Maple Grove Developments and Lancashire County Council

LANCASHIRE CENTRAL

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WSP

8 First Street
Manchester
M15 4RP

Phone: +44 161 200 5000

WSP.com

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1

INTRODUCTION

1 INTRODUCTION

1.1 BACKGROUND

1.1.1. WSP have been commissioned by Maple Grove Developments (MGD) and Lancashire County Council (LCC) to prepare a Transport Assessment (TA) in support of an outline planning application for a mixed-use development at the Cuerden Strategic site, herein referred to as Lancashire Central, located in South Ribble, Lancashire.

1.1.2. The proposals include a mix of land uses including employment, retail, leisure, health and residential use, with associated parking, green infrastructure, internal highway layout and pedestrian and cycle infrastructure provision.

1.1.3. The site is located to the west of the M65 terminus, south of the A582 Lostock Lane and to the east of Stanifield Lane. It is located south of Lostock Hall and Bamber Bridge and north of Farington and Leyland.

1.1.4. The site is proposed to be accessed via multiple new vehicle access junctions including the redesign and signalisation of the M65 terminus roundabout, a new access off the A49 Wigan Road, and two access points off Stanifield Lane.

1.2 DOCUMENT PURPOSE

1.2.1. The purpose of this TA is to fully assess the potential impact of the development on the surrounding transport network.

1.2.2. A Framework Travel Plan (FTP) accompanies this TA and it outlines how sustainable and active travel can be used to access the site, and how these sustainable modes of travel will be promoted to future users of the site.

1.2.3. This TA has been produced in accordance with local, regional and national policy guidance and highlights how the proposed development is located in a sustainable and accessible location and accords with the principles outlined in the planning policies. In accordance with the National Planning Policy Framework (NPPF), this TA assess the impact of the proposed development on the local highway network and concludes that the residual cumulative impacts of the development are not severe.

1.3 PLANNING HISTORY

1.3.1. A previous application (South Ribble Planning Reference 07/2017/0211/ORM) for a mixed-use development on the site was submitted on 27th January 2017 and approved on 20th December 2017. The application was for the following development:

Hybrid planning application comprising of Full and Outline development - Environmental Impact Assessment (EIA) development. Part 1 FULL - Retail floorspace (Use Classes A1 & A3) and associated car parking, site access, highway works, drainage and strategic landscaping; Part 2 OUT - Employment floorspace (Classes B1, B2 & B8), hotel (Class C1), health and fitness and leisure (Class D2), creche/nursery (Class D1), retail (Classes A1, A2, A3, A4 & A5), car showrooms (Use Class Sui Generis), residential (Classes C2/C3) and provision of associated car parking, access, public open space, landscaping and drainage (Access applied for) and affecting the setting of a Listed Building.

1.3.2. The application was supported by a Transport Assessment produced in December 2016 and Transport Assessment Addendum submitted August 2017 by Mott MacDonald.

1.3.3. The site, previously referred to as the Cuerden Strategic Site, is identified within the South Ribble Borough Site Allocations and Development Plan Document as a key employment site. Policy C4 – Cuerden Strategic Site states the following:

'Planning permission will be granted for development of the Cuerden Strategic Site subject to the submission of:

- *an agreed Masterplan for the comprehensive development of the site, to include employment, commercial, industrial and Green Infrastructure uses;*
- *a phasing and infrastructure delivery schedule;*
- *an agreed programme of implementation in accordance with the Masterplan and agreed design code.*

Alternative uses may be appropriate where it can be demonstrated that they may help deliver the strategic employment aspirations for this site.'

1.3.4. The 2017 application covers the entire Cuerden Strategic site. The red line boundary of the current application comprises only part of the allocated Cuerden Strategic Site but has been designed in a way to links to the remaining plots of land which are likely to come forward as future development zones (subject to separate applications). These remaining zones are referred to as 'Future Phase' zones within this TA and are owned by Brookhouse Group Limited. A northern 'Future Phase' zone is located in the northwest of the site, and two southern 'Future Phase' zones to the south and southwest of the site.

1.3.5. For the purpose of this Transport Assessment, the forecast traffic impacts of the entire Cuerden Strategic Site have been assessed including the proposed trip generation associated with the land within the revised red line boundary as well as the 'Future Phase' zones to provide a representative comparison between the previous and current applications.

1.3.6. Brookhouse Group Limited submitted two planning applications (07/2022/00245/FUL and 07/2022/00251) in March 2022 to provide new access points off Stanifield Lane and Old School Lane, to form access points to the 'Future Phase' zones to the north and south of the Strategic site. The planning applications are currently being considered by SRBC. As detailed further in Chapter 5 if these applications were approved, they would provide additional access points above the current proposals, therefore reducing traffic on the site accesses proposed within this TA.

1.3.7. This TA sets out a comparison between the approved planning application (07/2017/0211/ORM) and the revised proposals for Lancashire Central. The TA demonstrates that overall, the revised Lancashire Central proposals, including the 'Future Phase' plots, have a reduced vehicle trip generation and a reduced impact on the local highway network compared to the consented scheme.

1.3.8. As the previous application was accepted, the reduced impact on the highway network cannot be considered unacceptable.

1.4 SCOPE OF REPORT

1.4.1. The scope of this TA has been shared with Neil Stevens at LCC Highways and with National Highways via a scoping report issued on 15th October 2021. Comments were received from Neil

Stevens at LCC Highways by email on 30th November 2021 and by National Highways 9th November 2021.

1.4.2. The November 2021 comments are in addition to previous comments on the site provided within a Pre-Application Information Review Technical Note on 6th December 2019.

1.4.3. An additional meeting was held between WSP, LCC Planning and LCC Highways on the 5th of January 2022 to discuss the microsimulation modelling of the area. The comments provided on the microsimulation modelling have been considered in the preparation of this TA, with microsimulation modelling having been undertaken to support the technical work included within this TA.

1.4.4. The comments provided by LCC Highways and National Highways throughout the scoping process have been used to inform the preparation of this report. The scoping report produced by WSP and the scoping responses from LCC and National Highways are provided in Appendix A.

1.5 STRUCTURE OF REPORT

1.5.1. The remainder of this document is structured as follows:

- Chapter 2 – Assessment of existing conditions
- Chapter 3 – Description of proposed development
- Chapter 4 – National, regional and local policy compliance
- Chapter 5 – Trip generation and distribution
- Chapter 6 – Active Travel and Sustainable Transport
- Chapter 7 – Traffic capacity assessments
- Chapter 8 – Summary

2

EXISTING CONDITIONS

2 EXISTING CONDITIONS

2.1 INTRODUCTION

2.1.1. The existing conditions are outlined within this Chapter. This includes a description of the local highway network, as well as local pedestrian and cycle facilities. A review of public transport and nearby facilities accessible from the site is also provided, along with a review of local collision records.

2.2 SITE LOCATION

2.2.1. The site is located to the south of the settlements of Lostock Hall and Bamber Bridge in South Ribble, Lancashire. It is located approximately 4.5km south of Preston. The site is bordered by Stanifield Lane on its western edge, the A582 and the M65 on its northern edge, the A49 Wigan Road on its eastern edge. Open fields and a Quarry currently in use by JA Jackson Contractors to the south of the site. Figure 2.1 below shows the location of the site within the context of the local and strategic highway network.

Figure 2-1 - Site Location Plan

2.3 EXISTING HIGHWAY NETWORK

2.3.1. The site is well located for access to the Strategic Road Network (SRN). The site boundary borders the terminus of the M65. The M65 is an east-west route connecting southern Preston to nearby towns of Blackburn, Accrington, Burnley and Colne. The site is also approximately 1km from the access to the M6 via J29. The M6 is a strategic north-south route providing connections towards Lancaster, Carlisle and Scotland to the north, and towards Wigan, Merseyside, Cheshire and the West Midlands to the south. The M61, 3.5km to the east of the site, provides a strategic link to Chorley and Greater Manchester. The M6, M65 and M61 are part of the SRN and are retained by National Highways (NH).

2.3.2. The site is also well situated for access onto key local routes including the A6, located c. 650m from the site, which provides a north-south connection to Preston City Centre, and the A582 South Ribble Western Distributor Road which borders the north of the site.

M65 Terminus Roundabout

2.3.3. The M65 terminus roundabout adjacent to the site boundary is the western extent of the M65. The M65 terminus is currently a two-arm roundabout, with the M65 as the eastern arm and the link between the M65 and the A6 / A582 roundabout as the northern arm. There are two circulating lanes, however traversing the northern circulating carriageway is prohibited, with no entry to vehicles between the exit onto the link to the A6, and the entrance from the link from the A6. The access and egress to the DVSA Enforcement check site is located between the entrance arm of the M65 and the exit arm of the M65.

2.3.4. As discussed further in Chapter 3, the M65 terminus roundabout is proposed to serve as a site access, via the addition of a western arm.

M65/M6

2.3.5. The M65 reduces to one lane westbound approximately 700m from its terminus and merges with the M6 northbound off-slip from J29 approximately 170m from the roundabout entry. The speed limit on the approach to the terminus roundabout is 50 mph.

2.3.6. National Highways have ownership of the M65 and M6 slip up to the giveaway line of the roundabout, which is under the control of LCC.

2.3.7. Eastbound, the M65 has a two lane exit from the terminus and leads to the slips to the M65/M6 roundabout, which is a partially signalised, grade separated junction below the M65 main carriageway.

A582 South Ribble Western Distributor Road

2.3.8. The site is bounded by the A582 to the north. The A582 South Ribble Western Distributor is a radial route connecting Preston with the M65. It runs on an east-west orientation from its junction with the A6 to its junction with the B5253 Flensburg Way. The A582 then runs on a north-south orientation, from its junction with the B5253 towards Preston and its junction with the A59.

2.3.9. Adjacent to the site, the A582 Lostock Lane is a two-way dual carriageway with a 60mph speed limit.

Figure 2-2 - A582 at its junction with Old School Lane (Facing East)

2.3.10. A planning application for the dualling of the A582 was submitted by LCC on 27th February 2020 (LCC Planning Ref: LCC/2020/0014). This proposal would increase the capacity of the A582 to the west of the A582/Stanifield Lane roundabout, west of the development site. As of June 2022, the application is yet to be determined, and is therefore treated as an 'expected development' within this TA.

Stanifield Lane

2.3.11. Stanifield Lane is a two-way single lane carriageway with a speed limit of 60mph adjacent to the site boundary. Stanifield Lane runs on a north-south orientation linking Farington and Leyland to the south with the A582 and Lostock Hall to the north. Adjacent to the site, Stanifield Lane has a carriageway width of approximately 7.5m, is bordered by open fields and has a footway along its eastern carriageway, as seen in Figure 2.3.

Figure 2-3 - Stanifield Lane by Stoney Lane (Facing North)

2.3.12. To the south of the site, Stanifield Lane turns more residential in nature as it approaches Farington village and is subject to a 30mph speed limit. Gateway features mark the approach to Farington village.

2.3.13. Stanifield Lane meets the A582 at a signalised four arm roundabout to the northwest of the site. The traffic signals along with improved footway and cycle provision were introduced as part of an upgrade to the roundabout completed in 2016. Dedicated on-carriageway cycle lanes are provided to facilitate north-south cycle movements through the roundabout. Signalised pedestrian crossing facilities are also provided at this junction, connecting to existing footways.

2.3.14. Brookhouse Group Limited have submitted a planning application (07/2022/00245/FUL) for a vehicle access off Stanifield Lane, located in the southwest of the wider Cuerden Strategic site, south of the junction of Stanifield Lane and Fowler Lane. This would provide access to the southern plot of 'Future Phase' development, owned by Brookhouse Group Limited. This application remains live and if approved would provide an additional vehicle access to the wider Cuerden Strategic site.

A6

2.3.15. The A6 is a north-south route connecting Chorley in the south to Preston in the north. The A6 meets the A582 to the northeast of the site at a 4-arm signal-controlled roundabout, with the A6 as the northern and eastern arms.

2.3.16. East of the A582/A6 roundabout, the A6 proceeds though two signal-controlled junctions (A6/Cuerden Way and A6/Wigan Road) and connects with the M6 at a grade-separated roundabout. The route is 40 mph from the A582/A6 roundabout to its junction with Wigan Road junction and is fully lit.

2.3.17. North of its junction with the A582, the A6 has two lanes in each direction, is fully lit and is subject to national speed limit.

A49 Wigan Road

2.3.18. The A49 Wigan Road is a single carriageway road linking the A6 at the north with the B6258 Lancaster Lane to the south leading towards Euxton and Chorley. It passes under the M65 and the M6. The speed limit varies between 30 to 50 mph.

Old School Lane

2.3.19. Old School Lane is access only and is a single-track lane, as shown on Figure 2.4. It serves as an access to residential properties and is approximately 450m in length. At its northern end it meets the A582 at a priority controlled left-in-left-out junction and at its southern extent meets Stoney Lane. Old School Lane is outside of the red line boundary for the development site but runs between parcels of the development site.

Figure 2-4 - Old School Lane (Facing South)

2.3.20. Brookhouse Group Limited have submitted a planning application (07/2022/00251/FUL) for a vehicle access point off Old School Lane, via amendments to the existing junction of Old School Lane with the A582. This would provide access to the northern plot of 'Future Phase' development, owned by Brookhouse Group Limited, within the north-western area of the wider Cuerden Strategic Site. This application remains live and if approved would provide an additional vehicle access to the wider Cuerden Strategic site.

Stoney Lane

2.3.21. Stoney Lane is a single-track lane approximately 250m in length and runs from Stanifield Lane at its western extent, providing an access route to Old School Lane and terminates at properties to the east of Old School Lane. Stoney Lane is shown on Figure 2.5.

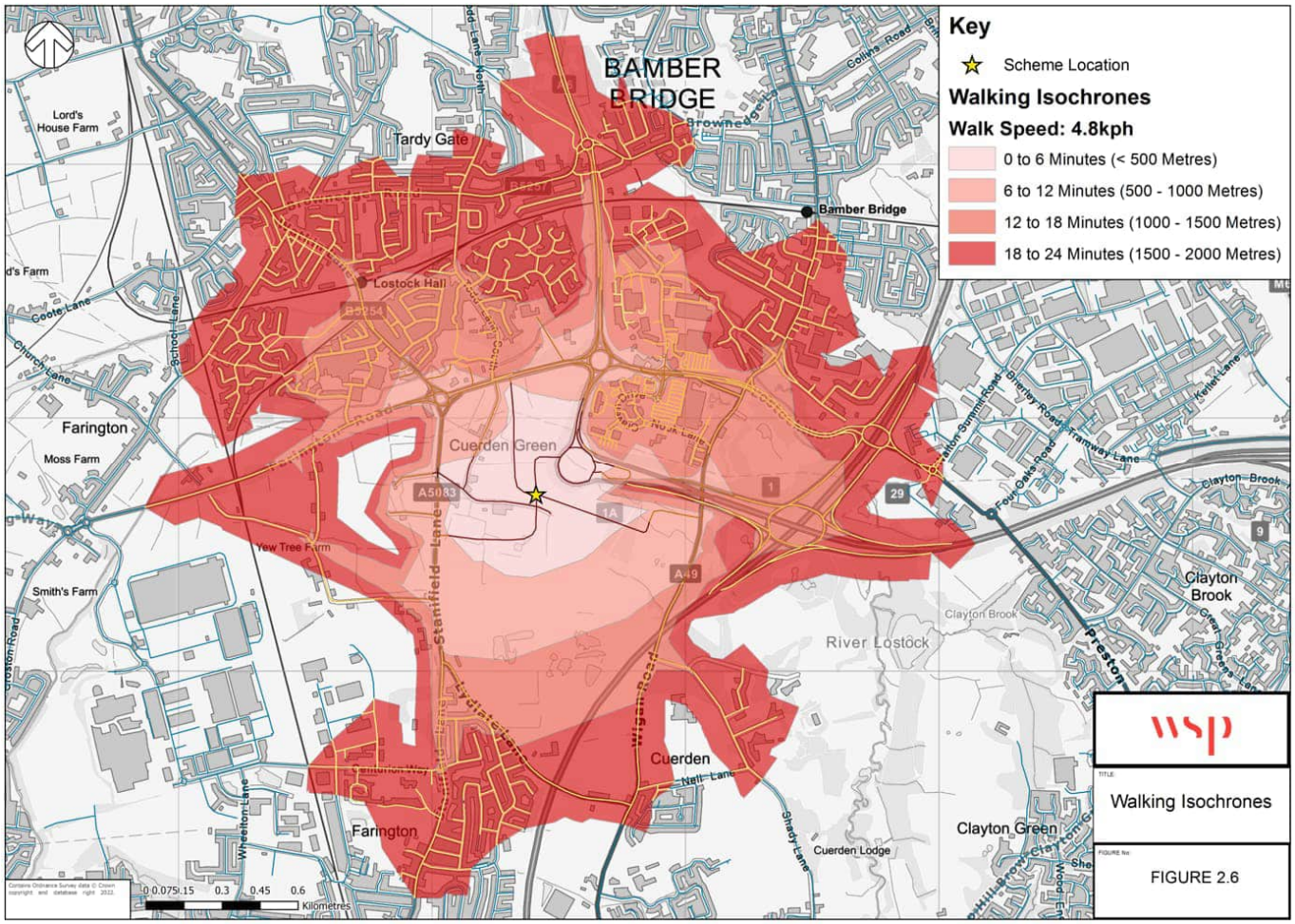
Figure 2-5 - Stoney Lane (Facing West)

2.4 ACTIVE TRAVEL

Pedestrian Infrastructure

2.4.1. Figure 2.6 shows the areas located within 25-minute walk of the site which includes Lostock Hall, Farington and parts of Bamber Bridge. Lostock Hall Rail Station is within a 15-minute walk of the site, and Leyland Station is approximately 30-minute walk from the site.

Figure 2-6 - Walking Isochrones



2.4.2. A footway is present on the eastern side of Stanifield Lane along the entire length of the site providing a pedestrian route towards Farington village to the south and to the A582 roundabout to the north. This route along Stanifield Lane has street lighting along its entire length.

2.4.3. Pedestrian facilities are also provided at the A528 / Stanifield Lane roundabout with signalised pedestrian crossing facilities and footways on all arms of the roundabout.

2.4.4. On its northern arm of the A528 / Stanifield Lane roundabout, footways are present on both sides of the Watkin Lane and provide a route to local facilities and residential properties along Watkin Lane and Lostock Hall. Footways along Watkin Lane provide a signposted pedestrian route to Lostock Hall Rail Station.

2.4.5. A582 adjacent to site a footway is present on the northern side of the A582 to the A6 and to retail and leisure facilities east of the A6.

PRoW

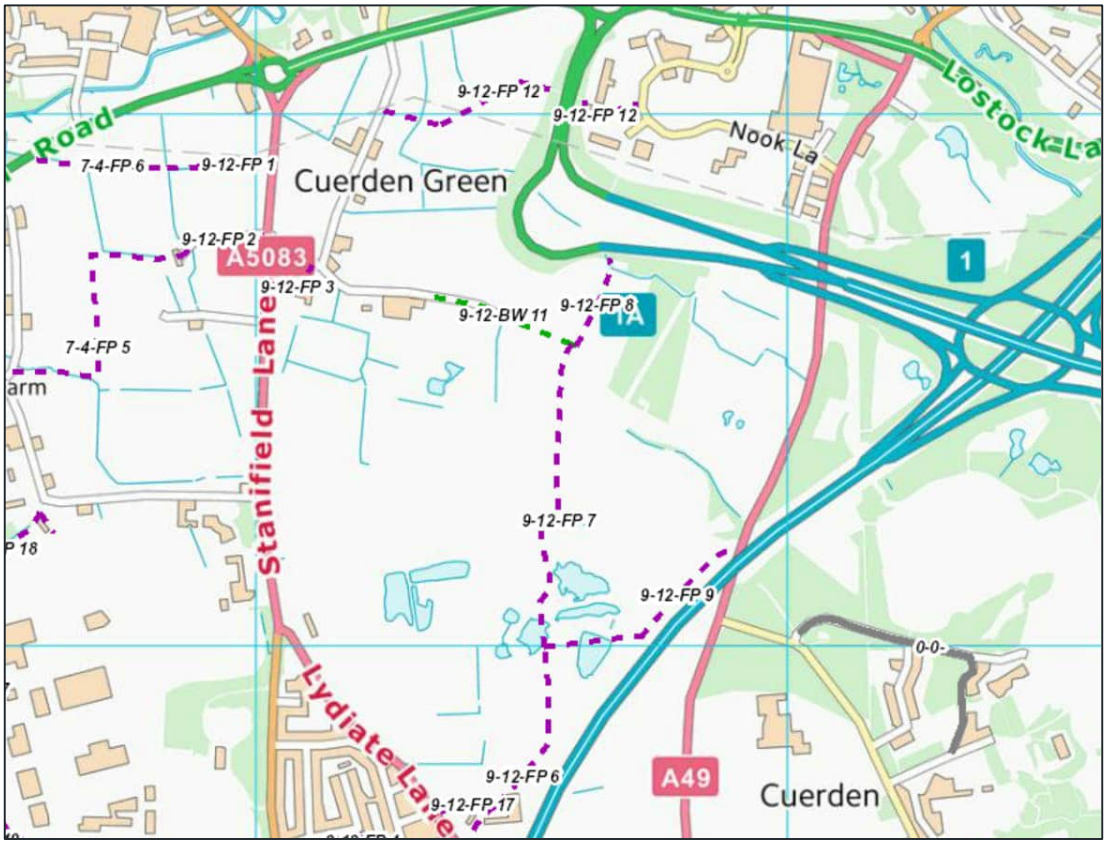
2.4.6. In addition to the paved footways, there are currently a number Public Rights of Way (PRoWs) crossing the Site as shown in Figure 2.7.

- Footpath 9-12 FP12 connects Old School Lane with the link north of M65 terminus.

- Footpath 9-12 FP6/FP7/FP8 run from the M65 in the north to Lydiate Lane in the south, connecting the site to existing residential areas in Farington.
- Footpath 9-12 FP9 connects from Footpath FP7 to the A49 Wigan Road to the east; and
- Bridleway 9-12-BW11 connects with Stoney Lane at its western extent and connects to the footway along present along Stanifield Lane.

2.4.7. These existing PRoWs will be retained, partially diverted and upgraded as part of the development. Details of the re-routing of the PRoW are described further in Chapter 3.

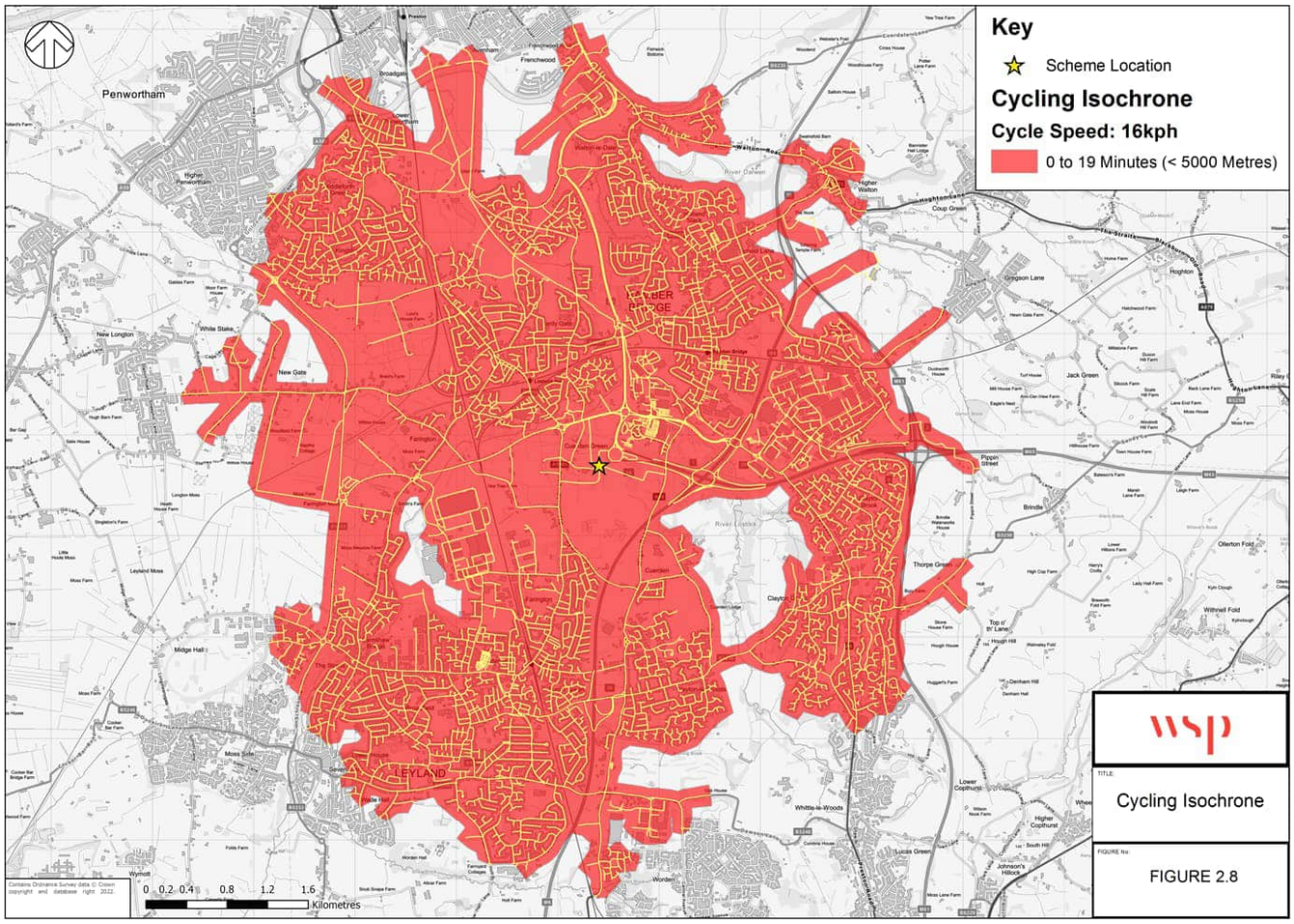
Figure 2-7 - Public Right of Way Plan (Source: LCC)



Cycle Infrastructure

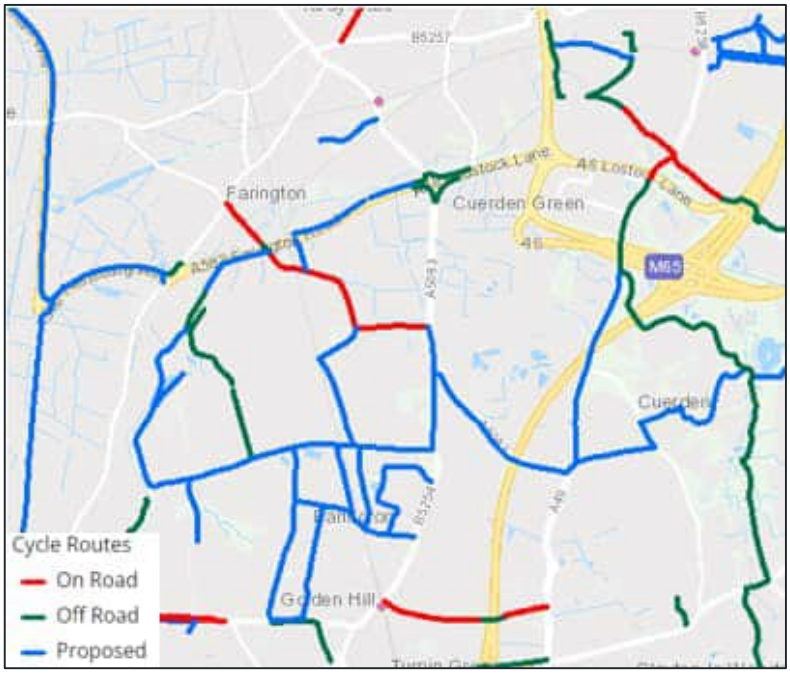
2.4.8. Figure 2.8 shows locations within a 5km cycle ride of the site. This includes Farington and Leyland to the south, and Lostock Hall, Bamber Bridge and towards Preston to the north.

Figure 2-8 - Cycling Isochrones



2.4.9. The National Cycle Route 55 runs north to south to the east of the Sile through Cuerden Valley Park and along Wigan Road, identified as the eastern most north-south green/red on Figure 2.9. The cycle route runs opposite the proposed Site access off Wigan Road, providing a connection point into the site. Route 55 also connects to existing cycle facilities on A582 and A6 to the north of the Site.

Figure 2-9 - LCC Cycle route map



2.4.10. The off-road cycle facilities at A582 / Stanfield Lane roundabout are also shown on the above cycle plan.

2.5 PUBLIC TRANSPORT

Bus

2.5.1. There are bus stops located on Stanfield Lane adjacent to the site. Table 2.1 provides a summary of the bus services and their frequencies. Route 109 runs a half hourly frequency to Preston, Lostock Hall to the north, and to Leyland, Euxton and Chorley to the south. On a weekday and a Saturday, the Route 111 runs a 15-minute frequency to Preston and Lostock Hall, and to Farington, Leyland and Broadfield, at an hourly frequency the 111 route extends to serve Standish and Wigan. On a Sunday, the 111 runs at a 30-minute frequency.

Table 2-1 – Bus Services from stops on Stanifield Lane

No.	Operator	Route	Frequency (weekday and Saturday)	Frequency (Sunday)	First Last Weekday and Saturday Service	First Last Sunday Service
109	Stagecoach	Preston – Lostock Hall – Leyland – Euxton - Chorley	30 mins	60 mins	06:43 / 23:06	08:45 / 18:48
111	Stagecoach	Preston – Lostock Hall – Farington – Leyland – Seven Stars (Standish - Wigan)	15 mins	30 mins	05:49 / 23:21	09:04 / 22:36

2.5.2. The bus stops on Stanifield Lane consist of a bus stop flag and a printed timetable, as pictured on Figure 2.11

Figure 2.11: Woodcock Estate Bus Stop and Brook House Farm Bus Stop on Stanifield Lane

Rail

2.5.3. Lostock Hall Rail Station is located approximately 700 m to the north of the site and can be accessed via footways along Stanifield Lane and Watkin Lane. Table 2.2 summarises rail services from Lostock Hall which include an hourly service to Preston and an hourly service to Blackburn, Burnley and Colne.

