19 pandemic, baseline traffic count data for the roundabout has been obtained from the 2016 traffic count surveys contained within the Transport Assessment (produced by Sanderson Associates), associated with the approved planning application for the adjacent Holt Road Services.

The manual traffic count survey was undertaken on Friday 13th May, which identified the following peak-hour periods:

- AM: 07:45 – 08:45am; and
- PM: 16:30 – 17:30pm.

The total junction inflow was recorded as 2,861 PCUs in the AM peak-hour and 2,776 PCUs in the PM peak.

The peak-period traffic flows and associated traffic figures are contained within **Appendix 3**.

6.2 Committed Developments

Development traffic flows associated with the approved services have been considered as a committed development, with associated traffic flows extracted from the application's Transport Assessment.

The Transport Assessment included a committed development associated with an approved outline application at Wrexham Industrial Estate (Application Ref. P/2013/0671). The committed development flows have therefore been extracted from the Transport Assessment and have been taken forward for assessment herein.

6.3 Assessment Scenarios

Capacity assessments have been undertaken for the following scenarios to ensure that the junction can operate with the proposed development in place at opening, and in the future:

- 2021 (opening year) + base + committed development;
- 2021 (opening year) + base + committed development + development;
- 2026 (5 years post-registration/opening) + base + committed development; and

- 2026 (5 years post-registration/opening) + base + committed development + development.

To account for background traffic growth, the observed traffic flows have been factored using the DfT's TEMPRO 7.2b computer programme. Growth rates for 'car drivers only' were selected with the trip end type being defined as 'origin/destination'.

Trip rates were obtained for the weekday AM and PM peaks. Once the trip rates were calculated, an adjustment was applied to provide a local growth rate. A growth calculation for 'Principal' roads was weighted to each TEMPRO growth rate.

The growth factors are summarised in **Table 6.1** below:

Table 6.1 – TEMPRO Growth Factors

	TEMPRO Growth Factors	
	AM	PM
2016 - 2021	1.0387	1.0384
2016 - 2026	1.0814	1.0809

6.4 Trip Distribution

Each of the trip types detailed previously have been distributed differently in the assessments as set out below and illustrated at **Appendix 3**.

- 'New' (10%) development traffic distribution has been based on the recorded A5156/A534/Holt Road/Services roundabout entry proportions, with trips returning to their origin; and
- 'Pass-by' (90%) trip distribution has been based on the recorded A5156/A534/Holt Road/Services roundabout entry proportions with departures continuing to their original destination.

6.5 Assessment Methodology

JUNCTIONS 9 (ARCADY and PICADY modules) are used to assess capacity and delay of roundabout and priority junctions respectively. The software program uses geometric parameters along with traffic flows for the junction to assess its performance. The outputs of the modelling program are the Ratio of the Flow to Capacity (RFC) and predicted queue lengths (in Passenger Car Units (PCUs) for individual approaches.

An RFC value between 0 and 0.85 indicates that the junction is operating well within capacity. An RFC value between 0.85 and 1.0 means that the junction is still operating within capacity, but localised delays and queues may occur. An RFC value over 1.0 signifies that the junction will be operating above its predicted capacity. The following provides a summary of the operational analysis results in support of this assessment. A full copy of the model outputs is contained within **Appendix 4**.

6.6 A5156/A534/Holt Road/Services Roundabout

The results for the 2021 With and Without Development scenarios are summarised below:

Table 6.1 – A5156/A534/Holt Road/Services Roundabout 2021 Capacity Assessment

Approach	2021 Base + Committed Development				2021 Base + Committed Development + Development			
	AM Peak		PM Peak		AM Peak		PM Peak	
	RFC	MMQ	RFC	MMQ	RFC	MMQ	RFC	MMQ
A5156	0.81	5	0.37	1	0.82	5	0.37	1
Site/Services	0.3	1	0.22	1	0.35	1	0.27	1
A534 East	0.25	1	0.67	3	0.25	1	0.67	3
Holt Road	0.48	1	0.5	2	0.49	1	0.51	2

The results of the modelling show that the roundabout currently operates with spare capacity, with a maximum RFC of 0.81 and associated queue of five vehicles at the A5156 approach during the AM peak-hour period. The roundabout would continue to operate within capacity with the application of development traffic with a minor increase to 0.82 RFC on the A5156 approach, although with no impact on queuing.

The results for the 2026 With and Without Development scenarios are summarised below:

Table 6.2 – A5156/A534/Holt Road/Services Roundabout 2026 Capacity Assessment

Approach	2026 Base + Committed Development				2026 Base + Committed Development + Development			
	AM Peak		PM Peak		AM Peak		PM Peak	
	RFC	MMQ	RFC	MMQ	RFC	MMQ	RFC	MMQ
A5156	0.85	6	0.39	1	0.85	7	0.39	1
Site/Services	0.33	1	0.22	1	0.39	1	0.28	1
A534 East	0.26	1	0.7	3	0.26	1	0.7	3
Holt Road	0.51	2	0.53	2	0.51	2	0.54	2

The above table shows that the roundabout will continue to operate within capacity in 2026 baseline scenario. With the inclusion of development traffic, the roundabout will continue to operate within capacity with the A5156 approach RFC remaining at 0.85 with a queue increase of one vehicle.

Overall, the model results suggest that traffic associated with the proposed development would not have a material impact on the operation of the A5156/A534/Holt Road/Services roundabout.

7 Summary and Conclusions

Dynamic Transport Planning Ltd is instructed by EG Group Ltd to report on the anticipated highways and transportation issues related with the proposed development of two drive-thru units on land situated off the A5156/A534/Holt Road/Services roundabout, Wrexham.

The development proposals will form additional provision at the existing Holt Road Services and will be accessed via the adjacent services site.

A swept-path analysis has been undertaken for a 7.5t Box Van and large car to demonstrate that vehicles will be able to safely manoeuvre within the proposed development.

The level of car parking provision is shown to align with local parking standards, with proposed cycle parking to encourage access by bike.

The highway accident data has been reviewed for the most recently available five-year road safety record for the area surrounding the site. The data does not demonstrate any pre-existing patterns or trends of incidents that could be affected by the development proposals.

The accessibility of the site for non-car modes of travel has been assessed. It is considered that the site is located to allow for some journeys by sustainable modes, particularly for staff.

The trip generation assessment shows that the proposed drive-through units would generate around 10 new trips during the AM/PM peak-hour periods, with the majority being pass-by trips from the adjacent A5156/A534/Holt Road/Services roundabout.

Although the proposed development is likely to generate a relatively low level of new trips, a capacity assessment of the adjacent roundabout has been undertaken in order to provide a comprehensive assessment.

The assessments show that with the application of development related traffic, the roundabout will continue to operate within capacity during the 2021 and 2026 assessment year scenarios. The model results therefore suggest that traffic associated with the proposed development would not have a material impact on the operation of the A5156/A534/Holt Road/Services roundabout.

Overall, on the basis of the above assessment it is concluded that there are no outstanding reasons why the proposed development should not be granted planning permission on highways grounds.

Appendix 1

Proposed Site Layout

Appendix 2

Swept Path Analysis

Appendix 3

Traffic Figures

Appendix 4

Model Outputs