Table 2-2 - Rail Services from Lostock Hall Rail Station

Service	Monday-Saturday Frequency	First / Last Service	Sunday Frequency	First / Last Service
Preston	60 mins	07:11 / 00:01	120 mis	10:21 / 22:25
Blackburn -Accrington – Burnley - Colne	60 mins	07:03 / 23:03	120 mins	08:21 / 22:07
Preston - Blackpool North	3 AM services	06:30, 07:36 and 08:35	-	-

2.5.4. Leyland Rail Station is located approximately 1.6km to the south of the site and can be accessed via footways along Stanifield Lane. Table 2.3 summarises rail services from Leyland which include services to Blackpool, Manchester and Liverpool.

Table 2-3 - Summary of Rail Services from Leyland Rail Station

Service	Monday-Saturday Frequency	First / Last Service	Sunday Frequency	First / Last Service
Liverpool Lime Street	60 mins	07:35 / 22:48	60 mins	08:29 / 22:38
Blackpool North	2 per hour	06:48 / 23:44	30 mins	08:47 / 00:11
Manchester Piccadilly/ Manchester Airport	60 mins	05:18 / 23:50	60 mins	12:25 / 22:24

Local Facilities

2.5.5. Future residents and users of the Development will have access to a range of local facilities provided on-site. The proposed site masterplan includes a range of day-to-day facilities including: a gym, a food store and food outlets, a health centre, creche and leisure centre as well as employment opportunities.

2.5.6. The site is also well located with a range of existing local facilities. Future residents of the site will be able to make use of existing active and sustainable travel provision to access a range of facilities locally. Table 2.4 below outlines day-to-day facilities to be provided onsite or available within walking distance to the future residents of Zone E at the northwest of the Masterplan.

Table 2-4 - Local facilities

Amenity	Location	Distance (Walking)
Food Store	Proposed on-site	On-site
Gym	Proposed on-site	On-site
Creche	Proposed on-site	On-site
Health Centre	Proposed on-site	On-site
Employment	Proposed on-site	On-site
Leisure centre	Proposed on-site	On-site
Sainsburys / Aldi	A6 Lostock Ln / Cuerden Way	25 mins ~
Primary School – Lever House	Bristol Avenue	25 mins ~

High School – Lostock Hall Academy	Todd Lane N	25 mins ~
Post Office	Watkin Ln / Brownedge Rd	25 min ~

2.6 ROAD SAFETY

2.6.1. A detailed assessment of highway accidents on the local links and junctions within the scope of assessment has been undertaken and is included in Appendix B.

2.6.2. Based on the findings of the assessment, it is not considered there are any significant clusters or patterns of accidents local to the site above and beyond those that might reasonably be expected given the nature and scale of the local highway network.

2.6.3. As set out later in this TA, the development proposals will result in an overall decrease in traffic flows in the peak hours, in comparison to the consented Cuerden scheme (07/2017/0211/ORM) .

2.6.4. Accordingly, it is not considered there will be any material safety disbenefit as a result of the Development.

2.6.5. Any off-site highway proposals, and any on-site highway which is proposed for adoption by LCC, will be subject to the Road Safety Audit process in accordance with LCC standards and guidance. This process will be used to inform and guide the design to ensure all possible risks are eliminated at the design stage.

3

PROPOSED DEVELOPMENT

3 PROPOSED DEVELOPMENT

3.1 DEVELOPMENT LAYOUT

3.1.1. The proposals are as outlined in the development description supporting the planning application:

"Application for Outline Planning Permission (with all matters reserved save for access from the public highway and strategic green infrastructure/landscaping) for a mixed-use development including the provision of Employment use (Use Classes B2/B8/E(g)); retail (use Class E(a)); food, drink and drive-through restaurant use (Use Class E(b)/Sui Generis Drive-Through); hotel use (Use Class C1); health, fitness and leisure use (Use Classes E(d)/F(e)/F2(b)); creche/nursery (Class E(f)); car showrooms (Use Class Sui Generis Car Showroom); Residential use (C3) the provision of associated car parking, access, public open space, landscaping and drainage."

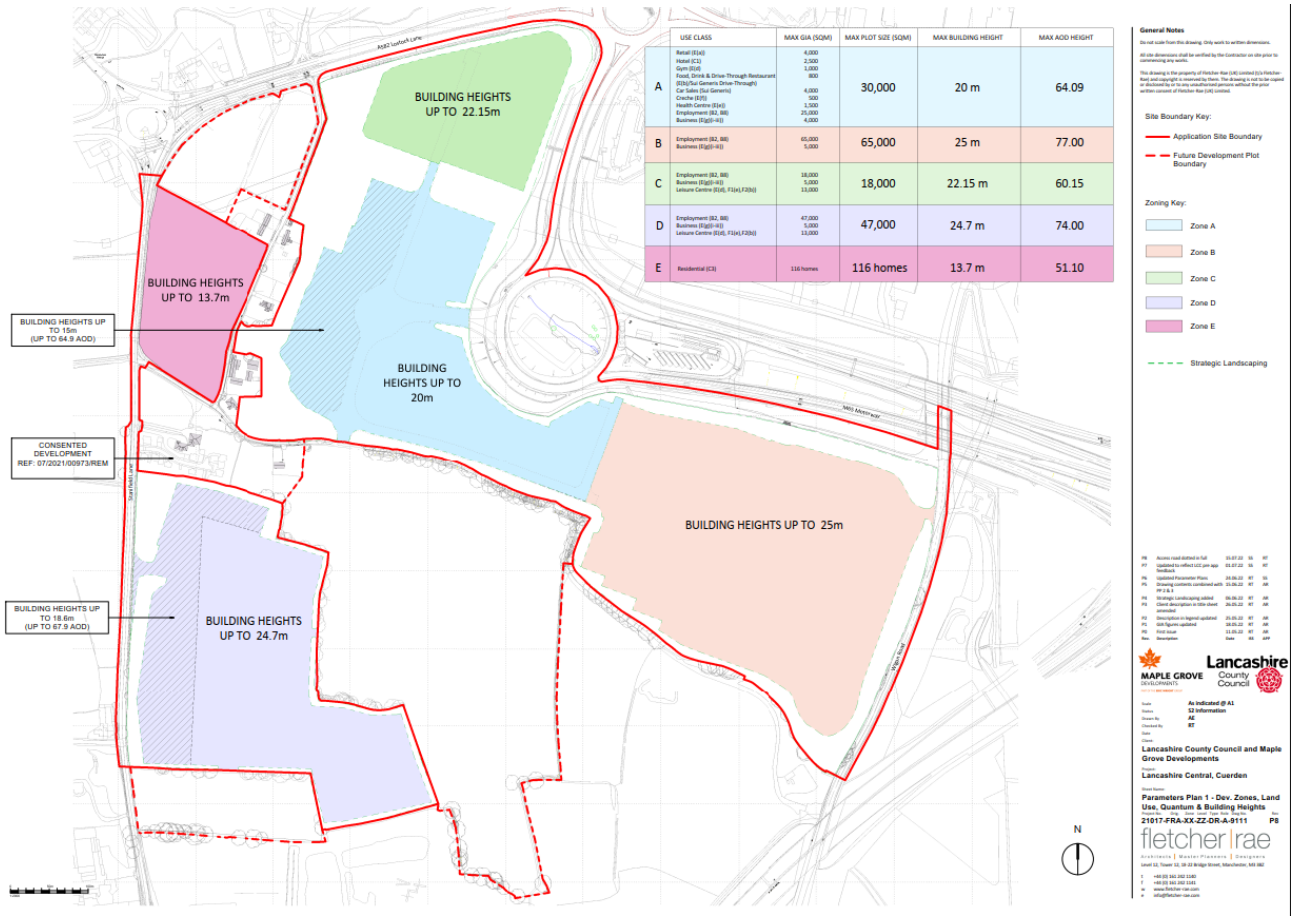
3.1.2. Parameters Plans for the development site have been produced by Fletcher-Rae UK Ltd and are included in Figure 3.1 below and in Appendix C. The development within the application site consists of five zones (A-E) and will consist of a range of land uses.

3.1.3. For each zone, a maximum zone size is identified which provides an upper limit on the amount of development proposed in each zone. The cumulative GIA for the various land uses within each zone will not exceed the upper limit for the given zone. A maximum GIA for each land use is also included on the Parameter plan.

3.1.4. Zones A-E form the application site, however within the wider Cuerden Strategic site three 'Future Phase' development zones are also included. The 'Future Phase' land is the remaining land outside of the application site, but within the boundary of the C4 Site Allocation. The 'Future Phase' land is owned by Brookhouse Group Ltd. and will be subject to separate application, however development of this land was approved within the 2017 planning application which covered the entire Cuerden Strategic Site.

3.1.5. The 'Future Phase' development zones have been included within the traffic assessments included in this TA as they form part of the allocated site and benefit from approval due to their inclusion within the 2017 application.

Figure 3-1 - Parameters Plan



3.1.6. The proposals for Zone A include the following land uses and their proposed maximum GIA:

- Retail units *E(a)* – 4,800 sqm (inc 800sqm drive-thru)
- Hotel *C1* – 2,500 sqm
- Gym *E(d)* – 1,000 sqm
- Car showroom, *Sui Generis* – 4,000 sqm
- Creche *E(f)* - 500 sqm
- Health centre *E(e)* – 1,500 sqm
- Employment *B2/B8/E(g)(i-iii)* – up to 25,000 sqm
- Business/Office *E(g)(i-iii)* – 4,000 sqm

3.1.7. The maximum quantum of proposed development on Zone A is 30,000 sqm. The combination of the proposed GIA for the various land uses will not exceed this maximum.

3.1.8. Zone B comprises:

- Business/Office *E(g)(i-iii)* – 5,000 sqm
- Employment *B2/B8/E(g)(i-iii)* – up to 65,000 sqm

3.1.9. The maximum quantum of development on Zone B is 65,000 sqm. The combination of the proposed GIA for the various land uses will not exceed this maximum.

3.1.10. Zone C comprises:

- Business/Office *E(g)(i-iii)* – 5,000 sqm
- Employment *B2/B8/E(g)(i-iii)* – up to 13,000 sqm
- Leisure centre *E(d), F1(e), F2(b)* - up to 13,000 sqm.

3.1.11. The maximum quantum of development on Zone C is 18,000 sqm. The combination of the proposed GIA for the various land uses will not exceed this maximum.

3.1.12. Zone D comprises:

- Business/Office *E(g)(i-iii)* – 5,000 sqm
- Employment *B2/B8/E(g)(i-iii)* – up to 47,000 sqm

3.1.13. The maximum quantum of development on Zone D is 47,000 sqm. The combination of the proposed GIA for the various land uses will not exceed this maximum.

3.1.14. Zone E includes the proposed residential development parcel which includes provision for 116 private dwellings (C3)

3.1.15. Future Phase land includes provision for up to 33,000 of B2/B8/E(g)(i-iii) employment land use, and an additional 94 residential extra care units (C2).

3.1.16. The maximum permitted floorspace for Zones A-D will be 160,000 sqm. A total overall quantum of permitted floorspace including Zones A-E and the Future Phase land will be 193,000 sqm GIA plus a total of 210 residential unts and extra care units.

3.1.17. The consented scheme at the site proposed a mixed-use development of 192,800 sqm plus 210 residential units. The Max GIA (sqm) from Table 1 of the Mott MacDonald TA Addendum for the various land uses is summarised in Table 3.1 and compared against the current proposals for the development site.

Table 3-1 - Consented and Proposed Masterplan Land Uses

Land Use	Consented Scheme (sqm)	Proposed Scheme (including Future Phase) (sqm)	Difference
Retail (Food)	1,800	4,800	+3,000
Hotel	8,000	2,500	-5,500
Gym	1,000	1,000	0
Car Sales	7,200	4,000	-3,200
Creche	0	500	+500
Health Centre	0	1,500	+1,500

Pub/Restaurant	800	0	-800
Employment (B2/B8)	60,000	**146,700 (inc. 33,000 Future Phase)** *(Maximum on Masterplan 188,000 (inc. 33,000 Future Phase)**	+86,700
Business (Office)	46,000	19,000	-27,000
Leisure Centre	0	13,000	+13,000
Retail (Non-food)	30,000	0	-30,000
IKEA (& Café)	36,800	0	-36,800
Residential	210 units	210 units	0
TOTAL	*191,600 (Total)* **192,800 (Max)**	**193,000 (Max)**	

** If the other land uses were built out to their maximum floorspaces, there would be allowance for 113,700 sqm of Employment (B2/B8/E(g)(i-iii)) use across Zones A-D, plus 33,000 sqm within the Future Phase. However, if the other land uses were not built out to the maximum floorspaces, it is suggested a maximum of 155,000 sqm could be allocated to Employment (B2/B8/E(g)(i-iii)) uses within Zones A-D, plus 33,000 sqm within the Future Phase.*

3.1.18. The overall proposed maximum GIA of the consented and proposed schemes is similar, with the proposed scheme and Future Phase land combined proposing 200 sqm more development than the consented scheme over the entire site.

3.1.19. The consented scheme included an IKEA and non-food retail, which are no longer proposed for the site. The current proposals include a larger proportion of Employment use, as well as the addition of a Health centre, Leisure centre and Creche on-site.

3.1.20. The proposed residential element remains at 210 units as per the consented scheme.

3.2 PARKING PROVISION

3.2.1. Parking will be provided in accordance with SRBC Parking Standards, and will include:

- Electric Vehicle Charging
- Accessible Spaces
- Customer Spaces
- Staff Spaces

3.2.2. Cycle parking will also be provided in accordance with SRBC Parking Standards.

3.2.3. South Ribble Borough Council Car Parking Standards are provided within Appendix 4 of the South Ribble Local Plan (July 2015) and highlighted by Policy F1. Table 3.2 summarises the parking standards are relevant to the proposed development. Policy F1 of the Local Plan states that '*the parking standards should be seen as a guide for developers and any variation from these standards should be supported by local evidence…where appropriate, some flexibility will be factored into the standards in relation to the specific local circumstances.*

Table 3-2 – Parking Standards

Land Use	SRBC Standard	Proposed GIA	SRBC Standard for proposed quantum
Retail (Food)	1 per 14 m^2	4,800	343
Hotel	1 per bedroom including staff provision	2,500	Dependent on number of bedrooms and staff
Gym	1 per 22 m^2	1,000	45
Car Sales	1 per 50 m^2 internal showroom	4,000	80
Creche	1 per member of staff + 1 drop off space per 10	500	Dependent on number of places and staff
Health Centre	1 per staff plus 4 per consulting room	1,500	Dependent on number of staff
Industrial (B2)	1 per 45 m^2	45,480	1,011
Industrial (B8)	1 per 100 m^2	68,220	682
Business (Office)	1 per 30 m^2	19,000	633
Leisure Centre	1 per 22 m^2	13,000	591
Residential	1/2/3 spaces for 1-2/3/4+ bedroom	210	232*

**Assumes average of 2 spaces per residential property*

3.3 PROPOSED SITE ACCESS

3.3.1. The site is proposed to include four vehicle access points:

- **M65 terminus** – access via a third arm of the existing terminus roundabout, through its western embankment. The roundabout is proposed to be signalised as per drawing 84465-WSP-XX-DR-004 included in Appendix D.

- **A49 Wigan Road** – a four-arm signalised junction will be provided off A49 Wigan Road as per drawing 84465-WSP-XX-DR-001 included in Appendix D. The site access will form the western arm of the junction, and the existing access to Cuerden Valley Park Wigan Road car park will form the eastern arm. Pedestrian crossing facilities are provided on the southern and eastern arms to link into existing footway and cycleway provision along Wigan Road.

- **Stanifield Lane southern access** – a three-arm signalised junction will be provided off Stanifield Lane providing access to Zone D and the Future Phase zones, as well as linking to the wider internal road network within the site. The proposed junction layout is as per drawing 84465-WSP-XX-DR-002 included in Appendix D. Pedestrian crossing facilities are provided on the eastern arm, connecting to existing pedestrian provision along Stanifield Lane.

- **Stanifield Lane Residential access**– a four-arm staggered priority junction will be provided off Stanifield Lane to provide access to the housing development plot only. Drawing 84465-WSP-XX-DR-003 in Appendix D shows the proposed layout of the junction, assuming the Farington Cricket Amenity (which we understand will shortly be submitted for planning) is approved and built out. A ghost island is provided for vehicles approaching the site from the south. If the Farington proposals were not build out, the junction layout would be proposed as a three-arm priority junction.

3.4 PROPOSED INTERNAL HIGHWAY LAYOUT

3.4.1. Accessing the site from the M65 terminus, vehicles entering the site will approach an internal roundabout which provides access to the Zone C and the northern units of Zone A via a northern arm, and to the remainder of the site via a southern arm.

3.4.2. The southern arm leads on to a second internal roundabout, which is proposed as a 4-arm priority roundabout, with access to Zone A units on the western arm, access to Future Phase zone and Zone D development land to the south, and remaining Zone A units, and Zone B units to the east.

3.4.3. Upon completion of full build out a route between the M65 terminus and Stanifield Lane will be available using the internal highway layout.

3.4.4. The internal layout of the site will include road widths of c.7m, as shown on the internal highway layout drawings included in Appendix D showing indicative cross sections with carriageway widths of 7.3m with footways on either side.

3.5 PEDESTRIAN AND CYCLE PROVISION

3.5.1. The internal layout of the site will provide suitable pedestrian and cycle routes between the various proposed uses and will enable active travel users to travel across and within the site safely and

conveniently. Internal footways will provide access to each of the individual development plots and units, as well as connecting between the development plots.

3.5.2. The highways layout drawings included in Appendix D show indicative cross sections with a 3m shared footway/cycle way proposed adjacent to one side of the internal carriageway, and a 2m footway provided adjacent to the other side of the carriageway.

3.5.3. Green infrastructure is provided within the proposals providing residents and visitors access to good quality open spaces, and existing public Rights of Way located across the site will benefit for rerouting to provide connectivity to green spaces within the site, as well as connecting coherently to the wider footpaths and PRoW networks.

3.6 PUBLIC TRANSPORT ROUTING

3.6.1. Public transport services are available in close proximity to the site, as highlighted in Chapter 2. At this stage it is not proposed to divert bus services via the site itself, but the flexibility to do this in the future is maintained through highway design which will allow the passage of public buses if required.

3.7 SERVICING AND REFUSE STRATEGY

3.7.1. Servicing requirements for the individual units will vary according to the exact uses, but as a general principle the site access roads are suitable for large articulated vehicles (16.5m length) as shown in the tracking drawings in Appendix D.

3.7.2. The industrial and commercial units have identified service yards as shown on the site layout, including turning circles to accommodate articulated vehicles. It is envisaged refuse collection would also be undertaken using these areas as required.

3.7.3. For smaller units, particularly those in Zone A such as the health centre and gym/creche, servicing with a smaller vehicle such as a 10m rigid vehicle is likely to be sufficient. Such a vehicle could therefore utilise routes within the car parking areas as necessary. Indicative loading bays are shown for some of the units, however details of the servicing for each unit could be submitted as part of a detailed planning application for each individual unit as and when it comes forward.

3.7.4. Relevant tracking drawings are included in Appendix D.

4

POLICY REVIEW

4 POLICY REVIEW

4.1 INTRODUCTION

4.1.1. The following section of the report sets out the key national, regional and local traffic and transport polices that are relevant to the proposed development. Later sections of the report demonstrate how the proposals accord with these policies.

4.2 NATIONAL POLICY

National Planning Policy Framework (NPPF), July 2021

4.2.1. The latest version of the National Planning Policy Framework (NPPF) was published in July 2021. The Framework identifies that the purpose of the planning system is to contribute towards sustainable development. It maintains that plans and decisions should apply a presumption in favour of sustainable development.

4.2.2. Paragraph 110 of the NPPF 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;

(c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code 46 ; and

(d) 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.

4.2.3. Paragraph 111 of the NPPF 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.'*

4.2.4. Furthermore, paragraph 113 of the NPPF states:

'All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed.'

4.2.5. This TA addresses the above policy guidance by outlining opportunities for sustainable travel to and from the site and by detailing how sustainable and active travel options will be promoted through the Framework Travel Plan.

4.2.6. Chapter 3 outlines the site access proposals, which have been designed to provide safe and suitable access to all users.

4.2.7. Chapter 8 assesses the impact of the proposed development on the local highway network and concludes that the residual cumulative impacts of the development are not severe.

Planning Policy Guidance

4.2.8. The Government's Planning Practice Guidance (PPG) supplements the NPPF. The PPG clarifies the over-arching principles of Travel Plans, Transport Assessments and Transport Statements. The guidance on Transport Assessments and Statements re-iterates the circumstances in which either document would usually be required and outlines the process for determining the scope of the assessment. The PPG has been considered in the production of the TA.

National Highways policy (DfT Circular 02/2013)

4.2.9. The Department for Transport Circular 02/2013, published in September 2013, outlines policy relating to the strategic road network and the delivery of sustainable development.

4.2.10. Paragraph 9 states that 'Development proposals are likely to be acceptable if they can be accommodated within the existing capacity of a section (link or junction) of the strategic road network, or they do not increase demand for use of a section that is already operating at over-capacity levels, taking account of any travel plan, traffic management and/or capacity enhancement measures that may be agreed.'

4.2.11. Paragraph 26 states that 'The Highways Agency expects the promoters of development to put forward initiatives that manage down the traffic impact of proposals to support the promotion of sustainable transport and the development of accessible sites.'

4.2.12. The Framework Travel Plan will help to ensure that the forecast trip generation of the site can be accommodated within the existing capacity of the SRN. The site is located in a sustainable location, accessible by local bus and rail services as well via cycling and walking.

4.3 REGIONAL POLICY

Lancashire County Council Local Transport Plan (2011-2021)

4.3.1. The Lancashire County Council Local Transport Plan covers the period 2011 to 2021 and set out the following transport goals to increase prosperity and well-being for all communities in Lancashire:

- *'To help to secure a strong economic future by making transport and travel into and between our major economic centres more effective and efficient and by improving links to neighbouring major economic areas and beyond'.*
- *'To provide all sections of the community with safe and convenient access to the services, jobs, health, leisure and educational opportunities that they need'.*
- *'To improve the accessibility, availability and affordability of transport as a contribution to the development of strong and cohesive communities'.*
- *'To create more attractive neighbourhoods by reducing the impact of transport on our quality of life and by improving our public realm'.*
- *'To reduce the carbon impact of Lancashire's transport requirements, whilst delivering sustainable value for money transport options to those who need them'.*
- *'To make walking and cycling more safe, convenient and attractive, particularly in the more disadvantaged areas of Lancashire, bringing improvements in the health of Lancashire's residents.'*

- *In all that we do, to provide value for money by prioritising the maintenance and improvement of Lancashire's existing transport infrastructure where it can help to deliver our transport goals.'*

4.3.2. The Local Transport Plan also sets out seven transport priorities developed to deliver improvements and drive targeted investment in transport. These priorities include:

- *"Improving access into areas of economic growth and regeneration;*
- *Providing better access to education and employment;*
- *Improving people's quality of life and wellbeing;*
- *Improving safety of our streets for out most vulnerable residents;*
- *Providing safe, reliable, convenient and affordable transport alternatives to the car;*
- *Maintaining our assets; and*
- *Reducing carbon emissions and its effects"*

4.3.3. The development proposals will provide a local leisure facility, accessible via existing walking and cycling infrastructure, and via sustainable transport modes. The proposed development can be delivered in accordance with the aims and objectives outlined in the Local Transport Plan.

Central Lancashire Core Strategy (2012)

4.3.4. The Central Lancashire Core Strategy Local Development Framework was adopted in 2012 and sets out the spatial planning proposals for Preston, South Ribble and Chorley.

The core strategy identifies the following Strategic Objectives relevant to the application site:

SO 3: To reduce the need to travel, manage car use, promote sustainable modes of travel and improve the road network to the north and south of Preston.

SO 19: To improve access to health care, sport and recreation, open green spaces, culture, entertainment, and community facilities and services

4.3.5. The proposals will promote sustainable modes to travel to and from the site and will bring a new sport and recreation facility that will welcome and encourage community uses.

Policy 3 of the Core Strategy outlines a series of measure to approach planning for travel:

(a) Reducing the need to travel

(b) Improving Pedestrian facilities

(c) Improving opportunities for cycling

(d) Improving public transport

(e) *Enabling travellers to change their mode of travel on trips*

(f) *Encouraging car sharing*

(g) *Managing car use*

(h) *Improving the road network*

(i) *Enabling the use of alternative fuels for transport purposes*

Central Lancashire Highways and Transport Masterplan (2013)

4.3.6. The Central Lancashire Highways and Transport Masterplan adopted in 2013. The masterplan includes reference to improvements of the A582 South Ribble Western Distributor, to increase capacity on the A582 by upgrading it to dual carriageway along its full length between Cuerden and Preston city centre.

4.3.7. As part of the proposals a number of improvements have already been delivered including improvements of Stanifield Roundabout. The existing roundabout was widened to create extra lanes and install traffic lights to increase capacity and traffic flows through the junction. Cycle and pedestrian facilities have also improved with on and off-carriageway cycle lanes, shared use cycle/footways and controlled crossings.

4.3.8. A planning application for the dualling of A582 was submitted in February 2020 (Planning Ref: LCC/2020/0014) and is yet to be determined. The dualling of the A582 is considered as an 'expected development' in the remainder of this TA.

4.4 LOCAL POLICY

South Ribble Borough Council – Local Plan (2015)

4.4.1. The South Ribble Local Plan was adopted in July 2015 and sets out the vision for development within the Borough. Policy F1 outlines parking standards for development proposals within South Ribble.

4.4.2. The development site has been identified as an employment site within the local plan. Policy C4 relates to the Cuerden Strategic Employment Site.

4.4.3. 'Planning permission will be granted for development of the Cuerden Strategic Site subject to the submission of:

- *an agreed Masterplan for the comprehensive development of the site, to provide a strategic employment site, to include employment, industrial and Green Infrastructure uses;*
- *a phasing and infrastructure delivery schedule;*
- *an agreed programme of implementation in accordance with the Masterplan and agreed design code.*

4.4.4. Alternative uses, such as retail, leisure and housing may be appropriate where it can be demonstrated that they help deliver employment uses on this strategic site. The scale of any alternative enabling development will be limited to that which is clearly demonstrated to be necessary to fund essential infrastructure and which will not prejudice the delivery and maintenance of the primary employment function of the site. Any proposed main town centre uses must satisfy the sequential and impact tests set out in the NPPF, relevant policies of the Core Strategy and this Local Plan'

4.4.5. It is clear from Policy C4, that development of the site is supported within the Local plan, and that infrastructure plays a critical part in the development. This TA outlines the proposed Masterplan for the site which includes employment opportunities as well as supporting land uses.

4.5 SUMMARY

4.5.1. In summary, the proposed development is located in a sustainable and accessible location and accords with the principles of national, regional and local planning policy.

5

TRIP DISTRIBUTION AND GENERATION

5 TRIP DISTRIBUTION AND GENERATION

5.1 TRIP DISTRIBUTION

5.1.1. As outlined in the TA scoping, the proposed distribution of development trips has been taken from the consented distribution presented in the Mott MacDonald TA Addendum – Appendix B. This included:

- Distribution for Employment and Retail Land Uses
- Distribution for Residential Land Uses
- Distribution for Logistics and Manufacturing

5.1.2. A proposed distribution from LCC Highways Officer for employment and retail land use types is included in Appendix E of this TA for reference. As stated in Section 3.4 of the Mott MacDonald TA Addendum, this included amendments to the original distribution presented in the Mott MacDonald TA which was based on Journey to work and information, and retail impact assessment catchments. The amended distribution was refined using observations of the local highway network and conditions. It also takes into account likely movements associated with the proposed access to the site off Stanifield Lane.

5.1.3. For the residential land use, the Mott MacDonald TA Addendum included a distribution based on Journey to Work census data. This residential distribution has been applied to the proposed residential development quantum proposed within the revised masterplan. Appendix E includes the proposed distribution of residential trips associated with the site. This has been applied to the residential dwellings and extra care residential units proposed off Stanifield Lane.

5.1.4. The Mott MacDonald TA included a distribution specific to Logistics and Manufacturing. The initial distribution was revised to shift additional traffic on M6/M54 south and from Stanifield Lane onto the M6 to reflect that these trips are more likely to be routed along the Strategic Road Network. Appendix E includes the proposed distribution of residential trips associated with the site. This distribution has been applied to trips associated with B8 Industrial Warehousing in the masterplan, as well as to the Future Phase land adjacent to Zone D.

5.2 TRIP GENERATION

5.2.1. As outlined in Chapter 3, there are a variety of land uses included within the Masterplan for the site. Trip rates for the proposed uses have been obtained from the TRICS database (v7.8.2 / 7.8.4). The TRICS output reports for the various uses are provided in Appendix F.

5.2.2. As per the Mott MacDonald TA Addendum, trip rates for Car Show Rooms within the Lancashire region, initially provided by LCC Highways, have been used to provide trip rates more specific to the location and access to the strategic road network at the site.

5.2.3. The proposed GFA for Employment land use *B2/B8/E(g)(i-iii)* has been split 60% warehousing units and 40% industrial units.

5.2.4. The Parameters Plan in Appendix C shows maximum floorspaces for various land uses, but also a maximum floorspace for each of the development zones. The total floor space will be comprised of a combination of land uses up to the maximum floor space for each zone, and the scenario which

results in the maximum trip generation to/from the site has been used in the trip generation and proposed traffic flows for the Do-Something scenario.

5.2.5. Tables 5.1 to 5.6 below summarise the trip rates and trip generation for the morning, evening and weekend peak periods for Zones A to D, the residential development and the future phase zone.

5.2.6. As per the consented application, in the PM peak, a 10% discount has been applied to employment trips to account for linked trips to other land uses on the site. A 30% discount has been applied to drive-thru trip generation to account for linked trip to other land uses for all three peak periods.

Table 5-1 - Development Zone A Trip Rates and Trip Generation – Total Vehicles

			AM (07:30-08:30)		PM (16:30-17:30)		Weekend (13:00-14:00)	
Land Use	**GFA (m^2)**	**Dir.**	**Trip Rates**	**Trip Gen**	**Trip Rates**	**Trip Gen**	**Trip Rates**	**Trip Gen**
Industrial Warehousing	*7,020*	*Arrival*	*0.176*	***12***	*0.052*	***4***	*0.000*	*0*
		Departure	*0.070*	***5***	*0.149*	***10***	*0.000*	*0*
		Two-way	*0.246*	***17***	*0.201*	***14***	*0.000*	*0*
Industrial Unit	*4,680*	*Arrival*	*0.328*	***15***	*0.045*	***2***	*0.000*	*0*
		Departure	*0.051*	***2***	*0.272*	***13***	*0.000*	*0*
		Two-way	*0.379*	***18***	*0.317*	***15***	*0.000*	*0*
Offices	*4,000*	*Arrival*	*1.177*	***47***	*0.124*	***5***	*0.000*	*0*
		Departure	*0.128*	***5***	*0.941*	***38***	*0.000*	*0*
		Two-way	*1.305*	***52***	*1.065*	***43***	*0.000*	*0*
Employment (10% PM Discount)		Arrival				**10**		
		Departure	-	-	-	**55**	-	-
		Two-way				**64**		
Car Supermarket	4,000	Arrival	0.486	**19**	0.236	**9**	0.319	**13**
		Departure	0.236	**9**	0.306	**12**	0.375	**15**
		Two-way	0.736	**29**	0.542	**22**	0.694	**28**
Health Centre	1,500	Arrival	2.463	**37**	1.731	**26**	0.000	**0**
		Departure	1.141	**17**	2.519	**38**	0.000	**0**
		Two-way	3.604	**54**	4.249	**64**	0.000	**0**

Gym	1,000	Arrival Departure Two-way	0.619 0.523 1.142	**6** **5** **11**	1.466 1.161 2.626	**15** **12** **26**	0.298 0.623 0.921	**3** **6** **9**
Creche	500	Arrival Departure Two-way	2.991 1.990 4.981	**15** **10** **25**	2.078 2.515 4.593	**10** **13** **23**	0.000 0.000 0.000	**0** **0** **0**
Hotel	2,500	Arrival Departure Two-way	0.353 0.389 0.742	**9** **10** **19**	0.302 0.279 0.580	**8** **7** **15**	0.151 0.112 0.263	**4** **3** **7**
Food Store	4000	Arrival Departure Two-way	1.442 0.996 2.438	**58** **40** **98**	3.980 3.990 7.969	**159** **160** **319**	6.213 6.316 12.529	**249** **253** **501**
Drive Thru	*800*	*Arrival* *Departure* *Two-way*	*2.381* *2.245* *4.626*	*19* *18* *37*	*8.961* *8.812* *17.773*	*72* *70* *142*	*28.449* *30.934* *59.383*	*228* *247* *475*
Drive Thru (30% Discount)		Arrival Departure Two-way	- - -	**13** **13** **26**	- - -	**50** **49** **100**	- - -	**159** **173** **333**
Zone A Total	30,000	Arrival Departure Two-way	- - -	**232** **116** **349**	- - -	**287** **345** **632**	- - -	**427** **450** **877**

Table 5-2 - Development Zone B Trip Rates and Trip Generation – Total Vehicles

			AM (07:30-08:30)		PM (16:30-17:30)		Weekend (13:00-14:00)	
Land Use	**GFA (m^2)**	**Dir.**	**Trip Rates**	**Trip Gen**	**Trip Rates**	**Trip Gen**	**Trip Rates**	**Trip Gen**
Industrial Warehousing	36,000	Arrival	0.176	**63**	0.052	**19**	0.000	0
		Departure	0.070	**25**	0.149	**54**	0.000	0
		Two-way	0.246	**89**	0.201	**72**	0.000	0
Industrial Unit	*24,000*	*Arrival*	*0.328*	***79***	*0.045*	***11***	*0.000*	*0*
		Departure	*0.051*	***12***	*0.272*	***65***	*0.000*	*0*
		Two-way	*0.379*	***91***	*0.317*	***76***	*0.000*	*0*
Offices	5,000	Arrival	*1.177*	***59***	*0.124*	*6*	*0.000*	*0*
		Departure	*0.128*	***6***	*0.941*	*47*	*0.000*	*0*
		Two-way	*1.305*	***65***	*1.065*	*53*	*0.000*	*0*
Employment (10% PM Discount)		Arrival	-	-	-	32	-	-
		Departure				149		
		Two-way				182		
Zone B Total	65,000	Arrival	-	**201**	-	**32**	-	0
		Departure		**44**		**149**		0
		Two-way		**245**		**182**		0

Table 5-3 - Development Zone C Trip Rates and Trip Generation – Total Vehicles

			AM (07:30-08:30)		PM (16:30-17:30)		Weekend (13:00-14:00)	
Land Use	**GFA (m^2)**	**Dir.**	**Trip Rates**	**Trip Gen**	**Trip Rates**	**Trip Gen**	**Trip Rates**	**Trip Gen**
Offices	5,000	Arrival	*1.177*	***59***	*0.124*	*6*	*0.000*	*0*
		Departure	*0.128*	***6***	*0.941*	*47*	*0.000*	*0*

		Two-way	*1.305*	***65***	*1.065*	*53*	*0.000*	*0*
Employment (10% PM Discount)		Arrival Departure Two-way	-	-	-	**6** **42** **48**	-	-
Leisure Centre	13,000	Arrival Departure Two-way	0.388 0.237 0.624	**50** **21** **81**	0.826 0.710 1.536	**107** **92** **200**	1.467 1.187 2.654	**191** **154** **345**
Zone C Total	18,000	Arrival Departure Two-way	-	**109** **37** **146**	-	**113** **135** **248**	-	**191** **154** **345**

Table 5-4 - Development Zone D Trip Rates and Trip Generation – Total Vehicles

			AM (07:30-08:30)		PM (16:30-17:30)		Weekend (13:00-14:00)	
Land Use	**GFA (m^2)**	**Dir.**	**Trip Rates**	**Trip Gen**	**Trip Rates**	**Trip Gen**	**Trip Rates**	**Trip Gen**
Industrial Warehousing	25,200	Arrival Departure Two-way	0.176 0.070 0.246	**44** **18** **62**	0.052 0.149 0.201	**13** **38** **51**	0.000 0.000 0.000	0 0 0
Industrial Unit	16,800	Arrival Departure Two-way	0.328 0.051 0.379	**55** ***9*** ***64***	0.045 0.272 0.317	8 46 53	0.000 0.000 0.000	0 0 0
Offices	5000	Arrival Departure Two-way	*1.177* *0.128* *1.305*	***59*** ***6*** ***65***	*0.124* *0.941* *1.065*	*6* *47* *53*	*0.000* *0.000* *0.000*	*0* *0* *0*
Industrial Unit and Office (10% PM Discount)		Arrival Departure Two-way	-	-	-	**24** **117** **141**	-	-

Zone D Total	47,000	Arrival Departure Two-way	-	**158** **33** **191**	-	**24** **117** **141**	-	0 0 0

Table 5-5 - Housing Development Trip Rates and Trip Generation – Total Vehicles

			AM (07:30-08:30)		PM (16:30-17:30)		Weekend (13:00-14:00)	
Land Use	**No. of Dwellings**	**Dir.**	**Trip Rates**	**Trip Gen**	**Trip Rates**	**Trip Gen**	**Trip Rates**	**Trip Gen**
Residential	Up to 116 units	Arrival Departure Two-way	0.130 0.370 0.510	**15** **43** **59**	0.310 0.180 0.500	**36** **21** **58**	0.200 0.160 0.360	**23** **19** **42**

Table 5-6 - Future Phases Development Parcels Trip Rates and Trip Generation – Total Vehicles

			AM (07:30-08:30)		PM (16:30-17:30)		Weekend (13:00-14:00)	
Land Use	**Development Quantum**	**Dir.**	**Trip Rates**	**Trip Gen**	**Trip Rates**	**Trip Gen**	**Trip Rates**	**Trip Gen**
Residential (Extra Care)	Up to 94 units	Arrival Departure Two-way	As per consented	6 18 24	As per consented	15 8 23	As per consented	9 7 17
Southern Employment Land (exc. Zone D)	33,000	Arrival Departure Two-way	As per consented	219 80 298	As per consented	62 166 229	As per consented	54 31 86

Comparison to consented application

5.2.7. A comparison between the Proposed Development and the previously consented application (SRBC Ref: 07/2017/0211/ORM) has been made to assess whether the revised proposals would result in any additional and potentially adverse impacts. Given the difference in the geographic extent of the

two application sites (the previous scheme covering a larger area of land), a comparison has been made between the 2017 application, and the 2022 application and the Future Phase of Development (land outside of the Application Site but forming part of the Policy C4 Site Allocation).

5.2.8. The trip generation for the consented development is reported in Table 1 of the TA Addendum to be 1317 two-ways trips in the AM peak, 1,929 in the PM peak and 2,237 in the weekend peak. However, having analysed the trip generation presented for the individual land uses and the trip generation and development flows presented within the traffic flow diagram and Trip generation table in the TA Addendum Appendices, a two-way trip generation for the consented development of 1,491 vehicles in the AM peak, 1,998 vehicles in the PM peak and 2,269 vehicles in the weekend peak is reported. The trip generation as presented in the traffic flow diagrams and used within the junction modelling previously has been used for a source of comparison, rather than the erroneous figures presented in Table 1 of the TA Addendum. However, even if using the figures presented in Table 1 of the TA Addendum, the proposed development is still lower than the consented flows in all three peak periods.

5.2.9. As shown in Table 5.7, the trip generation associated with the revised planning application (when considered in conjunction with the Future Phase zones) for the site is notably lower than the previously accepted trip generation at the site in all three peak periods. Two-way vehicle trip generation in the morning peak is c.179 vehicles fewer with the new proposals compared to the consented trip generation, in the weekday evening peak there are c.486 fewer two-way vehicle trips and in the weekend peak there are c.902 fewer trips than consented.

5.2.10. The weekend peak trip generation is reduced by around 40% compared to the consented, largely driven by the reduction in retail proposed at the site. There is a 25% reduction in trips in the evening peak, and just over 10% reduction in proposed trips associated the site during the morning peak.

5.2.11. As the proposed trip generation is much lower than the consented trip generation the impact on the local highway network will be reduced. As the previous application was accepted, the reduced level of trip generation and its associated impacts on the highway network cannot be considered unacceptable.

Table 5-7 - Total Consented and Proposed Development Trip Generation – Total Vehicles

		Weekday AM (07:30-08:30)			Weekday PM (16:30-17:30)			Weekend Peak (13:00-14:00)		
		Arrival	**Dep.**	**Total**	**Arrival**	**Dep.**	**Total**	**Arrival**	**Dep.**	**Total**
Consented Development	192,800 sqm & 210 resi.	1,094	397	1,491	731	1,267	1,998	1,164	1,104	2,269
Total Proposed + Future Phases Development	193,000 sqm & 210 residential	941	371	1,312	569	942	1,512	705	661	1,367

Net Trip Generation		**-153**	**-26**	**-179**	**-162**	**-325**	**-486**	**-459**	**-443**	**-902**

5.2.12. The total vehicle trip generation for the proposed development for weekday and weekend 24-hour periods are provided in Table 5.8 below, calculated from TRICS outputs. The site wide HGV trip generation has also been provided in Table 5.9. The 24-hour total vehicle and HGV trip generation for the consented site and Future Phases have been calculated based on the information provided in the Mott MacDonald TA.

Table 5-8 - 24-hour trip generation - Total Vehicles

	Weekday 24 hours			Weekend 24 hours		
	Arrival	**Dep.**	**Total**	**Arrival**	**Dep.**	**Total**
Consented Development	12,039	11,854	23,890	8,673	8,776	17,451
Total Proposed Development (+ Future Phases)	8,268	8,086	16,355	6,985	6,921	13,905
Net Trip Generation	**-3,771**	**-3,768**	**-7,535**	**-1,688**	**-1,855**	**-3,546**

Table 5-9 - 24-hour HGV trip generation

	Weekday 24 hours			Weekend 24 hours		
	Arrival	**Dep.**	**Total**	**Arrival**	**Dep.**	**Total**
Consented Development	305	363	668	43	44	87
Total Proposed Development (+ Future Phases)	542	667	1210	12	12	23
Net Trip Generation	**238**	**304**	**542**	**-32**	**-32**	**-64**

5.2.13. Table 5.8 shows that the 24-hour total vehicle trip generation of the proposed development is significantly lower than the trip generation for the consented development, with the proposed

development trip generation c.68% of the consented level on weekdays and c.80% of the consented level on weekends. Table 5.9 shows that the proposals have a higher level of HGV trip generation than the consented developments on weekdays, but fewer HGVs on a weekend day.

5.3 BASELINE TRAFFIC DATA

5.3.1. As agreed with LCC during TA scoping, pre-COVID traffic data has been used to establish the baseline traffic flows for the traffic capacity assessments.

5.3.2. Following a review of recent applications in the local area and their corresponding Transport Assessments, the traffic flows from the previous planning application for the Cuerden Strategic mixed-use site (South Ribble Planning Reference 07/2017/0211/ORM) were identified as suitable for use within our traffic assessment.

5.3.3. The Mott MacDonald TA includes manually classified turning count data for the local highway network. The traffic surveys were undertaken on Wednesday 15th June, Saturday 25th June and Sunday 26th June 2016, and therefore cover both weekday and weekend conditions.

5.3.4. The traffic flows identified weekday network peaks at 07:30-08:30 in the morning and 16:30-17:30 in the evening. A Saturday peak hour was identified as 13:00-14:00.

5.3.5. As the Saturday peak hour development flows have reduced most significantly as a result of the revised masterplan, the focus of the traffic flow and capacity assessments within this TA is for the weekday peak periods only.

5.3.6. To account for a degree of background traffic growth, TEMPro growth rates have been applied to the 2016 traffic surveys to provide 2032 opening year and 2037 future year traffic flows. Committed and expected developments were also considered and further details are included below.

5.4 COMMITTED DEVELOPMENTS

5.4.1. Committed developments, those in the local area with planning consent, were considered in the development of future year traffic flows. Committed development flows have been taken from traffic flow diagrams available within the TA and supporting planning documents of recent planning applications; Cuerden TA Addendum and Land west of Lancashire Business Park. The committed development sites are outlined in Table 5.10 below. The Cuerden TA Addendum provides an assumed level of build out at the committed development sites for the years 2016, 2019 and 2024. For the 2032 and 2037 future years, full build out of these committed development sites is assumed to provide a robust representation of committed developments in the local area.

Table 5-10 – Committed Developments

Site	Development Proposals

Leyland Test Track (07/2017/3361/ORM)[1]	950 dwellings, employment use
Land west of Lancashire Business Park (07/2020/00781/OUT)	Up to 612,500 sqft of B2 and B8
Former New Mill Site Land off Wesley St, Bamber Bridge (07/2012/0728/OUT)	200 dwellings
Land Formerly Gas Works, Leyland Rd, Lostock Hall (07/2013/0008/ORM)	281 dwellings
Vernon Carus, Penwortham (07/2014/0190/ORM)	385 dwellings
Land to the rear of 2 Leyland Lane 454 Croston Road (07/2012/0627/ORM)	175 dwellings
Land off Croston Road (07/2014/0184/ORM)	400 dwellings
North of Altcar Lane (07/2016/0310/OUT)	200 dwellings
Land Near Shaw Road Brook Rd, Altcar Lane (07/2016/0591/OUT)	400 dwellings
Land south of Cuerden Farm and Woodcocks Farm (10/00414/OUTMAJ)	300 dwellings
Land north of Lancaster Lane (12/00941/OUTMAJ)	160 dwellings
Land Adjoining Cuerden Residential Park (12/00872/FULMAJ)	52 dwellings

[1] [1] The Leyland Test Track (07/2017/3361/ORM) application covers the wider Test Track site and was approved in 2017. A further application was recently approved in 2022 for the revision of a small section within the norther east of the wider Test Track site (07/2021/0034/FUL). The TA for this revised application forecasts a net increase of 18 two-way vehicles in the AM peak and 77 two-way vehicles in the PM peak at the Test Track site. Once distributed across the local highway network, the net increase in flows at the A582/Stanifield Lane junction are less than 10 two-way trips in the AM peak and less than 30 two-way trips in the PM peak. For the purpose of this TA the committed development flows from the 07/2017/3361/ORM application have been used. In July 2022, a reserved matter application for Phase 3-5 (07/2022/00106/REM) was approved, with a reduction in the number of proposed residential units by 10 units. This change would have minimal impact on overall proposed trip generation from this site.

5.4.2. The weekday AM and PM peak hour committed development flows are included in the Traffic Flow Diagrams provided in Appendix G, assuming all twelve sites are fully built out and their traffic distributed across the local highway network as per the distribution used in the previous Cuerden TA committed development flows.

Consented Cuerden Flows

5.4.3. As the site currently benefits from planning approval, the traffic flows associated with consented Cuerden scheme have also been used as a committed development, assuming the full build out of the consented development.

5.4.4. Traffic flows for the consented development have been taken from the traffic flow diagrams provided within the Mott MacDonald TA Addendum appendices. These are included within the committed development flows for the Do-Minimum scenario in the traffic assessments undertaken in Chapter 7.

5.4.5. For the Do-Something scenario, which assess the impact of the revised masterplan, the consented development flows have been removed and replaced with the traffic flows associated with the proposed development.

5.5 EXPECTED DEVELOPMENTS

5.5.1. As requested by LCC, expected developments within the local area have also been considered. These are developments for which applications have been submitted but are yet to be decided upon. This includes applications at Pickerings Farm, the A582 dualling scheme and Farington Cricket Amenity.

5.5.2. An outline application for a residential led mixed-use development of up to 920 dwellings, a local centre and primary school at Pickerings Farm was submitted in August 2021 (South Ribble Planning Reference: 07/2021/0886/ORM), along with an application for an additional 180 dwellings (South Ribble Planning Reference 07/2021/00887/ORM). Both applications were refused in November 2021. To date, no appeal has been launched however as the site is included within the South Ribble Local Plan (Policy C1) as an allocated residential led development, the proposed applications have been considered as an expected development. The background TEMPro growth factors applied to the traffic flows, outlined further in Section 6.7, account for a level of housing growth across South Ribble. As Pickerings Farm is included within the local plan, the traffic growth associated with this development is included within the TEMPro growth rates applied to the traffic flows and is therefore considered as part of the traffic flow scenarios.

5.5.3. A planning application for the dualling of A582 was submitted in February 2020 (Planning Ref: LCC/2020/0014) and as of May 2022, is yet to be determined. The dualling of the A582 is considered as an expected development.

5.5.4. A planning application for a cricket facility with 2 cricket oval, outdoor training nets and pavilion building, located off Stanifield Lane is shortly to be submitted. As this application is yet to be determined, it is considered as an expected development. The peak hour traffic flows associated with the proposed Farington Cricket Facility have been taken from the Transport Assessment accompanying the planning application.

5.5.5. The details of these expected developments are provided in Table 5.11 below. Weekday traffic flows associated with the A582 dualling are available within the supporting information from the A582

dualling planning application. The forecast changes in traffic flows associated with this scheme are considered further within the junction modelling assessments.

Table 5-11 – Expected Developments

Site	Development Proposals	Status
Pickerings Farm (07/2021/00886/ORM)	1,100 dwellings and local centre (Local Plan up to 1350 dwellings)	Application submitted August 2021
A582 Dualling (LCC/2020/0014)	Dualling of A582	Application submitted Feb 2020
Farington Cricket Amenity	Cricket facility including 2 cricket ovals and associated training facilities and pavilion building	To be submitted for planning

5.5.6. Two planning applications have been submitted in March 2022 by Brookhouse Group Limited to provide new access points off Stanifield Lane and Old School Lane. Brookhouse Group own the land within the 'Future Phase' zones to the north and south. Planning application reference 07/2022/00245/FUL is for the creation of a new vehicle access off Stanifield Lane to the south of Fowler Lane. Planning Reference 07/2022/00251 is for the realignment of the existing junction at A582 / Old School Lane. The planning applications are currently being considered by SRBC and are expected to be determined in June/July 2022 subject to assessment by SRBC officers and any additional information which may be requested.

5.5.7. The Old School Lane access point appears to allow access to the area of land labelled Future Phase on the Site layout, north of the residential component (Zone E) of the Development. For the purposes of this TA and the associated modelling, we have assumed the Old School Lane access point is not in place, and all residential traffic (Lancashire Central Zone E plus the Brookhouse land) is accessed from the new junction onto Stanifield Lane. This is considered a 'worst case' scenario as it loads all traffic onto one junction, and if the Brookhouse access was approved traffic at the new Stanifield Lane junction would reduce.

5.5.8. Likewise, with the Stanifield Lane access, this TA and the modelling assume that Zone D and the Brookhouse 'Future Phase' land west of Zone D are accessed from the single Stanifield Lane access within Zone D. This is considered a 'worst case' scenario as it loads all traffic onto one junction, and if the Brookhouse access was approved, traffic at the new Zone D / Stanifield Lane junction would reduce.

5.5.9. The Applicant will continue to have regard for the proposals and, following determination of the two applications, can provide an addendum to this TA if required.

5.6 FORECAST TRAFFIC FLOWS

5.6.1. The 2016 surveyed traffic flows have been factored using TEMPro 7.2. Trip ends by time period were selected for the 2016 base year and the 2032 and 2037 future years. The following parameters were used in the calculation of growth rated:

- South Ribble Local Authority District geographic area;
- All trip purposes;
- Car drivers only;
- Origin/Destination;
- Urban Road type; and
- Principal Roads.

5.6.2. As per LCC guidance, the TEMPro growth rates have been adjusted to avoid double counting of future developments in the region. Following the method of adjustment outlined in the Mott MacDonald Cuerden TA addendum, the growth rates have been revised by removing of housing and job growth associated with South Ribble MSOA 012 (as this is covered by the Cuerden proposed development flows) and removing development levels accounted for by the committed developments. The level of growth associated with the expected (but unconsented) development at Pickerings Farm is accounted for within the growth rates. The 2016 flows have been factored using these revised growth rates to create the 2032 and 2037 future traffic flows. The growth rates are provided in Table 5.12.

Table 5-12 – TEMPro growth rates – South Ribble

	AM Peak Period	PM Peak Period
2016-2032	1.09	1.08
2016-2037	1.13	1.12

5.7 TRAFFIC FLOW DIAGRAMS

5.7.1. The TEMPro growth rates, committed and expected development and proposed development traffic have been applied to the 2016 surveyed traffic flows and presented within the traffic flow diagrams provided in Appendix G. The traffic flow diagrams include the following scenarios:

- DM1 2032: Do-Minimum: 2032 + Committed Developments with consented development
- DM2 2032: Do-Minimum Sensitivity Test: 2032 + Committed and Expected Developments with contented development
- DM1 2037: Do-Minimum: 2037 + Committed Developments with consented development
- DM2 2037: Do-Minimum Sensitivity Test: 2037 + Committed and Expected Development with consented development
- DS1 2032: Do-Something: 2032 + Committed Developments + proposed development
- DS2 2032: Do-Something Sensitivity Test: 2032 + Committed and Expected Developments + proposed development
- DS1 2037: Do-Something: 2037 + Committed Developments + proposed development

- DS2 2037: Do-Something Sensitivity Test: 2037 + Committed and Expected Developments + proposed development

5.7.2. The above traffic flows are used in the junction capacity modelling and microsimulation modelling summarised in Chapter 7 of this TA.

6

ACTIVE TRAVEL AND SUSTAINABLE TRANSPORT

6 ACTIVE TRAVEL AND SUSTAINABLE TRANSPORT

6.1 SITE LOCATION

As set out in Chapter 2 of the TA, the Site is well located for sustainable travel to a number of local destinations using either active travel modes or public transport. The development will enhance these opportunities further, in particular through the provision of a high-quality foot and cycle network within the site and key connections off the Site.

6.2 PEDESTRIAN AND CYCLE PROVISION

6.2.1. The existing pedestrian and cycling infrastructure surrounding the Site and the local area can facilitate active travel trips to/from the site. Walking and cycling isochrones provided in Figures 2.6 and 2.8 show local areas within a 25-minute walk or 20-minute cycle of the site.

6.2.2. The internal layout of the site will provide suitable pedestrian and cycle routes between the various proposed uses and will enable active travel users to travel across and within the site safely and conveniently. Internal footways will provide access to each of the individual development plots and units, as well as connecting between the development plots.

6.2.3. The highways layout drawings included in Appendix D show indicative cross sections with a 3m shared footway/cycle way proposed adjacent to one side of the internal carriageway, and a 2m footway provided adjacent to the other side of the carriageway.

6.2.4. A 3m continuous shared footway/cycle way will be provided from the eastern site access at A49 Wigan Road, through the site and linking into the green infrastructure proposed within Zone A.

6.2.5. In addition to the paved footways, there are currently a number Public Rights of Way (PRoWs) crossing the Site. These existing PRoWs will be retained, partially diverted and upgraded as part of the development.

6.2.6. Green infrastructure is provided within the proposals providing residents and visitors access to good quality open spaces, and existing public Rights of Way located across the site will benefit for rerouting to provide connectivity to green spaces within the site, as well as connecting coherently to the wider footpaths and PRoW networks.

6.3 PROPOSED OFF-SITE MITIGATION

6.3.1. In addition to the existing local pedestrian and cycle infrastructure surrounding the site, proposed off-site mitigation works will help to enhance public transport provision, pedestrian routes, and links to the wider cycle network. The below summarises the off-site mitigation proposed along Stanifield Lane and the A582 Lostock Lane, which border the west and north of the site respectively. Future off-site mitigation at key junctions is also proposed and they are described further in Chapter 7.

Stanifield Lane

6.3.2. As shown indicatively on Drawing Ref MMD-370964-C-DR-00-XX-0002 in Appendix I, the off-site mitigation along Stanifield Lane includes a 1.5m cycle lane on-carriageway, a 2 m footway along the eastern side of Stanifield Lane tying in with footways at access points and the proposed on-site pedestrian provision. The proposed cycle lanes will tie in with the existing cycle lanes at the A582 / Stanifield Lane roundabout.

6.3.3. A toucan crossing is proposed to be provided to facilitate pedestrian crossing of Stanifield Lane from the site to the northbound bus stops on the west of Stanfield Lane. The toucan crossing is proposed on Stanifield Lane between Stoney Lane and the proposed residential access to the north off Stoney Lane.

6.3.4. Drawing Ref MMD-370964-C-DR-00-XX-0002 shows improvements to bus stop provision, providing a northbound bus stop closer to the proposed residential development zone and closer to the existing residential properties off Stoney Lane and Old School Lane. The southbound bus stop on Stanfield Lane is approximately 90m to the south of Stoney Lane. The proposed toucan crossing will provide pedestrian crossing facilities to the proposed northbound bus stop.

A582 Lostock Lane

6.3.5. There is existing pedestrian and cycle route to the north of the A582 Lostock Lane, adjacent to the eastbound carriageway, along its entire length between the A582 / Stanifield Lane roundabout and the A582 / A6 junction. Adjacent to the westbound carriageway there is a footway from the junction of Old School Lane to the A582 / Stanfield Lane roundabout. Signalised pedestrian crossing facilities are currently provided at the A582 / Stanifield Lane.

6.3.6. As shown indicatively on Drawing Ref MMD-370964-C-DR-00-XX-0016 in Appendix I, the proposed off-site mitigation along the A582, includes a signalised pedestrian crossing to the east of the junction of the A582 with Old School Lane junction, providing an additional signalised crossing point on the A582 Lostock Lane.

6.3.7. The proposed off-site mitigations provide additional crossing points from the Site to the local area and will facilitate safe and convenient pedestrian routes for future residents of the site and for future users of the mixed-use development using active travel to access facilities on site.

6.4 PUBLIC TRANSPORT PROVISION

6.4.1. Public transport services are available in close proximity to the site, as highlighted in Chapter 2. Bus stops located on Stanifield Lane, adjacent to the site are served by frequent local bus routes to Preston, Lostock Hall, Farington and Leyland. These timetabled services provide a sustainable mode of transport to the site and operate up to a 12-minute frequency on weekdays and Saturday, and up to 30-minute frequency on Sunday. The improvement to bus stops on Stanifield Lane outlined above as part of the proposed off-site mitigations, and the provision of a toucan crossing to access the northbound bus stop on Stanifield Lane will enhance the current provision.

6.4.2. At this stage it is not proposed to divert bus services via the site itself, but the flexibility to do this in the future is maintained through highway design which will allow the passage of public buses if required.

6.4.3. The site is within walking and cycling distance of local rail stations, Leyland and Lostock Hall. Sustainable journeys to and from the site can make use of the existing rail services from these stations. The pedestrian route from both stations to the site would route along existing footways and tie into footway provision on site. Up to hourly services are available from/to stations within Greater Manchester, Merseyside, Burnley, Blackburn and Preston.

6.5 FRAMEWORK TRAVEL PLAN

6.5.1. This TA should be read alongside the Framework Travel Plan also submitted with the planning application.

6.5.2. The purpose of the FTP is to demonstrate how sustainable and active travel can be used to access the site, and how these sustainable modes of travel will be promoted to future users of the site. The FTP will provide overarching aims, objectives, targets and measures, as well as methods for monitoring travel use.

6.5.3. The FTP will encourage a variety of travel options, which will give future employees, residents and visitors travelling to the site an opportunity to make more informed choices about how they travel and how they can make a valuable contribution to a sustainable environment.

6.5.4. The objectives of the Framework Travel Plan are as follows:

- To minimise the traffic generated by staff, residents, and visitors.
- To reduce the number of single occupancy vehicle journeys.
- To continually increase the proportion of trips by walking, cycling and public transport.
- To increase modal choice for staff, residents, and visitors.
- To reduce the carbon footprint of the development.

6.5.5. The FTP is a live document which will be monitored and will evolve with the development of the site, The targets and travel plan measures will be reviewed once the site is occupied, to ensure the most appropriate methods of promoting active and sustainable travel to future users of the site are adopted.

6.6 BREEAM COMPLIANCE

6.6.1. BREEAM compliance summary is included in Appendix H.

7

TRAFFIC CAPACITY ASSESSMENTS

7 TRAFFIC CAPACITY ASSESSMENTS

7.1 SCOPE OF ASSESSMENT

7.1.1. The traffic impact on the local highway as a result of the proposed development will be assessed at the below junctions as agreed with LCC.

- J1. A582 Farrington Rd/ A5083 Stanifield Ln / B5254 Watkin Ln (4-arm signalised roundabout);
- J2. Cuerden Way/ A582 Lostock Ln (4-arm signalised junction);
- J3. A6 Lostock Ln / Cuerden Way / South Rings (4 arm signalised junction);
- J4. A6 Lostock Ln / B6256 Station Rd / A49 Wigan Rd (4-arm signalised junction);
- J5. M6 / A6 (4-arm roundabout);
- J6. A5083 Stanifield Rd / A5083 Lydiate Ln / B5254 Stanifield Rd (3-arm- p/c junction);
- J7. A5083 Lydiate Ln / A49 Wigan Rd (3-arm-signalised junction);
- J8. M6 / M65 (Part Signalised 4-arm roundabout);
- J9. Nook Lane / A49 Wigan Road (3-arm- p/c junction);
- J10. M65 / Proposed Development Access (2-arm Roundabout);
- J11. Old Lostock Lane /A49 (p/c junction);
- J12. Todd Lane South/ A582 Lostock Ln / Old School Ln (p/c, left in left out);
- J13. B5256 Leyland Way / B5256 Lancaster Lane / A49 Wigan Road (4 Arm Signalised Junction).

7.1.2. The impact of the proposed development will be compared to the impact of the consented development on the local highway network.

7.2 SCENARIOS

7.2.1. This TA will assess the junctions based on the scenarios for the morning and evening peak weekday periods:

- Do-Minimum: 2032 + Committed Developments with consented development
- Do-Something: 2032 + Committed Developments + proposed development
- Do-Minimum Sensitivity Test: 2032 + Committed and Expected Developments with consented development
- Do-Something Sensitivity Test: 2032 + Committed and Expected Developments + proposed development
- Do-Minimum: 2037 + Committed Developments with consented development
- Do-Something: 2037 + Committed Developments + proposed development
- Do-Minimum Sensitivity Test: 2037 + Committed and Expected Developments with consented development
- Do-Something Sensitivity Test: 2037 + Committed and Expected Developments + proposed development

7.2.2. For signal-controlled junctions, operational performance is reported in terms of Degree of Saturation (DoS). A DoS result of below 90% typically demonstrates that a junction arm or turning movement is operating ‘within capacity’. A result between 90-100% DoS is considered to indicate a junction is close to capacity. A Practical Reserve Capacity (PRC) is also presented for the junction, a positive PRC value generally indicates that no junction arms have a DoS of greater than 90%.

7.2.3. Junctions 10 software, the industry standard for undertaking capacity assessments of priority-controlled junctions has been used to assess priority junctions.

7.2.4. The trip generation associated with the proposed development provides a worst-case scenario, with maximum floor spaces from the parameters for the highest generating land uses assumed within the assessment. As outlined in Chapter 3, the development floor space for each zone is dictated by the maximum for the zone. However, each zone consists of a range of land uses, with their maximum floor spaces outlined on the parameters plan. The traffic modelling results presented below therefore represent a highly robust worst-case scenario.

7.3 TOTAL JUNCTION FLOWS

Table 7.1 summarises the difference in development traffic flows when comparing the consented scheme to the proposed scheme at the junctions assessed.

Table 7-1 – Total Development Flows per junction

Junction	AM Peak Consented	AM Peak Proposed	AM Peak Difference	PM Peak Consented	PM Peak Proposed	PM Peak Difference
1	236	207	**-29**	300	232	-68
2	533	438	**-95**	717	514	-203
3	110	108	**-2**	148	119	-29
4 / 11	238	186	**-52**	325	224	-101
5	350	329	**-21**	480	371	-109
6	93	55	**-38**	126	74	-52
7	103	81	**-22**	141	97	-44
8	658	687	29	897	748	-149
9	128	78	**-50**	176	104	-72
10	1,140	1,067	**-73**	1,563	1206	-357
12	222	191	**-31**	286	217	-69

13	103	81	**-22**	141	97	-44

7.3.1. Table 7.1 shows that the development traffic flows are lower for the proposed development and consented development at all but one junction. In the AM peak at junction 8, there is an increase in development traffic flows of 29 vehicles, in the PM peak, there are 149 vehicles less at junction 8. In general, there decrease in traffic flows at the individual junctions is larger in the PM peak than the AM peak. It is expected that the impact of the development traffic on the individual junctions would reduce with the proposed scheme compared to the consented scheme due to reduced peak hour traffic flows.

7.4 OFF-SITE MITIGATION

7.4.1. The Mott MacDonald TA Addendum outlined the off-site mitigation proposed to support the increased demand in traffic resulting from the currently vacant development site. This included mitigation at four off-site junctions as well as the works proposed at the M65 terminus to enable access to the site. The mitigation proposed to support the current proposals match that proposed for the consented scheme. A plan showing the locations of the proposed mitigation and the Mott MacDonald drawings of the mitigation are included in Appendix I.

7.4.2. The proposed mitigations, as per the Mott MacDonald TA Addendum, have been included within the junction modelling presented below and within the VISSIM microsimulation modelling. As outlined in Chapter 5, the proposed scheme generates less vehicle trips than the consented scheme, therefore provision of the same scale of mitigation as previously proposed is considered as more than appropriate for the revised development.

7.4.3. As previously outlined within the Mott MacDonald TA Addendum, the off-site mitigation includes:

Junction 1: A582/Stanifield Lane/Watkin Lane

- Lengthening and widening of Stanifield Lane Approach arm (extra capacity in Left and right turn lanes)
- East and West A582 approach arms will be widened allowing for lengthening of the short left and right turn lanes
- Anti-clockwise signalling

7.4.4. The proposed mitigation at this junction is shown in Drawing reference MMD-370964-C0DR-00-XX-0011 Rev P5 included in Appendix I.

Junction 2: A582/A6 London Way

- Widening of A6 London Way southbound to provide longer left turn lane and improved capacity for the right turn lane
- A dedicated left turn to the M65 from Lostock Lane east
- Widening right turn lane from south (to extend to M65 terminus) and extension of the segregated left turn lane
- Lengthening 3 lane approach from the west on Lostock Lane
- Widening of both the A6 approaches and exits

7.4.5. The proposed mitigation at this junction is shown in Drawing reference MMD-370964-C0DR-00-XX-0012 Rev P5 included in Appendix I.

Junction 4: A6 Lostock Lane /B6258 Station Rd/A49 Wigan Rd

- Dedicated Left turn lanes on Lostock Ln for both east and west arms
- Enhancements to storage at Station Rd left turn stop line and further extension of the left turn lane to the north of the bridge parapet
- Lengthening of approach lanes to the Wigan Road stop lines
- Additional pedestrian crossing on the eastern arm

7.4.6. The proposed mitigation at this junction is shown in Drawing reference MMD-370964-C-DR-00-XX-0013 Rev P5 included in Appendix I.

Junction 5: M6 Junction 29 N / Church Rd A6 / Lostock Ln A6

- Signalisation of the M6 SB slip road and associated eastbound circulatory

Additional off-site mitigation (as discussed in more detail in Chapter 6):

- Stanifield Lane reduced to 30mph, provision of gateway features at northern extent, SPIDs, signalised pedestrian crossing near Stoney Ln
- Lostock Lane – three lanes in each direction on Lostock Lane between Stanifield Lane roundabout and Sainsburys roundabout, controlled signalised Toucan crossing over A582 Lostock Lane.

7.5 LINSIG MODELLING RESULTS

7.5.1. Table 7.2 summarises the results from the LinSig modelling. Due to the number of results and scenarios, the results have been presented in a summary table indicating key metrics and summarising the difference between performance with the consented scheme (Do-Minimum) and the proposed scheme (Do-Something) for the 2037 scenario. The full junction modelling outputs can be found in the reports provided in Appendix J.

Junction 1 Stanifield Lane/Lostock Lane/Watkin Lane

7.5.2. The junction of Stanifield Lane/ A582 / Watkin Lane is a four-arm signal-controlled roundabout, with pedestrian crossing facilities. This junction was signalised as part of the City Deal Programme.

7.5.3. The modelling work supporting the previous application at the site identified this junction as busy during the weekday peak periods. The junction operates under MOVA control, which provides additional capacity beyond that shown in the modelling results.

7.5.4. The mitigation outlined in Section 7.4 above has been included within the LinSig model used.

7.5.5. The results show that the junction is over capacity in both the consented scheme and proposed scheme scenarios, in both peak periods. There is an overall improvement in the performance of the junction with the proposed scheme compared to with the consented development flows.

Junction 2 A6 London Road/A6 Lostock Lane/A582 Lostock Lane

7.5.6. The junction of the A6 London Road / A6 Lostock Lane / A582 Lostock Lane is a four-arm signal-controlled roundabout, with signalised pedestrian crossing facilities on the northern arm.

7.5.7. The modelling work supporting the previous application at the site, also identified this junction as busy during the weekday peaks and proposed mitigation to ease congestion at this junction, as outlined in Section 7.4.

7.5.8. The above mitigation is included is the model used to assess the Do-Minimum and Do-Something scenarios. The junction operates under MOVA control, which provides additional capacity beyond that shown in the modelling results.

7.5.9. The results show that the junction is over capacity in both the consented scheme and proposed scheme scenarios, in both peak periods. There is minimal difference in the overall performance of the junction when comparing the Do-Minimum and Do-Something Scenarios.

Junction 3 Cuerden Way/A6 Lostock Lane/Craven Drive

7.5.10. Junction 3 is a 4-arm signalised junction, with signalised pedestrian crossing facilities on all arms.

7.5.11. The previous modelling at this junction showed that the junction operates well in the AM peak and is busier in the PM peak. No mitigation is proposed at this junction.

7.5.12. The results show that the junction operates within capacity in all future scenarios in the AM peak and is over capacity in all future scenarios in the PM peak reflecting the busier conditions in this peak period.

7.5.13. Overall, there is minimal difference in the overall performance of the junction when comparing the Do-Minimum and Do-Something Scenarios.

Junction 4 &11 B6258/A6 Lostock Lane/Wigan Road/Old Lostock Lane

7.5.14. Junction 4 is a 4-arm signalised junction, with signalised pedestrian crossing facilities on the northern and eastern arms.

7.5.15. The mitigation outlined in Section 7.4, as per the previous application, has been included in the junction capacity modelling.

7.5.16. The results show that the junction operates within capacity in all future scenarios in the AM peak and is over capacity in the PM peak. In both peak periods, there is slight improvement in junction performance with the proposed development traffic compared to the consented development traffic.

Junction 5 M6/A6

7.5.17. Junction 5 is the junction of the M6 and A6 and is currently a large grade separated priority-controlled roundabout.

7.5.18. LinSig modelling includes proposed mitigation as outlined in Section 7.4 and the drawing provided in Appendix I (Ref: MMD-370964-C-DR-00-XX-0014). This includes signalising the SB M6 slip road at its interface with the roundabout and widening to three lanes.

7.5.19. The results show that the junction is over capacity in both peak periods, especially in the AM peak which reports a large amount of queuing on the southern arm of the junction. While the modelling shows the junction to be over capacity in all scenarios, the junction performs better in the Do-Something than the Do-Minimum.

7.5.20. It is understood that additional correspondence with LCC and NH was undertaken post planning submission of the 2017 application at the Site, with alternative mitigation of a fully signalised roundabout suggested. Further correspondence on the most suitable mitigation for this junction may be appropriate to support the current development proposals.

Junction 7 A5083/Wigan Road

7.5.21. The junction of A5083 and Wigan Road is a three-arm signalised junction. No mitigation is proposed at this junction.

7.5.22. The junction is within capacity in all future scenarios, for both the AM and PM peak periods. The modelling results show a slight increase in the performance of the junction with the proposed development, compared to the consented development.

Junction 8 M65/M6

7.5.23. The junction of the M6 and M65 is a large grade separated roundabout, which is partially signalised. No mitigation is proposed at this junction.

7.5.24. The junction is over capacity in the AM peak period both with the consented and proposed development. In the PM peak, the junction operates within capacity and the modelling results show a small increase in the performance of the junction with the proposed development, compared to the consented development in the PM peak.

Junction 10 M65 Terminus

7.5.25. The M65 terminus is proposed to be signalised and redesigned as part of the proposals, to include an access point for the development site on its western arm. The revised layout has been modelled in LinSig.

7.5.26. In the AM peak, the junction is reported to be operating over capacity in both the Do-Minimum and Do-Something scenarios. The performance of the junction improves slightly as a result of the proposed development.

7.5.27. In the PM peak, the junction operated within capacity for the proposed development scenarios, improving on the consented scenario.

Junction 13 Leyland Way / Lancaster Lane

7.5.28. The junction of Wigan Road, Lancaster Lane and Leyland Way is a 4-arm signalised junction.

7.5.29. The junction is operating just over capacity in both the AM and PM peak periods. The results show that overall, there is minimal difference in the overall performance of the junction when comparing the Do-Minimum and Do-Something Scenarios.

Wigan Road Access Junction

7.5.30. As outlined in Chapter 3, the site access off Wigan Road is proposed to be a four-arm signalised junction, with the site access as the western arm, Wigan Road the northern and southern arm and the access to Cuerden Valley Car Park as the eastern arm. Pedestrian crossing facilities are provided at this junction.

7.5.31. Th layout of the junction is shown in Drawing 84465-WSP-XX-DR-001, in Appendix D. This layout has been used for both the Do-Minimum and Do-Something scenarios.

7.5.32. The junction modelling shows that the proposed junction operates in the AM peak and just over capacity in the PM peak. There is an improvement in the performance of the junction in the Do-Something scenario compared to the Do-Minimum scenario.

Stanifield Lane Access Junction

7.5.33. As outlined in Chapter 3, the site access off Stanifield Lane to Zone D is proposed to be a three-arm signalised junction, as per the consented scheme, with the site access forming the eastern arm.

7.5.34. The proposed layout of the junction is shown in Drawing 84465-WSP-XX-DR-002. This layout has been used for both the Do-Minimum and Do-Something scenarios.

7.5.35. The junction modelling shows that the proposed junction operates within capacity in all future scenarios, in both the AM and PM peak periods.

Table 7-2 – 2037 LinSig Results

	2037 AM DM1		2037 AM DS1		Difference		2037 PM DM1		2037 PM DS1		Difference	
	Mean Max Queue (PCU)	DoS (%)	Mean Max Queue (PCU)	DoS (%)	Mean Max Queue (PCU)	DoS (%)	Mean Max Queue (PCU)	DoS (%)	Mean Max Queue (PCU)	DoS (%)	Mean Max Queue (PCU)	DoS (%)
Junction 1: A582 Farrington Rd/ A5083 Stanifield Ln / B5254 Watkin Ln												
Arm 1 Lane 1 + 2: B5254 Watkin Lane	27.4	99.9	40.2	103.3	12.8	3.4	235.8	167.0	13.5	91.9	-222.3	-75.1
Arm 2 Lane 1 + 2: A582 Lostock Lane	163.3	131.6	14.5	89.8	-148.8	-41.8	63.7	105.9	94.4	111.6	30.7	5.7
Arm 2 Lane 3 + 4: A582 Lostock Lane	169.7	128.0	16.9	91.1	-152.8	-36.9	75.4	106.2	118.9	112.5	43.5	6.3
Arm 3 Lane 1 + 2: A5083 Stanifield Lane	5.2	64.0	5.2	64.2	0.0	0.2	2.1	25.0	2.3	28.7	0.2	3.7
Arm 3 Lane 3: A5083 Stanifield Lane	32.7	108.5	34.5	109.3	1.8	0.8	6.0	52.2	7.0	62.4	1.0	10.2
Arm 4 Lane 1 + 2: A582 Farington Rd	16.7	88.7	35.0	102.3	18.3	13.6	11.2	77.2	12.5	82.7	1.3	5.5
Arm 4 Lane 3 + 4: A582 Farington Rd	17.2	89.6	36.6	102.4	19.4	12.8	11.7	79.3	12.9	84.3	1.2	5.0
PRC over all lanes (%)	**-46.2**		**-21.5**		**+24.7**		**-85.6**		**-25.8**		**+59.8**	
Junction 2: A5 / Cuerden Way / A582 Lostock Ln												
Arm 1 Lane 1: A6 London Way	9.1	74.0	9.1	74.0	0.0	0.0	10.2	72.6	10.6	75.6	0.4	3.0
Arm 1 Lane 2: A6 London Way	6.9	61.3	6.5	59.6	-0.4	-1.7	6.4	53.2	6.6	54.6	0.2	1.4
Arm 1 Lane 3 + 4: A6 London Way	6.6	67.9	6.3	65.5	-0.3	-2.4	7.9	72.1	8.1	73.6	0.2	1.5
Arm 2 Lane 1 + 2: A6 Lostock Lane	5.5	65.5	5.4	64.7	-0.1	-0.8	9.1	78.7	7.9	72.5	-1.2	-6.2
Arm 2 Lane 3: A6 Lostock Lane	3.7	49.0	2.1	29.1	-1.6	-19.9	6.9	66.7	4.4	48.0	-2.5	-18.7
Arm 2 Lane 4: A6 Lostock Lane	11.3	91.8	11.3	91.8	0.0	0.0	16.0	95.2	16.0	95.2	0.0	0.0
Arm 3 Lane 1 from M65	1.6	76.7	1.6	76.4	0.0	-0.3	2.4	83.0	2.1	80.8	-0.3	-2.2
Arm 3 Lane 2 from M65	11.8	74.2	11.0	70.9	-0.8	-3.3	14.6	87.2	9.8	69.9	-4.8	-17.3
Arm 3 Lane 3 + 4 from M65	4.0	41.4	3.8	40.1	-0.8	-1.3	3.7	39.7	3.2	35.9	-0.5	-3.8
Arm 4 Lane 1 + 2 A582 Lostock Lane	24.1	96.3	20.6	93.9	-3.5	-2.4	11.6	83.7	11.7	83.8	0.1	0.1
Arm 4 Lane 3 A582 Lostock Lane	17.9	89.6	16.2	85.9	-1.7	-3.7	11.4	75.5	1.4	75.6	-10.0	0.1

Arm 4 Lane 4 A582 Lostock Lane	18.8	91.2	16.3	86.3	-2.5	-4.9	12.9	80.4	12.1	77.9	-0.8	-2.5
PRC over all lanes (%)	**-7.0**		**-7.2**		**-0.2**		**-5.8**		**-5.8**		**0.0**	
Junction 3: A6 Lostock Lane / Cuerden Way												
Arm 1 Lane 1 A6 Lostock Lane (E)	6.4	63.0	6.4	63.0	0.0	0.0	6.0	64.4	6.0	64.4	0.0	0.0
Arm 1 Lane 2 A6 Lostock Lane (E)	10.8	73.8	10.9	73.9	0.1	0.1	18.9	97.5	16.6	95.1	-2.3	-2.4
Arm 1 Lane 3 + 4 A6 Lostock Lane (E)	12.7	80.4	12.7	80.4	0.0	0.0	23.6	98.3	20.6	97.3	-3.0	-0.9
Arm 8 Lane 1 Cuerden Way	4.3	36.5	4.3	36.5	0.0	0.0	8.2	55.4	8.2	55.4	0.0	0.0
Arm 8 Lane 2 + 3 Cuerden Way	4.5	72.0	4.5	72.0	0.0	0.0	24.8	102.5	24.8	102.5	0.0	0.0
Arm 5 Lane 1 + 2 A6 Lostock Lane (W)	10.3	70.2	10.3	69.9	0.0	-0.3	16.2	92.3	15.7	91.5	-0.5	-0.8
Arm 5 Lane 3 + 4 A6 Lostock Lane (W)	11.8	77.5	11.7	77.3	-0.1	-0.2	22.8	97.0	21.8	96.5	-1.0	-0.5
Arm 6 Lane 1 + 2 Craven Drive	1.8	15.6	1.8	15.6	0.0	0.0	6.3	46.4	6.3	46.4	0.0	0.0
Arm 6 Lane 3 Craven Drive	1.7	36.7	1.7	36.7	0.0	0.0	9.8	98.9	9.8	98.9	0.0	0.0
PRC over all lanes (%)	**11.0**		**11.0**		**-0.0**		**-14.0**		**-14.0**		**-0.0**	
Junction: 4 / 11: A6 Lostock Ln / B6256 Station Rd / A49 Wigan Rd												
Arm 1 Lane 1 + 2: B6258 Station Road	13.6	84.0	14.0	84.9	0.4	0.9	24.9	100.9	22.2	98.2	-2.7	-2.7
Arm 1 Lane 3 + 4: B6258 Station Road	6.3	55.6	6.4	55.7	0.1	0.1	13.2	85.0	12.0	79.6	-1.2	-5.4
Arm 2 Lane 1 + 2: A6 Lostock Lane WB	17.2	77.3	17.0	76.3	-0.2	-1.0	28.4	98.2	26.7	97.2	-1.7	-1.0
Arm 2 Lane 3 + 4: A6 Lostock Lane WB	12.9	82.5	12.9	82.5	0.0	0.0	22.9	97.8	22.8	97.8	-0.1	0.0
Arm 3 Lane 1: A49 Wigan Road	13.0	39.4	13.0	39.7	0.0	0.3	13.9	43.9	15.7	48.5	1.8	4.6
Arm 3 Lane 2: A49 Wigan Road	11.8	36.2	11.8	35.1	0.0	-1.1	12.0	40.2	9.1	32.0	-2.9	-8.2
Arm 4 Lane 1 + 2: A6 Lostock Lane EB	15.8	83.3	15.8	83.3	0.0	0.0	17.8	88.5	25.6	96.9	7.8	8.4
Arm 4 Lane 3 + 4: A6 Lostock Lane EB	15.3	80.9	15.3	80.8	0.0	-0.1	17.0	89.5	20.8	97.1	3.8	7.6
PRC over all lanes (%)	**7.1**		**6.0**		**+1.1**		**-12.2**		**-9.1**		**+3.1**	
Junction: 5 M6 / A6												
Arm 1 Lane 1 M6 N	1.9	19.8	9.3	94.4	7.4	74.6	3.4	32.6	3.3	31.2	-0.1	-1.4

Arm 1 Lane 2 M6 N	2.1	21.0	13.5	100.5	11.4	79.5	3.8	33.7	3.6	32.3	-0.2	-1.4
Arm 1 Lane 3 M6 N	4.8	42.6	120.4	181.7	115.6	139.1	7.6	60.1	7.0	56.0	-0.6	-4.1
Arm 2 Lane 1 + 2 A6 E	10.0	86.4	5.0	61.2	-5.0	-25.2	85.7	112.9	73.9	111.2	-11.8	-1.7
Arm 2 Lane 3 A6 E	7.8	79.3	3.9	54.0	-3.9	-25.3	61.7	112.3	52.6	110.7	-9.1	-1.6
Arm 3 Lane 1 + 2 M6 M65 S	226.7	454.1	159.6	213.1	-67.1	-241.0	28.8	107.3	19.4	101.6	-9.4	-5.7
Arm 3 Lane 3 M6 M65 S	184.9	539.8	140.6	246.1	-44.3	-293.7	29.0	112.9	25.6	111.7	-3.4	-1.2
Arm 4 Lane 1 A6 W	0.2	29.5	0.2	28.9	0.0	-0.6	0.2	30.9	0.2	28.4	0.0	-2.5
Arm 4 Lane 2 A6 W	1.2	54.3	5.4	75.8	4.2	21.5	3.7	56.2	3.6	56.0	-0.1	-0.2
Arm 4 Lane 3 A6 W	1.5	59.7	8.2	78.2	6.7	18.5	5.7	70.6	5.3	70.1	-0.4	-0.5
PRC over all lanes (%)	-499.8		-173.4		+326.4		-25.4		-24.1		+1.3	
Junction 7: A5083 / A49 Wigan Roan												
Arm 1 Lane 1 +2: Wigan Road North	6.2	49.1	6.4	49.5	0.2	0.4	20.6	88.6	18.2	85.2	-2.4	-3.4
Arm 2 Lane 1 + 2: Wigan Road South	10.9	75.2	10.2	74.4	-0.7	-0.8	8.8	66.6	8.3	64.7	-0.5	-1.9
Arm 3 Lane 1 A5083	11.1	75.2	10.8	72.9	-0.3	-2.3	17.6	86.8	17.6	86.8	0.0	0.0
PRC over all lanes (%)	**19.7**		**21.0**		**+0.3**		**1.6**		**3.7**		**+2.1**	
Junction 8: M6 / M65												
Arm 1 Lane 1 +2 M6 N	1.8	43.8	1.7	65.1	-0.1	21.3	1.4	45.7	**1.6**	**60.5**	0.2	14.8
Arm 1 Lane 3 M6 N	3.5	77.3	3.8	79.8	0.3	2.5	2.8	71.6	**2.6**	69.8	-0.2	-1.8
Arm 2 Lane 1 +2 M65 E	1.0	67.4	1.0	67.4	0.0	0.0	1.1	69.6	**1.1**	69.6	0.0	0.0
Arm 2 Lane 3 M65 E	0.8	33.0	0.8	33.5	0.0	0.5	0.6	27.0	**0.6**	26.7	0.0	-0.3
Arm 3 Lane 1 +2 M6 S	37.0	96.1	27.0	100.4	-10.0	4.3	2.9	84.2	**2.9**	84.2	0.0	0.0
Arm 3 Lane 3 M6 S	47.6	104.6	78.8	111.0	31.2	6.4	1.2	53.2	**1.0**	51.9	-0.2	-1.3
Arm 4 Lane 1 M65 W	4.3	73.2	4.5	75.5	0.2	2.3	1.6	26.9	**1.6**	27.5	0.0	0.6
Arm 4 Lane 2 M65 W	13.2	97.9	15.1	99.5	1.9	1.6	7.7	76.8	**8.2**	80.3	0.5	3.5
PRC over all lanes (%)	**-16.2**		**-23.3**		**-7.1**		**6.9**		**6.8**		**+0.1**	

Junction 10: M65 / Site Access												
Arm 1 Lane 1 M65 N	17.1	76.5	16.8	75.7	**-0.3**	**-0.8**	18.9	77.3	**16.8**	74.4	**-2.1**	**-2.9**
Arm 1 Lane 2+3 M65 NN	15.7	82.2	16.0	80.7	**0.3**	**-1.5**	19.1	81.9	**17.1**	78.3	**-2.0**	**-3.6**
Arm 2 Lane 1 M65 E	84.1	109.7	67.7	106.1	**-16.4**	**-3.6**	16.4	87.3	**15.1**	84.0	**-1.3**	**-3.3**
Arm 2 Lane 2 M65 E	83.6	109.6	67.2	106.0	**-16.4**	**-3.6**	17.3	89.0	**16.2**	86.9	**-1.1**	**-2.1**
Arm 3 Lane 1 M6 E	45.9	108.7	41.9	106.8	**-4.0**	**-1.9**	24.4	89.7	**23.0**	86.5	**-1.4**	**-3.2**
Arm 3 Lane 3 M6 E	45.4	108.9	41.4	106.6	**-4.0**	**-2.3**	26.1	91.7	**21.9**	84.7	**-4.2**	**-7.0**
Arm 4 Lane 1 Site Access	3.1	43.4	2.5	38.6	**-0.6**	**-4.8**	11.6	76.2	**7.6**	64.4	**-4.0**	**-11.8**
Arm 4 Lane 2+3 Site Access	1.8	25.7	2.1	30.6	**0.3**	**4.9**	6.6	61.9	**5.7**	58.8	**-0.9**	**-3.1**
PRC over all lanes (%)	**-21.8**		**-18.7**		**+3.1**		**-1.9**		**3.6**		**+5.5**	
Junction 13: B5256 Leyland Way / B5256 Lancaster Lane / A49 Wigan Road												
Arm 1 Lane 1 Wigan Road N	10.9	92.6	10.3	91.2	-0.6	-1.4	14.3	93.2	14.0	93.7	-0.3	0.5
Arm 1 Lane 2 + 3 Wigan Road N	14.2	96.2	14.2	96.2	0.0	0.0	17.7	96.2	17.6	96.6	-0.1	0.4
Arm 2 Lane 1 + 2 Lancaster Lane	21.3	98.5	21.3	98.5	0.0	0.0	10.4	92.3	10.4	92.3	0.0	0.0
Arm 3 Lane 1 + 2 Wigan Rd S	26.0	97.2	24.9	96.5	-1.1	-0.7	20.8	97.0	17.0	93.4	-3.8	-3.6
Arm 3 Lane 3 + 4 Wigan Rd S	12.9	93.9	12.5	93.3	-0.4	-0.6	11.0	92.6	8.9	86.6	-2.1	-6.0
Arm 4 Lane 1 + 2 Leyland Way	4.0	48.3	4.0	48.3	0.0	0.0	14.3	92.8	14.3	92.8	0.0	0.0
Arm 4 Lane 3 Leyland Way	8.5	85.1	8.5	85.1	0.0	0.0	6.8	68.3	6.8	68.3	0.0	0.0
Arm 4 Lane 4 Leyland Way	8.6	85.4	8.6	85.4	0.0	0.0	6.9	68.5	6.9	68.5	0.0	0.0
PRC (%)	**-9.4**		**-9.4**		**0.0**		**-7.8**		**-7.3**		**+0.5**	
A49 Wigan Road Site Access												
Arm 1 Lane 1 + 2: A49 N Approach	19.1	80.4	17.7	77.4	-1.4	-3.0	33.0	94.2	30.6	91.9	-2.4	-2.3
Arm 4 Lane: Car Park Approach	0.4	8.0	0.4	8.0	0.0	0.0	0.7	16.0	0.7	16.0	0.0	0.0
Arm 2 Lane 1: A49 S Approach	23.6	81.3	22.1	78.1	-1.5	-3.2	30.3	96.0	25.3	89.9	-5.0	-6.1

Arm 3 Lane 1 + 2: Strategic Site Approach	1.2	28.7	0.7	17.9	-0.5	-10.8	7.9	90.5	2.8	60.0	-5.1	-30.5
PRC (%)	10.7		15.3		**+4.6**		-6.6		-2.1		**+4.5**	
Stanifield Lane Site Access												
Arm 1 Lane 1: A5083 N Approach	5.4	41.0	5.3	40.7	-0.1	-0.3	6.4	46.4	6.3	46.3	-0.1	-0.1
Arm 3 Lane 1 + 2: Site Approach	0.6	12.8	0.3	6.7	-0.3	-6.1	2.2	46.5	1.1	23.9	-1.1	-22.6
Arm 2 Lane 1 + 2: A5083 S Approach	7.1	54.2	7.0	52.6	-0.1	-1.6	5.1	44.5	5.1	43.7	0.0	-0.8
PRC (%)	66.1		71.0		**+4.9**		93.6		94.6		**+1.0**	

Table 7-3 – 2037 PICADY Results

	2037 AM DM1			2037 AM DS1			Difference			2037 PM DM1			2037 PM DS1			Difference		
	Queue (PCU)	Delay (secs)	RFC	Queue (PCU)	Delay (secs)	RFC	Queue (PCU)	Delay (secs)	RFC	Queue (PCU)	Delay (secs)	RFC	Queue (PCU)	Delay (secs)	RFC	Queue (PCU)	Delay (secs)	RFC
Junction 6: A5083 / B5254																		
A5083 Lydiate Lane (LT)	31	367	1.24	28	324	1.19	-3	-43	-0.05	53	572	1.60	39	399	1.37	-14	-173	-0.13
A5083 Lydiate Lane (RT)	26	373	1.22	23	330	1.18	-3	-43	-0.04	24	610	1.57	18	442	1.33	-6	-168	-0.14
Stanifield Lane (RT)	2	10	0.57	2	10	0.57	-	-	-	33	96	1.00	27	79	0.97	-6	-17	-0.03
Junction 9: A49 / Nook Lane																		
A49 Wigan Rd S	0	7	0.01	0	7	0.01	-	-	-	0	8	0.05	0	7	0.05	-	-1	-
Nook Lane	0	0	0.00	0	0	0.00	-	-	-	0	20	0.03	0	18	0.03	-	-2	-
A49 Wigan Rd N	0	8	0.03	0	8	0.03	-	-	-	0	8	0.01	0	8	0.01	-	-	-
Junction 12 North: Todd Lane South / A582																		
Todd Lane South	42	608	1.47	40	572	1.43	-2	-36	-0.03	1	22	0.37	1	22	0.36	-	-	-0.01
Junction 12 South: Old School Ln / A582																		
Old School Lane	0	0	0	0	0	0	-	-	-	0	33	0.08	0	31	0.08	-	-2	-
Residential Site Access Junction: Stanifield Lane																		
Farington Cricket Right Turn	0	0	0.00	0	0	0.00	-	-	-	0	0	0.00	0	0	0.00	-	-	-
Farington Cricket Left Turn	0	0	0.00	0	0	0.00	-	-	-	0	0	0.00	0	0	0.00	-	-	-
Stanifield Lane South	0	7	0.00	0	7	0.00	-	-	-	0	8	0.01	0	8	0.01	-	-	-
Lancashire Central Residential Access	0	24	0.28	1	25	0.32	-	+1	+0.04	0	21	0.15	0	21	0.16	-	-	+0.01
Stanifield Lane North	0	0	0.00	0	0	0.00	-	-	-	0	0	0.00	0	0	0.00	-	-	-

Table 7-4 – Internal Roundabout 2037 ARCADY Results

	2037 AM DS1			2037 PM DS1		
	Queue (PCU)	Delay (secs)	RFC	Queue (PCU)	Delay (secs)	RFC
Internal Roundabout 1						
Northern Arm	0	4	0.09	0	5	0.26
Eastern Arm	0	2	0.30	0	2	0.17
Southern Arm	0	4	0.20	1	6	0.53
Internal Roundabout 2						
Northern Arm	1	4	0.43	0	3	0.22
Eastern Arm	0	5	0.16	0	5	0.29
Southern Arm	0	3	0.11	0	4	0.27
Western Arm	0	5	0.07	1	9	0.34

7.6 PICADY MODELLING RESULTS SUMMARY

7.6.1. Table 7.3 summarises the results from the modelling of the priority-controlled junctions using Junctions 10 software. The results have been presented in a summary table indicating key metrics and summarising the difference between performance with the consented scheme (Do-Minimum) and the proposed scheme (Do-Something) for the 2037 scenario. The full junction modelling outputs can be found in the reports provided in Appendix J.

Junction 6 A5083 Stanifield Road / Lydiate Lane

7.6.2. Junction 6 is a three-arm priority-controlled junction with Lydiate Lane as the minor arm.

7.6.3. Junction 6 is over capacity in both peak periods in the Do-Minimum scenarios. The junction remains over capacity in both peak periods in the Do-Something scenario, however with the revised scheme, the junction performs better than with the consented scheme.

Junction 9 Nook Lane / A49 Wigan Road

7.6.4. The results show that Junction 9 is well within capacity in both AM and PM peak scenarios, with no queueing and minimal delay.

7.6.5. There is a slight improvement to delay in the PM peak with the proposed scheme compared to the revised scheme, however the difference in junction capacity results between the Do-Minimum and Do-something scenarios at Junction 9 is negligible.

Junction 12 Todd Lane South/ A582 Lostock Ln / Old School Ln

7.6.6. The results for junction of Todd Lane South and the northern carriageway of the A582 Lostock Lane show Todd Lane South to be over capacity in the AM peak in all scenarios. This is a result of high traffic flows along the A582 compared to the number of vehicles attempting to exit Todd Lane South. The results show that the junction performs better in the Do-Something scenario compared to the Do-Minimum scenario, with delay reduced by approximately half a minute.

7.6.7. For the PM peak, the results show the junction to be operating well in all modelled future scenarios, with little difference between the Do-Minimum and Do-Something results.

Stanifield Lane Residential Access Junction

7.6.8. The proposed residential access off Stanifield Lane has been modelled as a 4-arm staggered junction with the access to the residential site as the eastern arm, and access to the proposed Farrington cricket amenity as the western arm.

7.6.9. The junction capacity results show this junction operates well and operates within capacity in all modelled scenarios. There is minimal difference in the results for the Do-Minimum scenario compared to the Do-Something scenario.

7.6.10. If the Farington cricket amenity, was not built out a three-arm junction could easily accommodate the demand for the residential access.

7.7 ARCADY MODELLING RESULTS SUMMARY

7.7.1. The two internal roundabouts within Zone A of the proposed Parameters Plan have been modelled using Junctions 10 ARCADY function. As these models are internal to the site, only the Do-

Something scenario has been tested. The forecast development traffic flows are the same in the 2032 and 2037 future year scenarios, therefore only the 2037 AM peak and PM peak scenarios have been modelled for these two junctions. The results are presented in Table 7.4 and are summarised below.

Primary Internal Roundabout

7.7.2. The primary internal roundabout is a three-arm priority-controlled roundabout providing access to Zone C and parts of Zone A via the northern arm, the remainder of the development via the southern arm, and to the site access point at the M65 terminus roundabout via the eastern arm.

7.7.3. The ARCADY modelling results show that the junction operates well within capacity in both the 2037 AM peak and PM peak scenarios, with minimal queuing or delay.

7.7.4. It can be concluded that the primary internal roundabout will be able to accommodate the level of development forecast within the site.

Secondary Internal Roundabout

7.7.5. The secondary internal roundabout is a four-arm priority-controlled roundabout providing access to various parts of the development zones.

7.7.6. The ARCADY modelling results show that the junction operates well within capacity in both the 2037 AM peak and PM peak scenarios, with minimal queuing or delay.

7.7.7. It can be concluded that the secondary internal roundabout will be able to accommodate the level of development forecast within the site.

7.8 VISSIM MODELLING

7.8.1. As part of scoping discussions with LCC Highways, it was requested that microsimulation modelling would be carried out to assess the impact of the proposed development on the wider highway network.

7.8.2. The VISSIM model which supported the previous planning application has been obtained, and the demands in the model have been updated to reflect the below scenarios:

- **2037 Do-Minimum**: Base traffic uplifted to 2037 using adjusted TEMPro growth rates + Committed Developments, including flows associated with the consented Cuerden scheme.
- **2037 Do-Something**: Base traffic uplifted to 2037 using adjusted TEMPro growth rates + Committed Developments + proposed development flows (Zones A-E and Future Phase)

7.8.3. As both scenarios include development on the Lancashire Central land in the form of the consented scheme or the proposed scheme, the model used for both scenarios include the full range of mitigation proposed as part of the consented Cuerden development as well as the site access junctions.

7.8.4. The microsimulation modelling has been undertaken for the 2037 future year, as this presents the maximum traffic flow scenarios. Modelling of both the AM and PM peaks has been undertaken.

7.8.5. The VISSIM model report has been included in Appendix K. The microsimulation modelling shows that:

- The overall network performance improves in both peak periods for the Do-Something scenario (Proposed development) compared to the Do-Minimum scenario (Consented development), with

a reduction in average vehicle time, reduced delay per vehicle and increase average speeds on the modelled network.

- Journey time comparisons between the two scenarios also show quicker journey times on the majority of routes with the revised Lancashire central proposals compared to the consented scheme.
- The results show that there is an overall decrease in queue lengths in the Do-Something Scenario compared to the Do-Minimum scenario.

7.8.6. Overall, the VISSIM modelling has shown that the impact on the local highway network with the revised Lancashire central scheme is less than the impact of the consented scheme.

7.8.7. The results from the VISSIM modelling support the findings from the trip generation analysis and local junction modelling, showing that the impact of the revised Lancashire Central is less than the impact of the consented scheme.

CLICK HERE TO ENTER CHAPTER TITLE

8

SUMMARY

8 SUMMARY

8.1.1. WSP have been commissioned by Maple Grove Developments Ltd. and Lancashire County Council to prepare a Transport Assessment in support of an outline planning application for a mixed-use development at Lancashire Central, located in South Ribble, Lancashire.

8.1.2. The proposals include a mix of land uses including employment, retail, leisure, health and residential use, with associated parking, green infrastructure, internal highway layout and pedestrian and cycle infrastructure provision.

8.1.3. The development proposals accord with the national, regional and local transport policy of promoting sustainable development and facilitating means of travel by sustainable modes. The accompanying Travel Plan outlines measures to promotes the use of sustainable travel modes to future users of the site.

8.1.4. The site is proposed to be accessed via four vehicle access junctions including the revision of the existing M65 terminus roundabout, a signalised junction off Wigan Road, a signalised junction off Stanifield Lane and a priority junction providing access to a residential parcel off Stanifield Lane.

8.1.5. A previous application (South Ribble Planning Reference 07/2017/0211/ORM) for a mixed-use development on the site was approved in December 2017. This TA sets out a comparison between the approved planning application (07/2017/0211/ORM) and the revised proposals for Lancashire Central.

8.1.6. A trip generation exercise has been undertaken, comparing the trip generation associated with the proposed land uses and overall masterplan to the trip generation of the consented scheme. The results show that the proposed development generates fewer two-way vehicle trips than the consented scheme within the peak hour periods.

8.1.7. Junction capacity modelling and microsimulation modelling have also been undertaken to assess the impact of the proposed development on the local highway network and compare the impact of the proposed development to the impact of the consented development. The results show that overall, the proposed development will have a reduced impact on the local highway network compared to the consented scheme.

8.1.8. Overall, the impact of the proposed development on the local highway network is less than the previously consented development on the site.

8.1.9. Paragraph 111 of the NPPF 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 be severe'.*

8.1.10. As a result of the above assessment and conclusions, it has been demonstrated that the residual cumulative impacts of development are not severe and there are no overriding reasons to preclude LCC from recognising that the proposals are acceptable in transport terms.

Appendix A

TA SCOPING

Introduction

This note sets out the scope of the Transport Assessment report which will be produced to accompany a planning application for an industrial and logistics led, mixed-use development at Lancashire Central.

Site Location

The proposed site is located to the south of the settlements of Lostock Hall and Bamber Bridge in South Ribble. The site is bordered by Stanifield Lane on its western edge, the A582 and the M65 on its northern edge, the A49 Wigan Road on its eastern edge and open fields to the south. Figure 1 below shows the location of the site.

Figure 1 - Site Location Plan

Planning History

A previous application (South Ribble Planning Reference 07/2017/0211/ORM) for a mixed-use development on the site was submitted on 27th January 2017 and approved on 20th December 2017. The application was for the following development:

Hybrid planning application comprising of Full and Outline development - Environmental Impact Assessment (EIA) development. Part 1 FULL - Retail floorspace (Use Classes A1 & A3) and associated car parking, site access, highway works, drainage and strategic landscaping; Part 2 OUT - Employment floorspace (Classes B1, B2 & B8), hotel (Class C1), health and fitness and leisure (Class D2), creche/nursery (Class D1), retail (Classes A1, A2, A3, A4 & A5), car showrooms (Use Class Sui Generis), residential (Classes C2/C3) and provision of associated car parking, access, public open space, landscaping and drainage (Access applied for) and affecting the setting of a Listed Building.

The application was supported by a Transport Assessment produced in December 2016 and Transport Assessment Addendum submitted August 2017 by Mott MacDonald.

The site, previously referred to as the Cuerden Strategic Site, is identified within the South Ribble Borough Site Allocations and Development Plan Document as a key employment site. Policy C4 – Cuerden Strategic Site states the following:

'*Planning permission will be granted for development of the Cuerden Strategic Site subject to the submission of:*

- *an agreed Masterplan for the comprehensive development of the site, to include employment, commercial, industrial and Green Infrastructure uses;*
- *a phasing and infrastructure delivery schedule;*
- *an agreed programme of implementation in accordance with the Masterplan and agreed design code.*
- *Alternative uses may be appropriate where it can be demonstrated that they may help deliver the strategic employment aspirations for this site.'*

Development Proposals

A concept Development Plan for the site has been produced to support a planning application for an industrial and logistics led mixed-use development. The latest indicative concept Development Plan for the site is included in Appendix A. The Development Plan shows the site divided into different development areas: Development Phases A-D, a housing development parcel to the north west and two Future Phase development parcels to the far north east and to the southern portion of the site. The Transport Assessment relates to Phase A-D and the housing development plot, with the remaining plots marked as Future Phase development plots included within the assessment as committed developments, with their land uses based on the extant planning permission.

The indicative Development Plan shows that Phase A includes a range of provisional land uses including a Car Showroom, Health Centre, Gym/Creche, Food Store, Restaurant, two Drive-Thru units and two industrial warehousing units. Phase B proposes a further four industrial warehousing units, with associated office space. Phase C proposes 15 industrial units with associated office space, and Phase D includes a further six industrial units. The details within the Development Plan are indicative at this stage and will be reviewed and adapted as the development proposals progress.

The Transport Assessment will outline the revised plans for the site and review the highways and transport impacts associated with the proposed development.

Transport Assessment

The Transport Assessment will be a thorough document produced in line with guidance included in the Government's *'Transport evidence bases in plan making and decision taking'* comprising the following proposed chapters:

1. **Introduction:** Will set out the required background, scope and methodology information, as well as the document purpose.
2. **Existing Conditions:** This will include existing conditions for active travel, public transport, highway network and traffic congestion issues. It will include a road safety section, which will review local accident records within the local area over the previous five years and identification of any trends, with a description of how the development will mitigate against any road safety impacts. The scope of the study area for accident data will be as per the 2016 Mott MacDonald TA.

To establish the baseline traffic conditions, base year traffic flows will be taken from the 2017 Mott MacDonald TA Addendum which used traffic surveys from June 2016. These 2016 base year flows will be adjusted to provide 2021 base year flows as well as anticipated future year flows (based on assumed opening year TBC). The scope of the traffic flow diagrams (i.e. the local highway network) will be as per the 2017 Mott MacDonald TA Addendum.

3. **Proposed Development:** A description of the development, including on site highway design and layout, access and car parking.
4. **Policy Review:** This section will consist of a review of all relevant policy and description of how the development complies with national, regional and local policies.
5. **Trip Generation and Distribution:** This will be based on trip generation rates from the TRICS 7.8.2 database for the various land uses proposed at the site. The TRICS output reports for the various uses are provided in Appendix B. As per the Mott MacDonald TA Addendum, trip rates for Car Show Rooms within the Lancashire region initially provided by LCC Highways have been used to provide trip rates more specific to the location and access to the strategic road network at the site.

   The proposed development distribution will be taken from the agreed distribution within the Mott MacDonald TA Addendum (Proposed Development Distribution for Employment and Retail uses - Appendix B in TA Addendum).

   Peak hour trip generation

   Tables 6.1 - 6.6 below present a summary of the proposed trip rates and trip generation for the development site. This includes trip generation for AM (07:30-08:30) and PM (16:30-17:30) weekday peak as well as the weekend peak (13:00-14:00). The trip generation is outlined for the development proposals including Phase A (Warehousing/Retail/Health/Leisure/Food), Phase B (Warehousing), Phase C (Industrial Units), Phase D (Industrial Units) and the housing development. The future phase development flows have been taken from the previously committed development proposals and factored based on the updated remaining land area available for these plots.

   As per the 2017 TA Addendum, a PM only discount is applied to reflect a level of cross-visitation by employees of the industrial and warehousing units to the additional uses within the site. This picks up weekly or fortnightly trips by individuals working at the site to the retail or leisure land uses. The PM peak employment trips are discounted by 10% to account for this cross-visitation. The proposed Drive-Thru units will be linked to cross-visitation with the other uses on site. The Drive-Thru trips have been discounted by 30% in the AM and PM weekday peak and the weekend peak period.

Table 6.1: Development Phase A Trip Rates and Trip Generation – Total Vehicles

			AM (07:30-08:30)		PM (16:30-17:30)		Weekend (13:00-14:00)	
Land Use	**GFA (m^2)**	**Dir.**	**Trip Rates**	**Trip Gen**	**Trip Rates**	**Trip Gen**	**Trip Rates**	**Trip Gen**
Industrial Warehousing (Unit 8 and 9)	*4,645 & 5,574*	*Arrival* *Departure* *Two-way*	*0.176* *0.070* *0.246*	***18*** ***7*** ***25***	*0.052* *0.149* *0.201*	*5* *15* *21*	*0.000* *0.000* *0.000*	*0* *0* *0*
Offices (Unit 8 and 9)	*116 &139*	*Arrival* *Departure* *Two-way*	*0.350* *0.010* *0.360*	***1*** ***0*** ***1***	*0.019* *0.415* *0.434*	*0* *1* *1*	*0.000* *0.000* *0.000*	*0* *0* *0*
Warehousing and Office (10% PM Discount)		Arrival Departure Two-way	-	-	-	**5** **15** **19**	-	-
Car Supermarket	2,323	Arrival Departure Two-way	0.486 0.236 0.736	**11** **5** **17**	0.236 0.306 0.542	**5** **7** **13**	0.319 0.375 0.694	**7** **9** **16**
Health Centre	2,206	Arrival Departure Two-way	3.946 3.461 7.407	**87** **76** **163**	2.015 2.702 4.717	**44** **60** **104**	0.000 0.000 0.000	**0** **0** **0**
Gym / Creche	929	Arrival Departure Two-way	0.767 0.490 1.257	**7** **5** **12**	1.720 1.193 2.913	**16** **11** **27**	0.298 0.623 0.921	**3** **6** **9**
Food Store	1,765	Arrival Departure Two-way	2.558 1.892 4.450	**45** **33** **79**	4.139 3.947 8.086	**73** **70** **143**	6.213 6.316 12.529	**110** **111** **221**
Restaurant	186	Arrival Departure Two-way	0.000 0.000 0.000	**0** **0** **0**	1.936 0.690 2.626	**4** **1** **5**	2.706 2.588 5.294	**5** **5** **10**
Drive Thru (Unit 6 & 7)	*167 & 418*	*Arrival* *Departure* *Two-way*	*2.857* *2.993* *5.850*	*17* *18* *34*	*8.713* *7.822* *16.535*	*51* *46* *97*	*28.449* *30.934* *59.383*	*166* *181* *34*
Drive Thru (30% Discount)		Arrival Departure Two-way	-	**12** **12** **24**	-	**36** **32** **68**	-	**116** **127** **243**
Phase A Total	18,469	Arrival Departure Two-way	-	**181** **139** **321**	-	**183** **186** **364**	-	**241** **257** **499**

Table 6.2 Development Phase B Trip Rates and Trip Generation – Total Vehicles

			AM (07:30-08:30)		PM (16:30-17:30)		Weekend (13:00-14:00)	
Land Use	**GFA (m^2)**	**Dir.**	**Trip Rates**	**Trip Gen**	**Trip Rates**	**Trip Gen**	**Trip Rates**	**Trip Gen**
Industrial Warehousing (Unit 1-4)	54,016	Arrival Departure Two-way	0.176 0.070 0.246	**95** **38** **133**	0.052 0.149 0.201	28 80 109	0.000 0.000 0.000	0 0 0
Offices (Unit 1-4)	1,351	Arrival Departure Two-way	0.350 0.010 0.360	**5** **0** **5**	0.019 0.415 0.434	0 6 6	0.000 0.000 0.000	0 0 0
Warehousing and Office (10% PM Discount)		Arrival Departure Two-way	-	-	-	**26** **77** **103**	-	-
Phase B Total	55,367	Arrival Departure Two-way	-	**100** **38** **138**	-	**26** **77** **103**	-	0 0 0

Table 6.3: Development Phase C Trip Rates and Trip Generation – Total Vehicles

			AM (07:30-08:30)		PM (16:30-17:30)		Weekend (13:00-14:00)	
Land Use	**GFA (m^2)**	**Dir.**	**Trip Rates**	**Trip Gen**	**Trip Rates**	**Trip Gen**	**Trip Rates**	**Trip Gen**
Industrial Units (Unit 1-15)	10,743	Arrival Departure Two-way	0.328 0.051 0.379	**35** **5** **41**	0.045 0.272 0.317	5 29 34	0.000 0.000 0.000	0 0 0
Offices (Unit 1-15)	718	Arrival Departure Two-way	0.350 0.010 0.360	**3** **0** **3**	0.019 0.415 0.434	0 3 3	0.000 0.000 0.000	0 0 0
Industrial Unit and Office (10% PM Discount)		Arrival Departure Two-way	-	-	-	**4** **29** **33**	-	-
Phase C Total	11,461	Arrival Departure Two-way	-	**38** **6** **43**	-	**4** **29** **33**	-	0 0 0

Table 6.4: Development Phase D Trip Rates and Trip Generation – Total Vehicles

			AM (07:30-08:30)		PM (16:30-17:30)		Weekend (13:00-14:00)	
Land Use	**GFA (m^2)**	**Dir.**	**Trip Rates**	**Trip Gen**	**Trip Rates**	**Trip Gen**	**Trip Rates**	**Trip Gen**
Industrial Units (Unit 1-6)	26,942	Arrival Departure Two-way	0.328 0.051 0.379	**88** **14** **102**	0.045 0.272 0.317	12 73 85	0.000 0.000 0.000	0 0 0
Offices (Unit 1-6)	674	Arrival Departure Two-way	0.350 0.010 0.360	**2** **0** **2**	0.019 0.415 0.434	0 3 3	0.000 0.000 0.000	0 0 0
Industrial Unit and Office (10% PM Discount)		Arrival Departure Two-way	-	-	-	**11** **68** **79**	-	-
Phase D Total	27,615	Arrival Departure Two-way	-	**91** **14** **105**	-	**11** **68** **79**	-	0 0 0

Table 6.5: Housing Development Trip Rates and Trip Generation – Total Vehicles

			AM (07:30-08:30)		PM (16:30-17:30)		Weekend (13:00-14:00)	
Land Use	**No. of Dwellings**	**Dir.**	**Trip Rates**	**Trip Gen**	**Trip Rates**	**Trip Gen**	**Trip Rates**	**Trip Gen**
Residential	Up to 100 units	Arrival Departure Two-way	0.130 0.370 0.510	**13** **37** **51**	0.310 0.180 0.500	**31** **18** **50**	0.200 0.160 0.360	**20** **16** **36**

Table 6.6: Future Phases Development Parcels Trip Rates and Trip Generation – Total Vehicles

			AM (07:30-08:30)		PM (16:30-17:30)		Weekend (13:00-14:00)	
Land Use	**Development Quantum**	**Dir.**	**Trip Rates**	**Trip Gen**	**Trip Rates**	**Trip Gen**	**Trip Rates**	**Trip Gen**
Residential (Extra Care)	Up to 90 units	Arrival Departure Two-way	As per consented	6 17 23	As per consented	14 8 23	As per consented	9 7 16
Southern Employment Land (exc. Phase D)	52,385	Arrival Departure Two-way	As per consented	347 127 473	As per consented	99 264 363	As per consented	86 50 136

Comparison to consented application

The trip generation of the proposed development (including the future development phases) has been compared to the trip generation from the consented application at the site. As shown in Table 6.7, the trip generation associated with the revised planning application for the site is notably lower than the previously accepted trip generation at the site. Two-way trip generation in the morning peak is c.160 vehicles fewer with the new proposals compared to the consented trip generation, in the weekday evening peak there are c.900 fewer two-way trips and in the weekend peak there are c.1,550 fewer trips than consented.

As the proposed trip generation is much lower than the consented trip generation the impact on the local highway network will be reduced. As the previous application was accepted, the reduced level of trip generation and its associated impacts on the highway network cannot be considered unacceptable.

Table 6.7: Total Consented and Proposed Development Trip Generation – Total Vehicles

		Weekday AM (07:30-08:30)			Weekday PM (16:30-17:30)			Weekend Peak (13:00-14:00)		
		Arrival	**Dep.**	**Total**	**Arrival**	**Dep.**	**Total**	**Arrival**	**Dep.**	**Total**
Consented Development	192,800 sqm & 210 resi.	967	350	1317	712	1217	1929	1138	1099	2237
Total Proposed + Future Phases Development	111,410 & c.100 resi + Future Phases	776	378	1154	368	650	1016	357	330	687
Net Trip Generation		**-191**	**+28**	**-163**	**-344**	**-567**	**-913**	**-781**	**-769**	**-1550**

The total vehicle trip generation for the proposed development for weekday and weekend 24-hour periods are provided in Table 6.8 below, calculated from TRICS outputs. The site wide HGV trip generation has also been provided in Table 6.9. The 24-hour total vehicle and HGV trip generation for the consented site and future phases have been calculated based on the information provided in the Mott MacDonald TA.

Table 6.8: 24-hour trip generation - Total Vehicles

	Weekday 24 hours			Weekend 24 hours		
	Arrival	**Dep.**	**Total**	**Arrival**	**Dep.**	**Total**
Consented Development	12,039	11,854	23,890	8,673	8,776	17,451
Total Proposed Development (+ Future Phases)	5,461	5,265	10,727	2,837	2,828	5,675
Net Trip Generation	**-6,578**	**-6,588**	**-13,163**	**-5,835**	**-59,38**	**-11,776**

Table 6.9: 24-hour HGV trip generation

	Weekday 24 hours			Weekend 24 hours		
	Arrival	**Dep.**	**Total**	**Arrival**	**Dep.**	**Total**
Consented Development	305	363	668	43	44	87
Total Proposed Development (+ Future Phases)	524	642	1166	7	7	14
Net Trip Generation	**219**	**279**	**499**	**-36**	**-37**	**-73**

Table 6.8 shows that the 24-hour total vehicle trip generation of the proposed development is significantly lower than the trip generation for the consented development, with the proposed development trip generation c.45% of the consented level on weekdays and c.33% of the consented level on weekends. Table 6.9 shows that the proposals have a higher level of HGV trip generation than the consented developments on weekdays.

TEMPro adjusted growth rates

Traffic flows will be factored using TEMPro 7.2 for the whole of South Ribble area for car drivers only. The 2016 flows will be factored to 2021 to create the base year flows. Growth rates to the proposed TBC opening year will be used to forecast proposed future year scenario flows. As per the Mott MacDonald TA, the growth rates will be adjusted to take into account committed developments to avoid double counting of predicted housing and employment growth in the region.

The level of household and job growth associated with developments within South Ribble between 2016 and 2021 are outlined in Table 6.10 below.

Table 6.10: Jobs and Household Assumptions (TEMPro 7.2: South Ribble)

	2016 – 2021					
	TEMPro Development Growth		**Committed development Assumptions**		**Difference (TEMPro – Committed developments)**	
	Household	Jobs	Household	Jobs	Household	Jobs
South Ribble	1910	464	834	-	1076	464

Committed Developments

Local developments with planning approval, as used in the previous Mott MacDonald TA for the application site, are listed in Table 6.11 below. The application at Leyland Test Track and at Land west of Lancashire Business Park are also listed as a committed development, approved in November 2019 and May 2021 respectively. The level of build out on site by 2021 for sites within South Ribble has been provided by LCC and for sites in Chorley information from the planning portal has been used. The Mott MacDonald TA Addendum provided an assumed level of build out at the committed development sites for the years 2016, 2019 and 2024. The updated level of build out will be compared to the assumptions from the Mott MacDonald TA Addendum.

Table 6.11: Committed Developments

Site	Development Proposals	Status	Assumed Build out by 2021	Traffic flows
Leyland Test Track 07/2017/3361/ORM	950 dwellings, employment use	Approved Nov 2019	0	Traffic Flow Figures not available on planning portal or in TA appendix
Land west of Lancashire Business Park 07/2020/00781/OUT	Up to 612,500 sqft of B2 and B8	Approved May 2021	0	Traffic flows in TA
Former New Mill Site Land off Wesley St, Bamber Bridge 07/2012/0728/OUT	200 dwellings	Approved Aug 2013, partially built out	103*	TS Figure 11 – Traffic flows at A6 Wigan Rd junction
Land Formerly Gas Works, Leyland Rd, Lostock Hall 07/2013/0008/ORM	281 dwellings	Approved April 2014, partially built out	71*	No traffic flows provided in TA
Vernon Carus, Penwortham 07/2014/0190/ORM	385 dwellings	Approved Dec 2015, No build out	0*	No traffic flows on planning portal
Land to the rear of 2 Leyland Lane 454 Croston Road 07/2012/0627/ORM	175 dwellings	Approved Aug 2013, partially built out	24*	Tech Note includes flows for Flensburg Way/ Crostons Rd
Land off Croston Road 07/2014/0184/ORM	400 dwellings	Approved Mar 2016, No build out	0*	Appendix G – traffic flows
North of Altcar Lane 07/2016/0310/OUT	200 dwellings	Approved Feb 2017, partially built out	92*	Appendix H development trips (Leyland Lane Schieswig Way area)
Land Near Shaw Road Brook Rd, Altcar Lane 07/2016/0591/OUT	400 dwellings	Approved Sept 2017, partial built out	32	Development trips (Leyland Lane Schieswig Way area)
Land south of Cuerden Farm and	300 dwellings	Approved July 2011, fully built out	300	Appendix H of TA

Woodcocks Farm 10/00414/OUTMAJ				
Land north of Lancaster Lane 12/00941/OUTMAJ	160 dwellings	Approved October 2012, fully built out	160	Appendix 9 of TA
Land Adjoining Cuerden Residential Park 12/00872/FULMAJ	52 dwellings	Approved Aug 2013, fully built out	52	Fully built out

**Level of build out on site by March 2021 (Data source: SRBC and Chorley Planning Portal)*

The traffic flows associated with the Leyland Test Track application and the Land west of Lancashire Business Park will be taken from the traffic flow diagrams provided in the Lancashire Business Park Transport Assessment.

As stated in the previous Mott Macdonald TA Addendum, a search of the Transport Assessments for the remaining sites listed in the Table 6.11 above found that development traffic flow data was not always available or was inconsistent, and the status of the various schemes not readily available. The TA Addendum therefore assumed a build out of 25 units per year and used trip rates from the Croston Road site. The TA Addendum states that a distribution matrix was estimated using available data or assumed based on with accordance with location and distance from the study network. The distributions and resultant committed development are provided in Appendix B of the TA Addendum and will be used, along with the flows from the Lancashire Business Park TA to establish committed development flows.

Expected Developments

As requested by LCC, a sensitivity test will be carried out which takes into account expected developments within the local area. These are developments for which applications have been submitted but are yet to be decided upon. This includes the application at Pickerings Farm as well as the application for the dualling of the A582. As outlined in the A582 Traffic Forecasting Report, the development of the Pickerings Farm is considered to be dependent on the A582 scheme.

The details of these expected development sites are provided in Table 6.12 below. Traffic flows associated with the sites are not found to be available within documents provided supporting the planning application, therefore traffic flows for these sites as presented in the recently approved Lancashire Business Park TA will be used. A future year sensitivity test scenario will be carried out including these developments.

Table 6.12: Expected Developments

Site	Development Proposals	Status
Pickerings Farm 07/2021/00886/ORM	1,100 dwellings and local centre (Local Plan up to 1350 dwellings)	Application submitted August 2021
A582 Dualling LCC/2020/0014	Dualling of A582	Application submitted Feb 2020

6. **Active Travel and Sustainable Transport Strategy:** This chapter will include a description and assessment of existing and proposed provision for pedestrians, cyclists and public transport. There will also be an

assessment of opportunities for travel to the site on foot, by cycle or public transport, and a description of how the development will enhance the provision for travel by these modes. We will produce annotated site context plans in recognition of the above.

7. **Servicing and Refuse Strategy:** This chapter will include the quantum and types of servicing and refuse vehicles likely to access the site and include swept path drawings showing how these vehicles will be able to access/egress the site

8. **Traffic Capacity Assessment:** As per the previous TA for the site the following junctions would be assessed using junction modelling software:

    - J1 Stanifield Lane / Lostock Lane / Watkin Lane (Linsig)
    - J2 A6 / A582 Bamber Bridge 'Sainsbury's Roundabout' (Linsig)
    - J3 A6 / Cuerden Way (Linsig)
    - J4 B6258 / A48 / A6 (Linsig)
    - J5 A6 / M6 (ARCADY)
    - J7 A5083 / Wigan Road (Linsig)
    - J8 M56 / M6 (Linsig)
    - J10 M65 Terminus (Linsig (with development))
    - J13 Leyland Way / Lancaster Ln / A49 (Linsig)
    - Stanifield Lane Site Access (PICADY)

Model files from the previous application will be requested for use. If unavailable, the model outputs presented in the Mott MacDonald Transport Assessment, along with traffic signal controller and junction layout information will be used to replicate the modelling previously undertaken.

The following scenarios are to be tested:

- Base: 2021 Base Year Traffic Flows
- DM: Future Year + Committed Developments - Without Development
- DS: Future Year + Committed Developments - With Development
- DM Sensitivity Test: Future Year + Committed and Expected Developments – Without Development
- DS Sensitivity Test: Future Year + Committed and Expected Developments – With Development

It is not considered that any microsimulation modelling is required to support the TA for this application. Given that the proposed level of development traffic in all peak hours and in the 24 hour period is much lower than the previous application it would not generate any significant impact on the wider local road network and the impact compared to the consented application would be significantly reduced. As the proposed development has a significantly reduced trip generation compared to the consented proposals, the impacts on the wider network will be reduced and the previous VISSIM modelling already provides an analysis of the worst-case impacts from this development site based on microsimulation modelling.

Notwithstanding this significant reduction in impact, we will undertake a local junction assessment (Arcady/Picady/Linsig) of the same geographic scope as the 2017 TA, to allow the impact of the development to be assessed at all these junctions. Given that the important factor within this modelling is the relative impact of the consented scheme versus the newly proposed scheme, we consider that microsimulation modelling would not add to the existing understanding of the operation of the local or strategic highway network and would therefore be superfluous for this application. This is particularly the case given the LCC highways confirmation received at our recent meeting that the previous traffic surveys should continue to be used for this TA.

The previous TA used a VISSIM model to validate the individual junction models (LinSig / Junctions 9) which provided information on the wider network performance. We understand that the purposes of this was primarily to validate the individual junction models, and that the individual junction models therefore accurately reflect the junction performance. This TA will use these previously validated LinSig and Junctions models, therefore benefiting from having previously been informed by the microsimulation modelling.

Taking the above into account, we consider that microsimulation modelling is not required for this TA, and we would welcome confirmation of this from LCC highways and National Highways on this particular point, in order to avoid abortive work and potential delays to the application.

9. **Summary:** This final chapter will summarise the key points of the Transport Assessment.

Travel Plan

This would be a stand-alone document setting out measures to encourage sustainable (i.e. non-car) travel to the development by employees and visitors. It will form a framework of potential measures, covering all land uses on the development. A Full Travel Plan would be produced at the time of occupation, based upon the measures within this framework.

Appendix A: Proposed Site Development Plan

Accommodation Schedule

Phase A

	Plot Ref	Plot Size Acres	Ground Floor Sqm	Ground Floor Sqft	First Floor (2.5%) Sqm	First Floor (2.5%) Sqft	Total Sqm	Total Sqft
Unit 1 Co-Supermarket	Plot 1	3.007	2,323	25,000			2,323	25,000
Unit 2 Health Centre	Plot 2	1.431	1,254	13,500	982	10,250	2,236	23,750
Unit 3 Gym / Creche	Plot 3	1.225	929	10,000			929	10,000
Unit 4 Food Store	Plot 4	2.886	1,765	19,000			1,765	19,000
Unit 5 F&B	Plot 4		186	2,000			186	2,000
Unit 6 Drive Thru	Plot 4		167	1,800			167	1,800
Unit 7 Drive Thru	Plot 5	2.25	418	4,500			418	4,500
Unit 8	Plot 6	3.16	4,545	50,000	116	1,250	4,781	51,250
Unit 9	Plot 7	3.51	5,674	60,000	139	1,500	5,713	61,500
Total Areas		17.28	17,261	185,800	1,236	13,000	18,148	198,800

Phase B

	Plot Ref	Plot Size Acres	Ground Floor Sqm	Ground Floor Sqft	First Floor (2.5%) Sqm	First Floor (2.5%) Sqft	Total Sqm	Total Sqft
Unit 1	Plot 8	8.56	16,258	175,000	406	4,375	16,664	179,375
Unit 2	Plot 9	14.58	28,486	306,430	712	7,961	29,180	314,091
Unit 3	Plot 10	3.60	6,603	70,000	165	1,750	6,768	71,750
Unit 4	Plot 11	2.48	2,787	30,000	70	750	2,857	30,750
Total Areas		29.41	54,015	581,430	1,350	14,836	55,367	596,966

Phase C

	Plot Ref	Plot Size Acres	Ground Floor Sqm	Ground Floor Sqft	First Floor (2.5%) Sqm	First Floor (2.5%) Sqft	Total Sqm	Total Sqft
Unit 1	Plot 12	1.64	2,787	30,000	70	750	2,857	30,750
Unit 2	Plot 13	1.10	1,810	17,333	40	433	1,851	17,766
					Trial Floor (10%)			
Unit 3	Plot 14	5.20	960	10,648	96	1,065	1,076	11,803
Unit 4	Plot 14		960	10,648	96	1,065	1,076	11,803
Unit 5	Plot 14		960	10,648	96	1,065	1,076	11,803
Unit 6	Plot 14		483	5,200	48	520	531	5,720
Unit 7	Plot 14		241	2,594	24	259	265	2,853
Unit 8	Plot 14		241	2,594	24	259	265	2,853
Unit 9	Plot 14		241	2,594	24	259	265	2,853
Unit 10	Plot 14		241	2,594	24	259	265	2,853
Unit 11	Plot 14		483	5,200	48	520	531	5,720
Unit 12	Plot 14		241	2,594	24	259	265	2,853
Unit 13	Plot 14		241	2,594	24	259	265	2,853
Unit 14	Plot 14		241	2,594	24	259	265	2,853
Unit 15	Plot 14		483	5,200	48	520	531	5,720
Total Areas		7.94	10,743	112,735	716	7,724	11,101	120,456

Phase D - LCC Southern Employment Land

	Plot Ref	Plot Size Acres	Ground Floor Sqm	Ground Floor Sqft	First Floor (2.5%) Sqm	First Floor (2.5%) Sqft	Total Sqm	Total Sqft
Unit 1	Plot 15	3.02	6,503	70,000	163	1,750	6,666	71,750
Unit 2	Plot 16	1.795	3,252	35,000	81	875	3,333	35,875
Unit 3	Plot 17	1.43	2,323	25,000	58	625	2,381	25,625
Unit 4	Plot 18	2.56	4,645	50,000	116	1,250	4,761	51,250
Unit 5	Plot 19	3.28	6,968	75,000	174	1,875	7,142	76,875
Unit 6	Plot 20	1.46	3,252	35,000	81	875	3,333	35,875
Total Areas		13.56	26,942	290,000	674	7,250	27,615	297,250
Overall Total Development Areas		68.22	109,052	1,169,963	2,717	26,349	111,410	1,196,314

Phase A

	Gross Area Ha	Gross Area Acres
Phase A - Development	7.25	17.94
Phase A - Green Infrastructure	3.64	9.49
Phase A - Highways Infrastructure	1.47	3.62
Phase A - Total	12.57	31.05

Phase B

	Gross Area Ha	Gross Area Acres
Phase B - Development	12.70	31.38
Phase B - Green Infrastructure	0.88	2.20
Phase B - Highways Infrastructure	0.80	1.47
Phase B - Total	14.18	56.06

Phase C

	Gross Area Ha	Gross Area Acres
Phase C - Development	3.08	7.62
Phase C - Green Infrastructure	1.74	4.29
Phase C - Highways Infrastructure	0.13	0.32
Phase C - Total	4.95	12.23

Phase D

	Gross Area Ha	Gross Area Acres
Phase D - Development	5.50	13.58
Phase D - Green Infrastructure	3.32	8.20
Phase D - Highways Infrastructure	1.71	4.23
Phase D - Total	10.53	26.02

Combined Area - Total	42.34	104.56
Housing Development Total	2.78	6.86
Future Development Total	15.83	39.38
Overall Site Area	60.92	150.51

FOR ILLUSTRATIVE PURPOSES ONLY

0 5 10 20 30 40 50 100 150

General Notes

All site dimensions shall be verified by the Contractor on site prior to commencing any works.

Do not scale from this drawing.

Only work to written dimensions.

PHASE A: DEVELOPMENT

PHASE A: GREEN INFRASTRUCTURE

PHASE A: HIGHWAY INFRASTRUCTURE

PHASE B: DEVELOPMENT

PHASE B: GREEN INFRASTRUCTURE

PHASE B: HIGHWAY INFRASTRUCTURE

PHASE C: DEVELOPMENT

PHASE C: HIGHWAY INFRASTRUCTURE

HOUSING DEVELOPMENT

SOUTHERN EMPLOYMENT LAND

P8 Phase C Total Area amended 03/09/2021
P7 Phase C Unit 15 added 31/08/2021
P6 Phase Areas, Green Infra-structure and Highways Infra-structure added 31/08/2021.
P5 Site areas, plot & unit references amended 31/08/2021.
P4 Site Areas Amended to show 2.5% Offices at First Floor 25/08/2021
P3 Site Areas Amended 23/08/2021
P2 Accommodation Schedule Amended 23/08/2021
Revision P1 Accommodation Schedule Added 18/08/2021

Scale 1:2000@A0
Status Sketch
Drawn by AGR
Date August 2021

Client
Maple Grove Developments

Project
Lancashire Central

Drawing Description
Sketch Development Plan
Gross Areas

Drawing No. 21017 / SEL SK03 Rev. P8

fletcher|rae
Architecture | Master Planning | Project Management
Hill Quays, 5 Jordan Street, Manchester, M15 4PY
t: +44 (0)161 242 1140
w: www.fletcher-rae.com
f: +44 (0)161 242 1141
e: info@fletcher-rae.com

Appendix B: TRICS Outputs

Calculation Reference: AUDIT-100323-210811-0811

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : F - WAREHOUSING (COMMERCIAL)
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	KC	KENT	1 days
03	SOUTH WEST		
	DV	DEVON	1 days
06	WEST MIDLANDS		
	WO	WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	WY	WEST YORKSHIRE	1 days
09	NORTH		
	TW	TYNE & WEAR	1 days

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

Primary Filtering 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: Gross floor area
Actual Range: 10446 to 50000 (units: sqm)
Range Selected by User: 10000 to 60066 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 14/10/20

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:

Wednesday	2 days
Thursday	1 days
Friday	2 days

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

Selected survey types:

Manual count	5 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:

Edge of Town	4
Free Standing (PPS6 Out of Town)	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:

Industrial Zone	4
Out of Town	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.

Secondary Filtering selection:

Use Class:

B8	5 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®.

Filter by Site Operations Breakdown:
All Surveys Included

Population within 500m Range:
All Surveys Included

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	1 days
15,001 to 20,000	2 days
20,001 to 25,000	1 days

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

Population within 5 miles:

100,001 to 125,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	4 days
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	5 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.

PTAL Rating:

No PTAL Present	5 days

This data displays the number of selected surveys with PTAL Ratings.

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

LIST OF SITES relevant to selection parameters

1 DV-02-F-02 LIDL DISTRIBUTION CENTRE DEVON
CHILLPARK BRAKE
NEAR EXETER
CLYST HONITON
Free Standing (PPS6 Out of Town)
Out of Town
Total Gross floor area: 50000 sqm
Survey date: WEDNESDAY 03/04/19 Survey Type: MANUAL

2 KC-02-F-02 COMMERCIAL WAREHOUSING KENT
MILLS ROAD
AYLESFORD
QUARRY WOOD
Edge of Town
Industrial Zone
Total Gross floor area: 11200 sqm
Survey date: FRIDAY 22/09/17 Survey Type: MANUAL

3 TW-02-F-01 ASDA DISTRIBUTION CENTRE TYNE & WEAR
MANDARIN WAY
WASHINGTON
PATTISON IND. ESTATE
Edge of Town
Industrial Zone
Total Gross floor area: 31000 sqm
Survey date: FRIDAY 13/11/15 Survey Type: MANUAL

4 WO-02-F-03 THERMOTECHNOLOGY WORCESTERSHIRE
COTSWOLD WAY
WORCESTER

Edge of Town
Industrial Zone
Total Gross floor area: 37530 sqm
Survey date: WEDNESDAY 14/10/20 Survey Type: MANUAL

5 WY-02-F-02 DISTRIBUTION COMPANY WEST YORKSHIRE
STAITHGATE LANE
BRADFORD
NEWHALL
Edge of Town
Industrial Zone
Total Gross floor area: 10446 sqm
Survey date: THURSDAY 14/03/19 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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	2	30223	0.026	2	30223	0.018	2	30223	0.044
05:30 - 06:00	2	30223	0.055	2	30223	0.028	2	30223	0.083
06:00 - 06:30	3	32659	0.049	3	32659	0.028	3	32659	0.077
06:30 - 07:00	3	32659	0.100	3	32659	0.016	3	32659	0.116
07:00 - 07:30	5	28035	0.088	5	28035	0.028	5	28035	0.116
07:30 - 08:00	5	28035	0.093	5	28035	0.031	5	28035	0.124
08:00 - 08:30	5	28035	0.083	5	28035	0.039	5	28035	0.122
08:30 - 09:00	5	28035	0.073	5	28035	0.034	5	28035	0.107
09:00 - 09:30	5	28035	0.062	5	28035	0.032	5	28035	0.094
09:30 - 10:00	5	28035	0.062	5	28035	0.034	5	28035	0.096
10:00 - 10:30	5	28035	0.039	5	28035	0.036	5	28035	0.075
10:30 - 11:00	5	28035	0.032	5	28035	0.029	5	28035	0.061
11:00 - 11:30	5	28035	0.034	5	28035	0.035	5	28035	0.069
11:30 - 12:00	5	28035	0.034	5	28035	0.037	5	28035	0.071
12:00 - 12:30	5	28035	0.034	5	28035	0.044	5	28035	0.078
12:30 - 13:00	5	28035	0.035	5	28035	0.042	5	28035	0.077
13:00 - 13:30	5	28035	0.048	5	28035	0.041	5	28035	0.089
13:30 - 14:00	5	28035	0.054	5	28035	0.056	5	28035	0.110
14:00 - 14:30	5	28035	0.034	5	28035	0.045	5	28035	0.079
14:30 - 15:00	5	28035	0.030	5	28035	0.037	5	28035	0.067
15:00 - 15:30	5	28035	0.033	5	28035	0.040	5	28035	0.073
15:30 - 16:00	5	28035	0.033	5	28035	0.036	5	28035	0.069
16:00 - 16:30	5	28035	0.038	5	28035	0.066	5	28035	0.104
16:30 - 17:00	5	28035	0.024	5	28035	0.068	5	28035	0.092
17:00 - 17:30	5	28035	0.028	5	28035	0.081	5	28035	0.109
17:30 - 18:00	5	28035	0.026	5	28035	0.067	5	28035	0.093
18:00 - 18:30	5	28035	0.011	5	28035	0.061	5	28035	0.072
18:30 - 19:00	5	28035	0.016	5	28035	0.049	5	28035	0.065
19:00 - 19:30	3	32659	0.015	3	32659	0.067	3	32659	0.082
19:30 - 20:00	3	32659	0.009	3	32659	0.055	3	32659	0.064
20:00 - 20:30	3	32659	0.006	3	32659	0.062	3	32659	0.068
20:30 - 21:00	3	32659	0.019	3	32659	0.023	3	32659	0.042
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			1.323			1.365			2.688

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:	10446 - 50000 (units: sqm)
Survey date date range:	01/01/13 - 14/10/20
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	2	30223	0.008	2	30223	0.012	2	30223	0.020
05:30 - 06:00	2	30223	0.018	2	30223	0.020	2	30223	0.038
06:00 - 06:30	3	32659	0.013	3	32659	0.015	3	32659	0.028
06:30 - 07:00	3	32659	0.017	3	32659	0.011	3	32659	0.028
07:00 - 07:30	5	28035	0.021	5	28035	0.016	5	28035	0.037
07:30 - 08:00	5	28035	0.014	5	28035	0.018	5	28035	0.032
08:00 - 08:30	5	28035	0.020	5	28035	0.021	5	28035	0.041
08:30 - 09:00	5	28035	0.020	5	28035	0.023	5	28035	0.043
09:00 - 09:30	5	28035	0.023	5	28035	0.016	5	28035	0.039
09:30 - 10:00	5	28035	0.023	5	28035	0.018	5	28035	0.041
10:00 - 10:30	5	28035	0.020	5	28035	0.021	5	28035	0.041
10:30 - 11:00	5	28035	0.012	5	28035	0.014	5	28035	0.026
11:00 - 11:30	5	28035	0.016	5	28035	0.019	5	28035	0.035
11:30 - 12:00	5	28035	0.010	5	28035	0.016	5	28035	0.026
12:00 - 12:30	5	28035	0.016	5	28035	0.021	5	28035	0.037
12:30 - 13:00	5	28035	0.012	5	28035	0.016	5	28035	0.028
13:00 - 13:30	5	28035	0.009	5	28035	0.016	5	28035	0.025
13:30 - 14:00	5	28035	0.011	5	28035	0.018	5	28035	0.029
14:00 - 14:30	5	28035	0.009	5	28035	0.009	5	28035	0.018
14:30 - 15:00	5	28035	0.004	5	28035	0.012	5	28035	0.016
15:00 - 15:30	5	28035	0.011	5	28035	0.009	5	28035	0.020
15:30 - 16:00	5	28035	0.016	5	28035	0.011	5	28035	0.027
16:00 - 16:30	5	28035	0.017	5	28035	0.014	5	28035	0.031
16:30 - 17:00	5	28035	0.013	5	28035	0.011	5	28035	0.024
17:00 - 17:30	5	28035	0.018	5	28035	0.006	5	28035	0.024
17:30 - 18:00	5	28035	0.018	5	28035	0.012	5	28035	0.030
18:00 - 18:30	5	28035	0.006	5	28035	0.011	5	28035	0.017
18:30 - 19:00	5	28035	0.009	5	28035	0.004	5	28035	0.013
19:00 - 19:30	3	32659	0.003	3	32659	0.009	3	32659	0.012
19:30 - 20:00	3	32659	0.003	3	32659	0.002	3	32659	0.005
20:00 - 20:30	3	32659	0.005	3	32659	0.006	3	32659	0.011
20:30 - 21:00	3	32659	0.004	3	32659	0.003	3	32659	0.007
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.419			0.430			0.849

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.*

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
CARS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	2	30223	0.017	2	30223	0.005	2	30223	0.022
05:30 - 06:00	2	30223	0.035	2	30223	0.007	2	30223	0.042
06:00 - 06:30	3	32659	0.031	3	32659	0.009	3	32659	0.040
06:30 - 07:00	3	32659	0.078	3	32659	0.004	3	32659	0.082
07:00 - 07:30	5	28035	0.051	5	28035	0.004	5	28035	0.055
07:30 - 08:00	5	28035	0.068	5	28035	0.005	5	28035	0.073
08:00 - 08:30	5	28035	0.054	5	28035	0.006	5	28035	0.060
08:30 - 09:00	5	28035	0.046	5	28035	0.007	5	28035	0.053
09:00 - 09:30	5	28035	0.029	5	28035	0.011	5	28035	0.040
09:30 - 10:00	5	28035	0.028	5	28035	0.006	5	28035	0.034
10:00 - 10:30	5	28035	0.015	5	28035	0.011	5	28035	0.026
10:30 - 11:00	5	28035	0.013	5	28035	0.007	5	28035	0.020
11:00 - 11:30	5	28035	0.011	5	28035	0.007	5	28035	0.018
11:30 - 12:00	5	28035	0.012	5	28035	0.011	5	28035	0.023
12:00 - 12:30	5	28035	0.010	5	28035	0.017	5	28035	0.027
12:30 - 13:00	5	28035	0.015	5	28035	0.018	5	28035	0.033
13:00 - 13:30	5	28035	0.032	5	28035	0.016	5	28035	0.048
13:30 - 14:00	5	28035	0.034	5	28035	0.031	5	28035	0.065
14:00 - 14:30	5	28035	0.019	5	28035	0.025	5	28035	0.044
14:30 - 15:00	5	28035	0.021	5	28035	0.020	5	28035	0.041
15:00 - 15:30	5	28035	0.013	5	28035	0.022	5	28035	0.035
15:30 - 16:00	5	28035	0.013	5	28035	0.020	5	28035	0.033
16:00 - 16:30	5	28035	0.012	5	28035	0.043	5	28035	0.055
16:30 - 17:00	5	28035	0.011	5	28035	0.051	5	28035	0.062
17:00 - 17:30	5	28035	0.005	5	28035	0.065	5	28035	0.070
17:30 - 18:00	5	28035	0.005	5	28035	0.049	5	28035	0.054
18:00 - 18:30	5	28035	0.003	5	28035	0.048	5	28035	0.051
18:30 - 19:00	5	28035	0.007	5	28035	0.042	5	28035	0.049
19:00 - 19:30	3	32659	0.012	3	32659	0.057	3	32659	0.069
19:30 - 20:00	3	32659	0.005	3	32659	0.052	3	32659	0.057
20:00 - 20:30	3	32659	0.000	3	32659	0.056	3	32659	0.056
20:30 - 21:00	3	32659	0.013	3	32659	0.018	3	32659	0.031
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.718			0.750			1.468

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.*

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
LGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	2	30223	0.000	2	30223	0.002	2	30223	0.002
05:30 - 06:00	2	30223	0.002	2	30223	0.002	2	30223	0.004
06:00 - 06:30	3	32659	0.003	3	32659	0.001	3	32659	0.004
06:30 - 07:00	3	32659	0.003	3	32659	0.001	3	32659	0.004
07:00 - 07:30	5	28035	0.011	5	28035	0.006	5	28035	0.017
07:30 - 08:00	5	28035	0.009	5	28035	0.006	5	28035	0.015
08:00 - 08:30	5	28035	0.009	5	28035	0.010	5	28035	0.019
08:30 - 09:00	5	28035	0.007	5	28035	0.004	5	28035	0.011
09:00 - 09:30	5	28035	0.009	5	28035	0.004	5	28035	0.013
09:30 - 10:00	5	28035	0.011	5	28035	0.011	5	28035	0.022
10:00 - 10:30	5	28035	0.004	5	28035	0.004	5	28035	0.008
10:30 - 11:00	5	28035	0.007	5	28035	0.009	5	28035	0.016
11:00 - 11:30	5	28035	0.007	5	28035	0.009	5	28035	0.016
11:30 - 12:00	5	28035	0.011	5	28035	0.009	5	28035	0.020
12:00 - 12:30	5	28035	0.007	5	28035	0.006	5	28035	0.013
12:30 - 13:00	5	28035	0.006	5	28035	0.008	5	28035	0.014
13:00 - 13:30	5	28035	0.006	5	28035	0.008	5	28035	0.014
13:30 - 14:00	5	28035	0.007	5	28035	0.007	5	28035	0.014
14:00 - 14:30	5	28035	0.006	5	28035	0.011	5	28035	0.017
14:30 - 15:00	5	28035	0.005	5	28035	0.004	5	28035	0.009
15:00 - 15:30	5	28035	0.008	5	28035	0.008	5	28035	0.016
15:30 - 16:00	5	28035	0.004	5	28035	0.004	5	28035	0.008
16:00 - 16:30	5	28035	0.007	5	28035	0.008	5	28035	0.015
16:30 - 17:00	5	28035	0.001	5	28035	0.004	5	28035	0.005
17:00 - 17:30	5	28035	0.004	5	28035	0.008	5	28035	0.012
17:30 - 18:00	5	28035	0.001	5	28035	0.004	5	28035	0.005
18:00 - 18:30	5	28035	0.001	5	28035	0.002	5	28035	0.003
18:30 - 19:00	5	28035	0.001	5	28035	0.002	5	28035	0.003
19:00 - 19:30	3	32659	0.000	3	32659	0.001	3	32659	0.001
19:30 - 20:00	3	32659	0.001	3	32659	0.001	3	32659	0.002
20:00 - 20:30	3	32659	0.001	3	32659	0.000	3	32659	0.001
20:30 - 21:00	3	32659	0.002	3	32659	0.002	3	32659	0.004
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.161			0.166			0.327

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.*

Calculation Reference: AUDIT-100323-210811-0838

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : A - OFFICE
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	EX	ESSEX	1 days
06	WEST MIDLANDS		
	WO	WORCESTERSHIRE	1 days

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

Primary Filtering 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: Gross floor area
Actual Range: 22657 to 45000 (units: sqm)
Range Selected by User: 10000 to 50000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 13/11/18

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:

Wednesday	1 days
Friday	1 days

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

Selected survey types:

Manual count	2 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:

Town Centre	2

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:

Built-Up Zone	2

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.

Secondary Filtering selection:

Use Class:

Not Known	2 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®.

Filter by Site Operations Breakdown:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 500m Range:
All Surveys Included

Population within 1 mile:

25,001 to 50,000	1 days
50,001 to 100,000	1 days

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

Population within 5 miles:

100,001 to 125,000	1 days
125,001 to 250,000	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	2 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	2 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.

PTAL Rating:

No PTAL Present	2 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 EX-02-A-03 HMRC ESSEX
VICTORIA AVENUE
SOUTHEND-ON-SEA

Town Centre
Built-Up Zone
Total Gross floor area: 45000 sqm
Survey date: WEDNESDAY *23/10/13* *Survey Type: MANUAL*

2 WO-02-A-01 OFFICES WORCESTERSHIRE
ST MARY'S STREET
WORCESTER

Town Centre
Built-Up Zone
Total Gross floor area: 22657 sqm
Survey date: FRIDAY *23/05/14* *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 02 - EMPLOYMENT/A - OFFICE
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	2	33829	0.149	2	33829	0.004	2	33829	0.153
07:30 - 08:00	2	33829	0.177	2	33829	0.003	2	33829	0.180
08:00 - 08:30	2	33829	0.173	2	33829	0.007	2	33829	0.180
08:30 - 09:00	2	33829	0.177	2	33829	0.007	2	33829	0.184
09:00 - 09:30	2	33829	0.164	2	33829	0.010	2	33829	0.174
09:30 - 10:00	2	33829	0.090	2	33829	0.009	2	33829	0.099
10:00 - 10:30	2	33829	0.037	2	33829	0.004	2	33829	0.041
10:30 - 11:00	2	33829	0.024	2	33829	0.004	2	33829	0.028
11:00 - 11:30	2	33829	0.019	2	33829	0.001	2	33829	0.020
11:30 - 12:00	2	33829	0.012	2	33829	0.006	2	33829	0.018
12:00 - 12:30	2	33829	0.016	2	33829	0.009	2	33829	0.025
12:30 - 13:00	2	33829	0.021	2	33829	0.018	2	33829	0.039
13:00 - 13:30	2	33829	0.012	2	33829	0.016	2	33829	0.028
13:30 - 14:00	2	33829	0.010	2	33829	0.004	2	33829	0.014
14:00 - 14:30	2	33829	0.007	2	33829	0.003	2	33829	0.010
14:30 - 15:00	2	33829	0.006	2	33829	0.037	2	33829	0.043
15:00 - 15:30	2	33829	0.010	2	33829	0.096	2	33829	0.106
15:30 - 16:00	2	33829	0.024	2	33829	0.161	2	33829	0.185
16:00 - 16:30	2	33829	0.009	2	33829	0.161	2	33829	0.170
16:30 - 17:00	2	33829	0.010	2	33829	0.164	2	33829	0.174
17:00 - 17:30	2	33829	0.009	2	33829	0.251	2	33829	0.260
17:30 - 18:00	2	33829	0.004	2	33829	0.127	2	33829	0.131
18:00 - 18:30	2	33829	0.006	2	33829	0.041	2	33829	0.047
18:30 - 19:00	2	33829	0.027	2	33829	0.024	2	33829	0.051
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			1.193			1.167			2.360

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:	22657 - 45000 (units: sqm)
Survey date date range:	01/01/13 - 13/11/18
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	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.

Filtering Summary

Land Use	05/G	HEALTH/GP SURGERIES
Selected Trip Rate Calculation Parameter Range	143-1592 sqm GFA	
Actual Trip Rate Calculation Parameter Range	310-1400 sqm GFA	
Date Range	Minimum: 01/01/13	Maximum: 26/11/19
Parking Spaces Range	All Surveys Included	
Days of the week selected	Wednesday	7
	Thursday	1
	Friday	2
Main Location Types selected	Suburban Area (PPS6 Out of Centre)	5
	Edge of Town	5
Population within 500m	All Surveys Included	
Population <1 Mile ranges selected	5,001 to 10,000	1
	15,001 to 20,000	1
	20,001 to 25,000	3
	25,001 to 50,000	5
Population <5 Mile ranges selected	50,001 to 75,000	1
	125,001 to 250,000	2
	250,001 to 500,000	7
Car Ownership <5 Mile ranges selected	0.6 to 1.0	5
	1.1 to 1.5	5
PTAL Rating	No PTAL Present	10

Calculation Reference: AUDIT-100323-210909-0907

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 05 - HEALTH
Category : G - GP SURGERIES
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	HF	HERTFORDSHIRE	1 days
	IW	ISLE OF WIGHT	1 days
	SC	SURREY	1 days
03	SOUTH WEST		
	DV	DEVON	1 days
05	EAST MIDLANDS		
	DS	DERBYSHIRE	1 days
	LE	LEICESTERSHIRE	1 days
	NT	NOTTINGHAMSHIRE	1 days
10	WALES		
	CF	CARDIFF	3 days

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

Primary Filtering 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: Gross floor area
Actual Range: 310 to 1400 (units: sqm)
Range Selected by User: 143 to 1592 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 26/11/19

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:

Wednesday	7 days
Thursday	1 days
Friday	2 days

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

Selected survey types:

Manual count	10 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)	5
Edge of Town	5

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	9
No Sub Category	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.

Secondary Filtering selection:

Use Class:

E(e)	10 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®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000	1 days
15,001 to 20,000	1 days
20,001 to 25,000	3 days
25,001 to 50,000	5 days

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

Population within 5 miles:

50,001 to 75,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	7 days

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

Car ownership within 5 miles:

0.6 to 1.0	5 days
1.1 to 1.5	5 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:

Not Known	1 days
No	9 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.

PTAL Rating:

No PTAL Present	10 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 CF-05-G-01 GP SURGERY CARDIFF
CAMBRIDGE STREET
CARDIFF

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 1200 sqm
Survey date: FRIDAY *05/05/17* *Survey Type: MANUAL*

2 CF-05-G-02 GP SURGERY CARDIFF
PARK ROAD
CARDIFF
WHITCHURCH
Edge of Town
Residential Zone
Total Gross floor area: 450 sqm
Survey date: WEDNESDAY *05/10/16* *Survey Type: MANUAL*

3 CF-05-G-03 GP SURGERY CARDIFF
DARTINGTON DRIVE
CARDIFF
PONTPRENNAU
Edge of Town
Residential Zone
Total Gross floor area: 1243 sqm
Survey date: WEDNESDAY *14/03/18* *Survey Type: MANUAL*

4 DS-05-G-01 GP SURGERY DERBYSHIRE
OSMASTON ROAD
DERBY

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Gross floor area: 676 sqm
Survey date: WEDNESDAY *25/09/19* *Survey Type: MANUAL*

5 DV-05-G-01 GP SURGERY DEVON
MOUNT PLEASANT ROAD
EXETER

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 1319 sqm
Survey date: WEDNESDAY *03/04/19* *Survey Type: MANUAL*

6 HF-05-G-01 GP SURGERY HERTFORDSHIRE
CHELLS WAY
STEVENAGE

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 830 sqm
Survey date: FRIDAY *28/06/19* *Survey Type: MANUAL*

7 IW-05-G-01 GP SURGERY ISLE OF WIGHT
NEWPORT ROAD
COWES

Edge of Town
Residential Zone
Total Gross floor area: 1400 sqm
Survey date: WEDNESDAY *26/06/19* *Survey Type: MANUAL*

8 LE-05-G-01 GP SURGERY LEICESTERSHIRE
GLEN ROAD
LEICESTER
OADBY
Edge of Town
Residential Zone
Total Gross floor area: 550 sqm
Survey date: THURSDAY *30/10/14* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 NT-05-G-01 GP SURGERY NOTTINGHAMSHIRE
MANSFIELD ROAD
NOTTINGHAM

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 460 sqm
Survey date: WEDNESDAY *24/06/15* *Survey Type: MANUAL*

10 SC-05-G-02 GP SURGERY SURREY
ESHER GREEN DRIVE
ESHER
SANDOWN PARK
Edge of Town
Residential Zone
Total Gross floor area: 310 sqm
Survey date: WEDNESDAY *22/06/16* *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 05 - HEALTH/G - GP SURGERIES
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	830	1.325	1	830	0.000	1	830	1.325
07:00 - 08:00	9	886	1.228	9	886	0.338	9	886	1.566
08:00 - 09:00	10	844	3.698	10	844	1.944	10	844	5.642
09:00 - 10:00	10	844	3.946	10	844	3.461	10	844	7.407
10:00 - 11:00	10	844	3.555	10	844	3.378	10	844	6.933
11:00 - 12:00	10	844	2.726	10	844	3.200	10	844	5.926
12:00 - 13:00	10	844	2.347	10	844	2.619	10	844	4.966
13:00 - 14:00	10	844	2.086	10	844	2.323	10	844	4.409
14:00 - 15:00	10	844	2.951	10	844	2.631	10	844	5.582
15:00 - 16:00	10	844	2.619	10	844	2.832	10	844	5.451
16:00 - 17:00	10	844	2.015	10	844	2.702	10	844	4.717
17:00 - 18:00	10	844	1.446	10	844	2.335	10	844	3.781
18:00 - 19:00	10	844	0.664	10	844	1.304	10	844	1.968
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			30.606			29.067			59.673

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:	310 - 1400 (units: sqm)
Survey date date range:	01/01/13 - 26/11/19
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	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 05 - HEALTH/G - GP SURGERIES
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	830	0.000	1	830	0.000	1	830	0.000
07:00 - 08:00	9	886	0.013	9	886	0.013	9	886	0.026
08:00 - 09:00	10	844	0.012	10	844	0.012	10	844	0.024
09:00 - 10:00	10	844	0.000	10	844	0.000	10	844	0.000
10:00 - 11:00	10	844	0.000	10	844	0.000	10	844	0.000
11:00 - 12:00	10	844	0.000	10	844	0.000	10	844	0.000
12:00 - 13:00	10	844	0.000	10	844	0.000	10	844	0.000
13:00 - 14:00	10	844	0.000	10	844	0.000	10	844	0.000
14:00 - 15:00	10	844	0.000	10	844	0.000	10	844	0.000
15:00 - 16:00	10	844	0.000	10	844	0.000	10	844	0.000
16:00 - 17:00	10	844	0.000	10	844	0.000	10	844	0.000
17:00 - 18:00	10	844	0.000	10	844	0.000	10	844	0.000
18:00 - 19:00	10	844	0.000	10	844	0.000	10	844	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.025			0.025			0.050

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.*

TRIP RATE for Land Use 05 - HEALTH/G - GP SURGERIES
LGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	830	0.000	1	830	0.000	1	830	0.000
07:00 - 08:00	9	886	0.113	9	886	0.063	9	886	0.176
08:00 - 09:00	10	844	0.178	10	844	0.154	10	844	0.332
09:00 - 10:00	10	844	0.320	10	844	0.273	10	844	0.593
10:00 - 11:00	10	844	0.332	10	844	0.332	10	844	0.664
11:00 - 12:00	10	844	0.273	10	844	0.296	10	844	0.569
12:00 - 13:00	10	844	0.213	10	844	0.225	10	844	0.438
13:00 - 14:00	10	844	0.142	10	844	0.166	10	844	0.308
14:00 - 15:00	10	844	0.166	10	844	0.130	10	844	0.296
15:00 - 16:00	10	844	0.166	10	844	0.213	10	844	0.379
16:00 - 17:00	10	844	0.095	10	844	0.130	10	844	0.225
17:00 - 18:00	10	844	0.059	10	844	0.059	10	844	0.118
18:00 - 19:00	10	844	0.000	10	844	0.000	10	844	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.057			2.041			4.098

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.*

Calculation Reference: AUDIT-100323-210910-0956

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE
Category : K - FITNESS CLUB (PRIVATE)
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	ES	EAST SUSSEX	1 days
05	EAST MIDLANDS		
	NR	NORTHAMPTONSHIRE	1 days
06	WEST MIDLANDS		
	SH	SHROPSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NY	NORTH YORKSHIRE	1 days
09	NORTH		
	CB	CUMBRIA	1 days
	TW	TYNE & WEAR	1 days
10	WALES		
	PS	POWYS	1 days

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

Primary Filtering 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: Gross floor area
Actual Range: 404 to 4500 (units: sqm)
Range Selected by User: 404 to 5000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 14/03/19

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:

Monday	1 days
Tuesday	2 days
Wednesday	3 days
Thursday	1 days

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

Selected survey types:

Manual count	7 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)	2
Edge of Town	5

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:

Industrial Zone	1
Commercial Zone	1
Development Zone	1
Residential Zone	3
No Sub Category	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,

Secondary Filtering selection:

Use Class:

n/a	2 days
E(d)	5 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®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000	5 days
10,001 to 15,000	1 days
25,001 to 50,000	1 days

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

Population within 5 miles:

5,001 to 25,000	3 days
75,001 to 100,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	4 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	7 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.

PTAL Rating:

No PTAL Present	7 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 CB-07-K-01 FITNESS CLUB CUMBRIA
COWPER ROAD
PENRITH
GILWILLY IND. ESTATE
Edge of Town
Industrial Zone
Total Gross floor area: 650 sqm
Survey date: TUESDAY *10/06/14* *Survey Type: MANUAL*

2 ES-07-K-02 CORAL FITNESS EAST SUSSEX
ORCHARD ROAD
BRIGHTON
HOVE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 1600 sqm
Survey date: WEDNESDAY *27/09/17* *Survey Type: MANUAL*

3 NR-07-K-01 PUMP GYM NORTHAMPTONSHIRE
GLADSTONE ROAD
NORTHAMPTON
KINGSFIELD BUS. CENTRE
Edge of Town
Commercial Zone
Total Gross floor area: 1333 sqm
Survey date: WEDNESDAY *23/11/16* *Survey Type: MANUAL*

4 NY-07-K-01 FITNESS CLUB NORTH YORKSHIRE
RIVER VIEW ROAD
RIPON

Edge of Town
No Sub Category
Total Gross floor area: 404 sqm
Survey date: TUESDAY *27/09/16* *Survey Type: MANUAL*

5 PS-07-K-01 SPORTS CENTRE POWYS
BROOK STREET
WELSHPOOL

Edge of Town
Residential Zone
Total Gross floor area: 950 sqm
Survey date: MONDAY *11/05/15* *Survey Type: MANUAL*

6 SH-07-K-01 FITNESS, TENNIS & LEISURE SHROPSHIRE
SUNDORNE ROAD
SHREWSBURY

Edge of Town
Residential Zone
Total Gross floor area: 4500 sqm
Survey date: WEDNESDAY *21/05/14* *Survey Type: MANUAL*

7 TW-07-K-01 DW SPORTS FITNESS TYNE & WEAR
TIMBER BEACH ROAD
SUNDERLAND
CASTLETOWN
Suburban Area (PPS6 Out of Centre)
Development Zone
Total Gross floor area: 1380 sqm
Survey date: THURSDAY *06/04/17* *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 07 - LEISURE/K - FITNESS CLUB (PRIVATE)
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	7	1545	0.610	7	1545	0.046	7	1545	0.656
07:00 - 08:00	7	1545	0.471	7	1545	0.555	7	1545	1.026
08:00 - 09:00	7	1545	0.767	7	1545	0.490	7	1545	1.257
09:00 - 10:00	7	1545	1.461	7	1545	0.527	7	1545	1.988
10:00 - 11:00	7	1545	0.887	7	1545	0.804	7	1545	1.691
11:00 - 12:00	7	1545	0.481	7	1545	0.961	7	1545	1.442
12:00 - 13:00	7	1545	0.555	7	1545	0.666	7	1545	1.221
13:00 - 14:00	7	1545	0.601	7	1545	0.656	7	1545	1.257
14:00 - 15:00	7	1545	0.730	7	1545	0.573	7	1545	1.303
15:00 - 16:00	7	1545	1.082	7	1545	0.989	7	1545	2.071
16:00 - 17:00	7	1545	1.211	7	1545	1.128	7	1545	2.339
17:00 - 18:00	7	1545	1.720	7	1545	1.193	7	1545	2.913
18:00 - 19:00	7	1545	1.322	7	1545	1.433	7	1545	2.755
19:00 - 20:00	7	1545	0.703	7	1545	1.488	7	1545	2.191
20:00 - 21:00	7	1545	0.296	7	1545	0.795	7	1545	1.091
21:00 - 22:00	7	1545	0.083	7	1545	0.481	7	1545	0.564
22:00 - 23:00	2	1002	0.050	2	1002	0.200	2	1002	0.250
23:00 - 24:00									
Total Rates:			13.030			12.985			26.015

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:	404 - 4500 (units: sqm)
Survey date date range:	01/01/13 - 14/03/19
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	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 07 - LEISURE/K - FITNESS CLUB (PRIVATE)
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	7	1545	0.000	7	1545	0.000	7	1545	0.000
07:00 - 08:00	7	1545	0.000	7	1545	0.000	7	1545	0.000
08:00 - 09:00	7	1545	0.000	7	1545	0.000	7	1545	0.000
09:00 - 10:00	7	1545	0.009	7	1545	0.000	7	1545	0.009
10:00 - 11:00	7	1545	0.000	7	1545	0.000	7	1545	0.000
11:00 - 12:00	7	1545	0.000	7	1545	0.000	7	1545	0.000
12:00 - 13:00	7	1545	0.000	7	1545	0.000	7	1545	0.000
13:00 - 14:00	7	1545	0.009	7	1545	0.000	7	1545	0.009
14:00 - 15:00	7	1545	0.000	7	1545	0.009	7	1545	0.009
15:00 - 16:00	7	1545	0.000	7	1545	0.009	7	1545	0.009
16:00 - 17:00	7	1545	0.000	7	1545	0.000	7	1545	0.000
17:00 - 18:00	7	1545	0.000	7	1545	0.000	7	1545	0.000
18:00 - 19:00	7	1545	0.000	7	1545	0.000	7	1545	0.000
19:00 - 20:00	7	1545	0.000	7	1545	0.000	7	1545	0.000
20:00 - 21:00	7	1545	0.000	7	1545	0.000	7	1545	0.000
21:00 - 22:00	7	1545	0.000	7	1545	0.000	7	1545	0.000
22:00 - 23:00	2	1002	0.000	2	1002	0.000	2	1002	0.000
23:00 - 24:00									
Total Rates:			0.018			0.018			0.036

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.*

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)
LGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	7	1545	0.037	7	1545	0.009	7	1545	0.046
07:00 - 08:00	7	1545	0.037	7	1545	0.037	7	1545	0.074
08:00 - 09:00	7	1545	0.055	7	1545	0.009	7	1545	0.064
09:00 - 10:00	7	1545	0.055	7	1545	0.018	7	1545	0.073
10:00 - 11:00	7	1545	0.037	7	1545	0.028	7	1545	0.065
11:00 - 12:00	7	1545	0.028	7	1545	0.065	7	1545	0.093
12:00 - 13:00	7	1545	0.037	7	1545	0.046	7	1545	0.083
13:00 - 14:00	7	1545	0.028	7	1545	0.037	7	1545	0.065
14:00 - 15:00	7	1545	0.065	7	1545	0.028	7	1545	0.093
15:00 - 16:00	7	1545	0.083	7	1545	0.046	7	1545	0.129
16:00 - 17:00	7	1545	0.028	7	1545	0.102	7	1545	0.130
17:00 - 18:00	7	1545	0.065	7	1545	0.037	7	1545	0.102
18:00 - 19:00	7	1545	0.028	7	1545	0.046	7	1545	0.074
19:00 - 20:00	7	1545	0.018	7	1545	0.028	7	1545	0.046
20:00 - 21:00	7	1545	0.000	7	1545	0.046	7	1545	0.046
21:00 - 22:00	7	1545	0.000	7	1545	0.018	7	1545	0.018
22:00 - 23:00	2	1002	0.000	2	1002	0.050	2	1002	0.050
23:00 - 24:00									
Total Rates:			0.601			0.650			1.251

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.*

Calculation Reference: AUDIT-100323-210910-0909

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE
Category : K - FITNESS CLUB (PRIVATE)
TOTAL VEHICLES

Selected regions and areas:
11 SCOTLAND
EB CITY OF EDINBURGH 1 days

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

Primary Filtering 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: Gross floor area
Actual Range: 11400 to 11400 (units: sqm)
Range Selected by User: 404 to 15000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 14/03/19

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:
Saturday 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:
Edge of Town 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.

Secondary Filtering selection:

Use Class:
n/a 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®.

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:
20,001 to 25,000 1 days

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

Population within 5 miles:
250,001 to 500,000 1 days

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

Car ownership within 5 miles:
0.6 to 1.0 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.

PTAL Rating:
No PTAL Present 1 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 EB-07-K-01 DAVID LLOYD CLUB CITY OF EDINBURGH
GLASGOW ROAD
EDINBURGH
GYLE
Edge of Town
Residential Zone
Total Gross floor area: 11400 sqm
Survey date: SATURDAY *19/03/16* *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 07 - LEISURE/K - FITNESS CLUB (PRIVATE)
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	11400	0.053	1	11400	0.000	1	11400	0.053
07:00 - 08:00	1	11400	0.491	1	11400	0.035	1	11400	0.526
08:00 - 09:00	1	11400	0.868	1	11400	0.272	1	11400	1.140
09:00 - 10:00	1	11400	1.140	1	11400	0.386	1	11400	1.526
10:00 - 11:00	1	11400	0.895	1	11400	0.763	1	11400	1.658
11:00 - 12:00	1	11400	0.474	1	11400	1.070	1	11400	1.544
12:00 - 13:00	1	11400	0.404	1	11400	0.851	1	11400	1.255
13:00 - 14:00	1	11400	0.298	1	11400	0.623	1	11400	0.921
14:00 - 15:00	1	11400	0.325	1	11400	0.307	1	11400	0.632
15:00 - 16:00	1	11400	0.342	1	11400	0.254	1	11400	0.596
16:00 - 17:00	1	11400	0.325	1	11400	0.351	1	11400	0.676
17:00 - 18:00	1	11400	0.184	1	11400	0.395	1	11400	0.579
18:00 - 19:00	1	11400	0.105	1	11400	0.377	1	11400	0.482
19:00 - 20:00	1	11400	0.114	1	11400	0.184	1	11400	0.298
20:00 - 21:00	1	11400	0.009	1	11400	0.132	1	11400	0.141
21:00 - 22:00	1	11400	0.000	1	11400	0.018	1	11400	0.018
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			6.027			6.018			12.045

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:	11400 - 11400 (units: sqm)
Survey date date range:	01/01/13 - 14/03/19
Number of weekdays (Monday-Friday):	0
Number of Saturdays:	1
Number of Sundays:	0
Surveys automatically removed from selection:	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 07 - LEISURE/K - FITNESS CLUB (PRIVATE)
LGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	11400	0.000	1	11400	0.000	1	11400	0.000
07:00 - 08:00	1	11400	0.009	1	11400	0.000	1	11400	0.009
08:00 - 09:00	1	11400	0.026	1	11400	0.009	1	11400	0.035
09:00 - 10:00	1	11400	0.009	1	11400	0.000	1	11400	0.009
10:00 - 11:00	1	11400	0.018	1	11400	0.018	1	11400	0.036
11:00 - 12:00	1	11400	0.000	1	11400	0.009	1	11400	0.009
12:00 - 13:00	1	11400	0.009	1	11400	0.018	1	11400	0.027
13:00 - 14:00	1	11400	0.009	1	11400	0.018	1	11400	0.027
14:00 - 15:00	1	11400	0.000	1	11400	0.009	1	11400	0.009
15:00 - 16:00	1	11400	0.009	1	11400	0.000	1	11400	0.009
16:00 - 17:00	1	11400	0.009	1	11400	0.009	1	11400	0.018
17:00 - 18:00	1	11400	0.000	1	11400	0.009	1	11400	0.009
18:00 - 19:00	1	11400	0.009	1	11400	0.000	1	11400	0.009
19:00 - 20:00	1	11400	0.000	1	11400	0.009	1	11400	0.009
20:00 - 21:00	1	11400	0.009	1	11400	0.009	1	11400	0.018
21:00 - 22:00	1	11400	0.000	1	11400	0.000	1	11400	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.116			0.117			0.233

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.*

Calculation Reference: AUDIT-100323-210910-0914

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
Category : C - DISCOUNT FOOD STORES
TOTAL VEHICLES

Selected regions and areas:

03	SOUTH WEST		
	SM	SOMERSET	1 days
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
05	EAST MIDLANDS		
	NT	NOTTINGHAMSHIRE	1 days
06	WEST MIDLANDS		
	WO	WORCESTERSHIRE	1 days
09	NORTH		
	DH	DURHAM	1 days
10	WALES		
	CF	CARDIFF	1 days
11	SCOTLAND		
	AD	ABERDEEN CITY	1 days

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

Primary Filtering 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: Gross floor area
Actual Range: 1023 to 2568 (units: sqm)
Range Selected by User: 700 to 2703 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 28/11/20

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:

Monday	1 days
Wednesday	1 days
Thursday	3 days
Friday	2 days

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

Selected survey types:

Manual count	7 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)	2
Edge of Town	5

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:

Industrial Zone	2
Development Zone	1
Retail Zone	3
No Sub Category	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,

Secondary Filtering selection:

Use Class:

E(a)	7 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®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	3 days
20,001 to 25,000	1 days
25,001 to 50,000	1 days
50,001 to 100,000	1 days

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

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	1 days
125,001 to 250,000	1 days
250,001 to 500,000	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	5 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.

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	7 days

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

Not Known	1 days
Yes	1 days
No	5 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.

PTAL Rating:

No PTAL Present	7 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 AD-01-C-01 LIDL ABERDEEN CITY
GREENWELL ROAD
ABERDEEN
EAST TULLOS IND. ESTATE
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 1950 sqm
Survey date: MONDAY *18/11/19* *Survey Type: MANUAL*

2 CA-01-C-01 LIDL CAMBRIDGESHIRE
CROMWELL ROAD
WISBECH

Edge of Town
Retail Zone
Total Gross floor area: 1466 sqm
Survey date: FRIDAY *21/10/16* *Survey Type: MANUAL*

3 CF-01-C-01 LIDL CARDIFF
EAST TYNDALL STREET
CARDIFF

Suburban Area (PPS6 Out of Centre)
Development Zone
Total Gross floor area: 2568 sqm
Survey date: THURSDAY *29/06/17* *Survey Type: MANUAL*

4 DH-01-C-01 ALDI DURHAM
WATLING ROAD
BISHOP AUCKLAND

Edge of Town
Retail Zone
Total Gross floor area: 1023 sqm
Survey date: THURSDAY *06/04/17* *Survey Type: MANUAL*

5 NT-01-C-01 LIDL NOTTINGHAMSHIRE
CHAPEL LANE
BINGHAM

Edge of Town
Industrial Zone
Total Gross floor area: 2440 sqm
Survey date: FRIDAY *15/07/16* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

6 SM-01-C-01 LIDL SOMERSET
SEAWARD WAY
MINEHEAD

Edge of Town
No Sub Category
Total Gross floor area: 2247 sqm
Survey date: THURSDAY *22/06/17* *Survey Type: MANUAL*

7 WO-01-C-01 LIDL WORCESTERSHIRE
BLACKPOLE ROAD
WORCESTER
BRICKFIELDS
Edge of Town
Retail Zone
Total Gross floor area: 2417 sqm
Survey date: WEDNESDAY *13/07/16* *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.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
WS-01-C-01	during covid
WS-01-C-02	during covid

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	7	2016	0.326	7	2016	0.099	7	2016	0.425
08:00 - 09:00	7	2016	2.558	7	2016	1.892	7	2016	4.450
09:00 - 10:00	7	2016	3.196	7	2016	2.650	7	2016	5.846
10:00 - 11:00	7	2016	3.558	7	2016	3.572	7	2016	7.130
11:00 - 12:00	7	2016	4.465	7	2016	4.089	7	2016	8.554
12:00 - 13:00	7	2016	4.727	7	2016	4.599	7	2016	9.326
13:00 - 14:00	7	2016	4.295	7	2016	4.748	7	2016	9.043
14:00 - 15:00	7	2016	4.592	7	2016	4.493	7	2016	9.085
15:00 - 16:00	7	2016	4.238	7	2016	4.245	7	2016	8.483
16:00 - 17:00	7	2016	4.139	7	2016	3.947	7	2016	8.086
17:00 - 18:00	7	2016	3.820	7	2016	4.032	7	2016	7.852
18:00 - 19:00	7	2016	3.380	7	2016	3.657	7	2016	7.037
19:00 - 20:00	7	2016	2.537	7	2016	2.891	7	2016	5.428
20:00 - 21:00	7	2016	1.552	7	2016	1.963	7	2016	3.515
21:00 - 22:00	7	2016	0.609	7	2016	1.035	7	2016	1.644
22:00 - 23:00	7	2016	0.028	7	2016	0.184	7	2016	0.212
23:00 - 24:00									
Total Rates:			48.020			48.096			96.116

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:	1023 - 2568 (units: sqm)
Survey date date range:	01/01/13 - 28/11/20
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	2

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 01 - RETAIL/C - DISCOUNT FOOD STORES
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	7	2016	0.000	7	2016	0.000	7	2016	0.000
08:00 - 09:00	7	2016	0.007	7	2016	0.007	7	2016	0.014
09:00 - 10:00	7	2016	0.035	7	2016	0.035	7	2016	0.070
10:00 - 11:00	7	2016	0.021	7	2016	0.028	7	2016	0.049
11:00 - 12:00	7	2016	0.028	7	2016	0.028	7	2016	0.056
12:00 - 13:00	7	2016	0.021	7	2016	0.021	7	2016	0.042
13:00 - 14:00	7	2016	0.035	7	2016	0.035	7	2016	0.070
14:00 - 15:00	7	2016	0.007	7	2016	0.007	7	2016	0.014
15:00 - 16:00	7	2016	0.007	7	2016	0.014	7	2016	0.021
16:00 - 17:00	7	2016	0.014	7	2016	0.014	7	2016	0.028
17:00 - 18:00	7	2016	0.007	7	2016	0.000	7	2016	0.007
18:00 - 19:00	7	2016	0.028	7	2016	0.021	7	2016	0.049
19:00 - 20:00	7	2016	0.007	7	2016	0.014	7	2016	0.021
20:00 - 21:00	7	2016	0.014	7	2016	0.021	7	2016	0.035
21:00 - 22:00	7	2016	0.007	7	2016	0.007	7	2016	0.014
22:00 - 23:00	7	2016	0.000	7	2016	0.000	7	2016	0.000
23:00 - 24:00									
Total Rates:			0.238			0.252			0.490

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.*

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES
LGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	7	2016	0.021	7	2016	0.014	7	2016	0.035
08:00 - 09:00	7	2016	0.227	7	2016	0.184	7	2016	0.411
09:00 - 10:00	7	2016	0.262	7	2016	0.198	7	2016	0.460
10:00 - 11:00	7	2016	0.206	7	2016	0.234	7	2016	0.440
11:00 - 12:00	7	2016	0.198	7	2016	0.198	7	2016	0.396
12:00 - 13:00	7	2016	0.220	7	2016	0.177	7	2016	0.397
13:00 - 14:00	7	2016	0.198	7	2016	0.227	7	2016	0.425
14:00 - 15:00	7	2016	0.198	7	2016	0.213	7	2016	0.411
15:00 - 16:00	7	2016	0.198	7	2016	0.213	7	2016	0.411
16:00 - 17:00	7	2016	0.241	7	2016	0.227	7	2016	0.468
17:00 - 18:00	7	2016	0.184	7	2016	0.163	7	2016	0.347
18:00 - 19:00	7	2016	0.156	7	2016	0.156	7	2016	0.312
19:00 - 20:00	7	2016	0.142	7	2016	0.156	7	2016	0.298
20:00 - 21:00	7	2016	0.057	7	2016	0.099	7	2016	0.156
21:00 - 22:00	7	2016	0.043	7	2016	0.057	7	2016	0.100
22:00 - 23:00	7	2016	0.000	7	2016	0.000	7	2016	0.000
23:00 - 24:00									
Total Rates:			2.551			2.516			5.067

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.*

Calculation Reference: AUDIT-100323-210927-0957

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
Category : C - DISCOUNT FOOD STORES
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	BD	BEDFORDSHIRE	1 days
03	SOUTH WEST		
	BR	BRISTOL CITY	1 days
	SM	SOMERSET	1 days
05	EAST MIDLANDS		
	LN	LINCOLNSHIRE	2 days
	NR	NORTHAMPTONSHIRE	1 days
	NT	NOTTINGHAMSHIRE	2 days
06	WEST MIDLANDS		
	WO	WORCESTERSHIRE	1 days
09	NORTH		
	TV	TEES VALLEY	1 days
10	WALES		
	CF	CARDIFF	1 days
	MM	MONMOUTHSHIRE	1 days

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

Primary Filtering 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: Gross floor area
Actual Range: 1447 to 2568 (units: sqm)
Range Selected by User: 700 to 2703 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 28/11/20

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:

Saturday	10 days
Sunday	2 days

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

Selected survey types:

Manual count	12 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)	6
Edge of Town	6

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:

Industrial Zone	1
Development Zone	1
Residential Zone	3
Retail Zone	2
High Street	1
No Sub Category	4

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.

Secondary Filtering selection:

Use Class:

E(a)	12 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®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000	5 days
15,001 to 20,000	2 days
20,001 to 25,000	1 days
25,001 to 50,000	3 days
50,001 to 100,000	1 days

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

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	3 days
250,001 to 500,000	4 days

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

Car ownership within 5 miles:

0.5 or Less	2 days
0.6 to 1.0	3 days
1.1 to 1.5	7 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.

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	12 days

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

Not Known	1 days
Yes	1 days
No	10 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.

PTAL Rating:

No PTAL Present	12 days

This data displays the number of selected surveys with PTAL Ratings.

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

LIST OF SITES relevant to selection parameters

1 BD-01-C-01 LIDL BEDFORDSHIRE
RIDGE ROAD
BEDFORD
KEMPSTON
Edge of Town
Residential Zone
Total Gross floor area: 2544 sqm
Survey date: SATURDAY *17/10/20* *Survey Type: MANUAL*

2 BR-01-C-02 LIDL BRISTOL CITY
BATH ROAD
BRISTOL
BRISLINGTON RETAIL PK
Edge of Town
Retail Zone
Total Gross floor area: 1550 sqm
Survey date: SUNDAY *20/09/15* *Survey Type: MANUAL*

3 CF-01-C-01 LIDL CARDIFF
EAST TYNDALL STREET
CARDIFF

Suburban Area (PPS6 Out of Centre)
Development Zone
Total Gross floor area: 2568 sqm
Survey date: SATURDAY *01/07/17* *Survey Type: MANUAL*

4 LN-01-C-02 LIDL LINCOLNSHIRE
DIXON STREET
LINCOLN
NEW BOULTHAM
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Gross floor area: 2233 sqm
Survey date: SATURDAY *28/10/17* *Survey Type: MANUAL*

5 LN-01-C-03 ALDI LINCOLNSHIRE
NEWARK ROAD
LINCOLN
BRACEBRIDGE
Suburban Area (PPS6 Out of Centre)
High Street
Total Gross floor area: 1485 sqm
Survey date: SATURDAY *28/10/17* *Survey Type: MANUAL*

6 MM-01-C-01 LIDL MONMOUTHSHIRE
A466
MONMOUTH
MAYHILL
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Gross floor area: 1640 sqm
Survey date: SATURDAY *28/11/20* *Survey Type: MANUAL*

7 NR-01-C-03 ALDI NORTHAMPTONSHIRE
SAXON WAY WEST
CORBY

Edge of Town
No Sub Category
Total Gross floor area: 2000 sqm
Survey date: SATURDAY *24/10/20* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

8	NT-01-C-01 CHAPEL LANE BINGHAM	LIDL		NOTTINGHAMSHIRE
	Edge of Town Industrial Zone Total Gross floor area:		2440 sqm	
	Survey date: SATURDAY		*16/07/16*	*Survey Type: MANUAL*
9	NT-01-C-02 ASHGATE ROAD NEAR NOTTINGHAM HUCKNALL	ALDI		NOTTINGHAMSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Gross floor area:		1447 sqm	
	Survey date: SUNDAY		*01/07/18*	*Survey Type: MANUAL*
10	SM-01-C-01 SEAWARD WAY MINEHEAD	LIDL		SOMERSET
	Edge of Town No Sub Category Total Gross floor area:		2247 sqm	
	Survey date: SATURDAY		*24/06/17*	*Survey Type: MANUAL*
11	TV-01-C-01 JESMOND GARDENS HARTLEPOOL	LIDL		TEES VALLEY
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Gross floor area:		1765 sqm	
	Survey date: SATURDAY		*05/09/20*	*Survey Type: MANUAL*
12	WO-01-C-01 BLACKPOLE ROAD WORCESTER BRICKFIELDS	LIDL		WORCESTERSHIRE
	Edge of Town Retail Zone Total Gross floor area:		2417 sqm	
	Survey date: SATURDAY		*16/07/16*	*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 01 - RETAIL/C - DISCOUNT FOOD STORES
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	11	2063	0.524	11	2063	0.093	11	2063	0.617
08:00 - 09:00	12	2028	2.383	12	2028	1.755	12	2028	4.138
09:00 - 10:00	12	2028	3.743	12	2028	2.798	12	2028	6.541
10:00 - 11:00	12	2028	5.868	12	2028	5.009	12	2028	10.877
11:00 - 12:00	12	2028	6.723	12	2028	6.287	12	2028	13.010
12:00 - 13:00	12	2028	6.468	12	2028	6.944	12	2028	13.412
13:00 - 14:00	12	2028	6.213	12	2028	6.316	12	2028	12.529
14:00 - 15:00	12	2028	5.720	12	2028	6.024	12	2028	11.744
15:00 - 16:00	12	2028	5.646	12	2028	6.003	12	2028	11.649
16:00 - 17:00	12	2028	4.491	12	2028	4.812	12	2028	9.303
17:00 - 18:00	12	2028	3.657	12	2028	3.817	12	2028	7.474
18:00 - 19:00	11	2071	2.813	11	2071	3.322	11	2071	6.135
19:00 - 20:00	11	2071	1.931	11	2071	2.418	11	2071	4.349
20:00 - 21:00	10	2134	1.134	10	2134	1.481	10	2134	2.615
21:00 - 22:00	10	2134	0.708	10	2134	1.031	10	2134	1.739
22:00 - 23:00	7	2199	0.071	7	2199	0.156	7	2199	0.227
23:00 - 24:00									
Total Rates:			58.093			58.266			116.359

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:	1447 - 2568 (units: sqm)
Survey date date range:	01/01/13 - 28/11/20
Number of weekdays (Monday-Friday):	0
Number of Saturdays:	10
Number of Sundays:	2
Surveys automatically removed from selection:	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 01 - RETAIL/C - DISCOUNT FOOD STORES
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	11	2063	0.022	11	2063	0.009	11	2063	0.031
08:00 - 09:00	12	2028	0.004	12	2028	0.021	12	2028	0.025
09:00 - 10:00	12	2028	0.008	12	2028	0.004	12	2028	0.012
10:00 - 11:00	12	2028	0.008	12	2028	0.004	12	2028	0.012
11:00 - 12:00	12	2028	0.004	12	2028	0.004	12	2028	0.008
12:00 - 13:00	12	2028	0.008	12	2028	0.008	12	2028	0.016
13:00 - 14:00	12	2028	0.012	12	2028	0.004	12	2028	0.016
14:00 - 15:00	12	2028	0.004	12	2028	0.012	12	2028	0.016
15:00 - 16:00	12	2028	0.016	12	2028	0.021	12	2028	0.037
16:00 - 17:00	12	2028	0.004	12	2028	0.004	12	2028	0.008
17:00 - 18:00	12	2028	0.000	12	2028	0.004	12	2028	0.004
18:00 - 19:00	11	2071	0.004	11	2071	0.000	11	2071	0.004
19:00 - 20:00	11	2071	0.009	11	2071	0.009	11	2071	0.018
20:00 - 21:00	10	2134	0.019	10	2134	0.009	10	2134	0.028
21:00 - 22:00	10	2134	0.000	10	2134	0.014	10	2134	0.014
22:00 - 23:00	7	2199	0.000	7	2199	0.000	7	2199	0.000
23:00 - 24:00									
Total Rates:			0.122			0.127			0.249

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.*

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES
LGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	11	2063	0.044	11	2063	0.022	11	2063	0.066
08:00 - 09:00	12	2028	0.140	12	2028	0.082	12	2028	0.222
09:00 - 10:00	12	2028	0.148	12	2028	0.107	12	2028	0.255
10:00 - 11:00	12	2028	0.173	12	2028	0.173	12	2028	0.346
11:00 - 12:00	12	2028	0.201	12	2028	0.222	12	2028	0.423
12:00 - 13:00	12	2028	0.119	12	2028	0.136	12	2028	0.255
13:00 - 14:00	12	2028	0.185	12	2028	0.160	12	2028	0.345
14:00 - 15:00	12	2028	0.210	12	2028	0.185	12	2028	0.395
15:00 - 16:00	12	2028	0.185	12	2028	0.205	12	2028	0.390
16:00 - 17:00	12	2028	0.123	12	2028	0.127	12	2028	0.250
17:00 - 18:00	12	2028	0.160	12	2028	0.131	12	2028	0.291
18:00 - 19:00	11	2071	0.101	11	2071	0.123	11	2071	0.224
19:00 - 20:00	11	2071	0.066	11	2071	0.114	11	2071	0.180
20:00 - 21:00	10	2134	0.033	10	2134	0.075	10	2134	0.108
21:00 - 22:00	10	2134	0.052	10	2134	0.056	10	2134	0.108
22:00 - 23:00	7	2199	0.000	7	2199	0.006	7	2199	0.006
23:00 - 24:00									
Total Rates:			1.940			1.924			3.864

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.*

Filtering Summary

Land Use	06/D	HOTEL, FOOD & DRINK/FAST FOOD - DRIVE THROUGI
Selected Trip Rate Calculation Parameter Range	182-800 sqm GFA	
Actual Trip Rate Calculation Parameter Range	275-435 sqm GFA	
Date Range	Minimum: 01/01/13	Maximum: 02/10/20
Parking Spaces Range	All Surveys Included	
Days of the week selected	Tuesday	2
	Friday	1
Main Location Types selected	Suburban Area (PPS6 Out of Centre)	1
	Edge of Town	2
Population within 500m	All Surveys Included	
Population <1 Mile ranges selected	5,001 to 10,000	1
	10,001 to 15,000	1
	15,001 to 20,000	1
Population <5 Mile ranges selected	100,001 to 125,000	1
	125,001 to 250,000	2
Car Ownership <5 Mile ranges selected	0.6 to 1.0	2
	1.1 to 1.5	1
PTAL Rating	No PTAL Present	3

Calculation Reference: AUDIT-100323-210909-0930

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
Category : D - FAST FOOD - DRIVE THROUGH
TOTAL VEHICLES

Selected regions and areas:

04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
11	SCOTLAND		
	AD	ABERDEEN CITY	1 days
	FI	FIFE	1 days

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

Primary Filtering 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: Gross floor area
Actual Range: 275 to 435 (units: sqm)
Range Selected by User: 182 to 800 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 02/10/20

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:

Tuesday	2 days
Friday	1 days

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

Selected survey types:

Manual count	3 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
Edge of Town	2

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:

Development Zone	1
Residential Zone	1
No Sub Category	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.

Secondary Filtering selection:

Use Class:

Not Known	3 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®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000	1 days
10,001 to 15,000	1 days
15,001 to 20,000	1 days

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

Population within 5 miles:

100,001 to 125,000	1 days
125,001 to 250,000	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	2 days
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	3 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.

PTAL Rating:

No PTAL Present	3 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	AD-06-D-02	BURGER KING		ABERDEEN CITY
	WELLINGTON ROAD			
	ABERDEEN			
	ALTENS			
	Edge of Town			
	No Sub Category			
	Total Gross floor area:		300 sqm	
	Survey date: FRIDAY		*22/11/19*	*Survey Type: MANUAL*
2	CA-06-D-02	MCDONALD'S		CAMBRIDGESHIRE
	NEWMARKET ROAD			
	CAMBRIDGE			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:		435 sqm	
	Survey date: TUESDAY		*19/09/17*	*Survey Type: MANUAL*
3	FI-06-D-02	KFC		FIFE
	WHIMBREL PLACE			
	DUNFERMLINE			
	HALBEATH			
	Edge of Town			
	Development Zone			
	Total Gross floor area:		275 sqm	
	Survey date: TUESDAY		*22/03/16*	*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.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
VG-06-D-01	covid
WO-06-D-01	covid

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/D - FAST FOOD - DRIVE THROUGH
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	2	368	1.905	2	368	1.497	2	368	3.402
08:00 - 09:00	2	368	2.857	2	368	2.993	2	368	5.850
09:00 - 10:00	2	368	4.490	2	368	3.673	2	368	8.163
10:00 - 11:00	3	337	3.366	3	337	2.277	3	337	5.643
11:00 - 12:00	3	337	9.208	3	337	7.822	3	337	17.030
12:00 - 13:00	3	337	16.733	3	337	16.040	3	337	32.773
13:00 - 14:00	3	337	12.772	3	337	16.337	3	337	29.109
14:00 - 15:00	3	337	9.109	3	337	8.812	3	337	17.921
15:00 - 16:00	3	337	6.238	3	337	6.931	3	337	13.169
16:00 - 17:00	3	337	8.713	3	337	7.822	3	337	16.535
17:00 - 18:00	3	337	9.208	3	337	9.802	3	337	19.010
18:00 - 19:00	3	337	13.465	3	337	12.079	3	337	25.544
19:00 - 20:00	3	337	10.000	3	337	11.386	3	337	21.386
20:00 - 21:00	3	337	7.228	3	337	8.020	3	337	15.248
21:00 - 22:00	3	337	5.842	3	337	5.743	3	337	11.585
22:00 - 23:00	2	288	1.565	2	288	2.435	2	288	4.000
23:00 - 24:00									
Total Rates:			122.699			123.669			246.368

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:	275 - 435 (units: sqm)
Survey date date range:	01/01/13 - 02/10/20
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	2

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 06 - HOTEL, FOOD & DRINK/D - FAST FOOD - DRIVE THROUGH
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	2	368	0.000	2	368	0.000	2	368	0.000
08:00 - 09:00	2	368	0.136	2	368	0.136	2	368	0.272
09:00 - 10:00	2	368	0.000	2	368	0.000	2	368	0.000
10:00 - 11:00	3	337	0.000	3	337	0.000	3	337	0.000
11:00 - 12:00	3	337	0.198	3	337	0.000	3	337	0.198
12:00 - 13:00	3	337	0.198	3	337	0.297	3	337	0.495
13:00 - 14:00	3	337	0.198	3	337	0.297	3	337	0.495
14:00 - 15:00	3	337	0.000	3	337	0.000	3	337	0.000
15:00 - 16:00	3	337	0.000	3	337	0.000	3	337	0.000
16:00 - 17:00	3	337	0.000	3	337	0.000	3	337	0.000
17:00 - 18:00	3	337	0.000	3	337	0.000	3	337	0.000
18:00 - 19:00	3	337	0.000	3	337	0.000	3	337	0.000
19:00 - 20:00	3	337	0.000	3	337	0.000	3	337	0.000
20:00 - 21:00	3	337	0.000	3	337	0.000	3	337	0.000
21:00 - 22:00	3	337	0.000	3	337	0.000	3	337	0.000
22:00 - 23:00	2	288	0.000	2	288	0.000	2	288	0.000
23:00 - 24:00									
Total Rates:			0.730			0.730			1.460

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.*

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/D - FAST FOOD - DRIVE THROUGH
LGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	2	368	0.680	2	368	0.408	2	368	1.088
08:00 - 09:00	2	368	0.136	2	368	0.272	2	368	0.408
09:00 - 10:00	2	368	0.952	2	368	0.952	2	368	1.904
10:00 - 11:00	3	337	0.396	3	337	0.297	3	337	0.693
11:00 - 12:00	3	337	1.188	3	337	0.891	3	337	2.079
12:00 - 13:00	3	337	2.970	3	337	2.970	3	337	5.940
13:00 - 14:00	3	337	2.079	3	337	1.980	3	337	4.059
14:00 - 15:00	3	337	0.891	3	337	1.188	3	337	2.079
15:00 - 16:00	3	337	0.693	3	337	0.990	3	337	1.683
16:00 - 17:00	3	337	0.891	3	337	0.594	3	337	1.485
17:00 - 18:00	3	337	0.297	3	337	0.198	3	337	0.495
18:00 - 19:00	3	337	1.485	3	337	1.386	3	337	2.871
19:00 - 20:00	3	337	0.792	3	337	1.089	3	337	1.881
20:00 - 21:00	3	337	0.099	3	337	0.198	3	337	0.297
21:00 - 22:00	3	337	0.396	3	337	0.198	3	337	0.594
22:00 - 23:00	2	288	0.000	2	288	0.000	2	288	0.000
23:00 - 24:00									
Total Rates:			13.945			13.611			27.556

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.*

Filtering Summary

Land Use	06/D	HOTEL, FOOD & DRINK/FAST FOOD - DRIVE THROUGI
Selected Trip Rate Calculation Parameter Range	182-800 sqm GFA	
Actual Trip Rate Calculation Parameter Range	350-447 sqm GFA	
Date Range	Minimum: 01/01/13	Maximum: 02/10/20
Parking Spaces Range	All Surveys Included	
Days of the week selected	Saturday	2
	Sunday	1
Main Location Types selected	Suburban Area (PPS6 Out of Centre)	2
	Edge of Town	1
Population within 500m	All Surveys Included	
Population <1 Mile ranges selected	10,001 to 15,000	1
	15,001 to 20,000	1
	20,001 to 25,000	1
Population <5 Mile ranges selected	25,001 to 50,000	1
	125,001 to 250,000	1
	250,001 to 500,000	1
Car Ownership <5 Mile ranges selected	0.6 to 1.0	1
	1.1 to 1.5	2
PTAL Rating	No PTAL Present	3

Calculation Reference: AUDIT-100323-210909-0902

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
Category : D - FAST FOOD - DRIVE THROUGH
TOTAL VEHICLES

Selected regions and areas:

03	SOUTH WEST	
	DV DEVON	1 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
10	WALES	
	CE CEREDIGION	1 days

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

Primary Filtering 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: Gross floor area
Actual Range: 350 to 447 (units: sqm)
Range Selected by User: 182 to 800 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 02/10/20

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:

Saturday	2 days
Sunday	1 days

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

Selected survey types:

Manual count	3 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)	2
Edge of Town	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:

Development Zone	1
Retail Zone	2

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.

Secondary Filtering selection:

Use Class:

Not Known	3 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®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

10,001 to 15,000	1 days
15,001 to 20,000	1 days
20,001 to 25,000	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
125,001 to 250,000	1 days
250,001 to 500,000	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	2 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	3 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.

PTAL Rating:

No PTAL Present	3 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	CE-06-D-01	MCDONALD'S		CEREDIGION
	FFORDD PARC Y LLYN			
	ABERYSTWYTH			
	Edge of Town			
	Retail Zone			
	Total Gross floor area:		350 sqm	
	Survey date: SATURDAY		*09/05/15*	*Survey Type: MANUAL*
2	DS-06-D-01	KFC		DERBYSHIRE
	WYVERN WAY			
	DERBY			
	PRIDE PARK			
	Suburban Area (PPS6 Out of Centre)			
	Development Zone			
	Total Gross floor area:		370 sqm	
	Survey date: SUNDAY		*26/07/15*	*Survey Type: MANUAL*
3	DV-06-D-01	MCDONALD'S		DEVON
	HELE ROAD			
	TORQUAY			
	Suburban Area (PPS6 Out of Centre)			
	Retail Zone			
	Total Gross floor area:		447 sqm	
	Survey date: SATURDAY		*30/03/19*	*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 06 - HOTEL, FOOD & DRINK/D - FAST FOOD - DRIVE THROUGH
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	350	1.429	1	350	0.857	1	350	2.286
06:00 - 07:00	2	360	3.889	2	360	2.500	2	360	6.389
07:00 - 08:00	3	389	10.197	3	389	8.997	3	389	19.194
08:00 - 09:00	3	389	13.282	3	389	12.853	3	389	26.135
09:00 - 10:00	3	389	19.537	3	389	16.967	3	389	36.504
10:00 - 11:00	3	389	16.538	3	389	17.909	3	389	34.447
11:00 - 12:00	3	389	22.022	3	389	19.195	3	389	41.217
12:00 - 13:00	3	389	32.562	3	389	29.820	3	389	62.382
13:00 - 14:00	3	389	28.449	3	389	30.934	3	389	59.383
14:00 - 15:00	3	389	24.764	3	389	24.764	3	389	49.528
15:00 - 16:00	3	389	19.880	3	389	20.994	3	389	40.874
16:00 - 17:00	3	389	21.680	3	389	22.108	3	389	43.788
17:00 - 18:00	3	389	22.279	3	389	22.793	3	389	45.072
18:00 - 19:00	3	389	24.764	3	389	24.422	3	389	49.186
19:00 - 20:00	3	389	22.622	3	389	24.165	3	389	46.787
20:00 - 21:00	3	389	16.624	3	389	17.138	3	389	33.762
21:00 - 22:00	3	389	15.338	3	389	14.910	3	389	30.248
22:00 - 23:00	3	389	9.854	3	389	11.482	3	389	21.336
23:00 - 24:00	3	389	8.312	3	389	8.912	3	389	17.224
Total Rates:			334.022			331.720			665.742

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:	350 - 447 (units: sqm)
Survey date date range:	01/01/13 - 02/10/20
Number of weekdays (Monday-Friday):	0
Number of Saturdays:	2
Number of Sundays:	1
Surveys automatically removed from selection:	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 06 - HOTEL, FOOD & DRINK/D - FAST FOOD - DRIVE THROUGH
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	350	0.000	1	350	0.000	1	350	0.000
06:00 - 07:00	2	360	0.000	2	360	0.000	2	360	0.000
07:00 - 08:00	3	389	0.086	3	389	0.086	3	389	0.172
08:00 - 09:00	3	389	0.257	3	389	0.171	3	389	0.428
09:00 - 10:00	3	389	0.171	3	389	0.171	3	389	0.342
10:00 - 11:00	3	389	0.343	3	389	0.343	3	389	0.686
11:00 - 12:00	3	389	0.086	3	389	0.171	3	389	0.257
12:00 - 13:00	3	389	0.000	3	389	0.000	3	389	0.000
13:00 - 14:00	3	389	0.086	3	389	0.086	3	389	0.172
14:00 - 15:00	3	389	0.000	3	389	0.000	3	389	0.000
15:00 - 16:00	3	389	0.000	3	389	0.000	3	389	0.000
16:00 - 17:00	3	389	0.086	3	389	0.086	3	389	0.172
17:00 - 18:00	3	389	0.000	3	389	0.000	3	389	0.000
18:00 - 19:00	3	389	0.000	3	389	0.000	3	389	0.000
19:00 - 20:00	3	389	0.000	3	389	0.000	3	389	0.000
20:00 - 21:00	3	389	0.000	3	389	0.000	3	389	0.000
21:00 - 22:00	3	389	0.000	3	389	0.000	3	389	0.000
22:00 - 23:00	3	389	0.000	3	389	0.000	3	389	0.000
23:00 - 24:00	3	389	0.000	3	389	0.000	3	389	0.000
Total Rates:			1.115			1.114			2.229

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.*

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/D - FAST FOOD - DRIVE THROUGH
LGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	350	0.571	1	350	0.286	1	350	0.857
06:00 - 07:00	2	360	0.833	2	360	0.556	2	360	1.389
07:00 - 08:00	3	389	1.542	3	389	1.371	3	389	2.913
08:00 - 09:00	3	389	2.656	3	389	2.314	3	389	4.970
09:00 - 10:00	3	389	1.885	3	389	2.228	3	389	4.113
10:00 - 11:00	3	389	1.542	3	389	1.885	3	389	3.427
11:00 - 12:00	3	389	1.885	3	389	1.285	3	389	3.170
12:00 - 13:00	3	389	2.742	3	389	2.828	3	389	5.570
13:00 - 14:00	3	389	1.799	3	389	1.457	3	389	3.256
14:00 - 15:00	3	389	1.200	3	389	2.057	3	389	3.257
15:00 - 16:00	3	389	1.457	3	389	1.028	3	389	2.485
16:00 - 17:00	3	389	0.943	3	389	1.200	3	389	2.143
17:00 - 18:00	3	389	1.714	3	389	1.457	3	389	3.171
18:00 - 19:00	3	389	0.943	3	389	0.600	3	389	1.543
19:00 - 20:00	3	389	1.028	3	389	1.457	3	389	2.485
20:00 - 21:00	3	389	0.514	3	389	0.514	3	389	1.028
21:00 - 22:00	3	389	0.514	3	389	0.428	3	389	0.942
22:00 - 23:00	3	389	0.428	3	389	0.771	3	389	1.199
23:00 - 24:00	3	389	0.171	3	389	0.257	3	389	0.428
Total Rates:			24.367			23.979			48.346

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.*

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : C - INDUSTRIAL UNIT
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	HC	HAMPSHIRE	1 days
03	SOUTH WEST		
	BR	BRISTOL CITY	1 days
	DV	DEVON	1 days
04	EAST ANGLIA		
	NF	NORFOLK	2 days
	SF	SUFFOLK	1 days
05	EAST MIDLANDS		
	DS	DERBYSHIRE	1 days
06	WEST MIDLANDS		
	HE	HEREFORDSHIRE	1 days
	WM	WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	WY	WEST YORKSHIRE	1 days
08	NORTH WEST		
	CH	CHESHIRE	2 days
	LC	LANCASHIRE	2 days
09	NORTH		
	CB	CUMBRIA	1 days
10	WALES		
	CF	CARDIFF	1 days
11	SCOTLAND		
	SR	STIRLING	1 days

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

Primary Filtering 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: Gross floor area
Actual Range: 150 to 14125 (units: sqm)
Range Selected by User: 150 to 67459 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 22/10/20

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:

Monday	3 days
Tuesday	5 days
Wednesday	1 days
Thursday	7 days
Friday	1 days

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

Selected survey types:

Manual count	17 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)	7
Edge of Town	10

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

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.

Secondary Filtering selection:

Use Class:

Not Known	17 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®.

Filter by Site Operations Breakdown:
All Surveys Included

Population within 500m Range:
All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	3 days
10,001 to 15,000	3 days
15,001 to 20,000	1 days
20,001 to 25,000	3 days
25,001 to 50,000	6 days

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

Population within 5 miles:

5,001 to 25,000	1 days
50,001 to 75,000	2 days
75,001 to 100,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	6 days
250,001 to 500,000	4 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	5 days
1.1 to 1.5	12 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	17 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.

PTAL Rating:

No PTAL Present	17 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 BR-02-C-02 STAINLESS FITTINGS BRISTOL CITY
SOUTH LIBERTY LANE
BRISTOL

Edge of Town
Industrial Zone
Total Gross floor area: 1475 sqm
Survey date: TUESDAY 22/09/15 *Survey Type: MANUAL*

2 CB-02-C-01 DOMINO'S PIZZA CUMBRIA
COWPER ROAD
PENRITH
GILWILLY IND. ESTATE
Edge of Town
Industrial Zone
Total Gross floor area: 2950 sqm
Survey date: TUESDAY 10/06/14 *Survey Type: MANUAL*

3 CF-02-C-02 BAKERY CARDIFF
MAES-Y-COED ROAD
CARDIFF

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 14125 sqm
Survey date: THURSDAY 06/10/16 *Survey Type: MANUAL*

4 CH-02-C-02 INDUSTRIAL MATERIALS CHESHIRE
JUPITER DRIVE
CHESTER
CHESTER W. EMP. PARK
Edge of Town
Industrial Zone
Total Gross floor area: 8100 sqm
Survey date: WEDNESDAY 19/11/14 *Survey Type: MANUAL*

5 CH-02-C-03 OFFICE FURNITURE CHESHIRE
BRUNEL ROAD
MACCLESFIELD
LYME GREEN BUS. PARK
Edge of Town
Development Zone
Total Gross floor area: 6658 sqm
Survey date: MONDAY 19/09/16 *Survey Type: MANUAL*

6 DS-02-C-02 ENGINEERED PRODUCTS DERBYSHIRE
PONTEFRACT STREET
DERBY

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 2600 sqm
Survey date: THURSDAY 25/06/15 *Survey Type: MANUAL*

7 DV-02-C-02 ENERGY RECOVERY FACILITY DEVON
GRACE ROAD SOUTH
EXETER
MARSH BARTON TRAD. EST.
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 3513 sqm
Survey date: THURSDAY 06/07/17 *Survey Type: MANUAL*

8 HC-02-C-01 ENGINEERING COMPANY HAMPSHIRE
JAYS CLOSE
BASINGSTOKE

Edge of Town
Industrial Zone
Total Gross floor area: 3000 sqm
Survey date: THURSDAY 16/06/16 *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 HE-02-C-02 THERMAL PROCESSING HEREFORDSHIRE
COLLEGE ROAD
HEREFORD
BURCOTT
Edge of Town
Commercial Zone
Total Gross floor area: 1880 sqm
Survey date: TUESDAY 22/10/13 Survey Type: MANUAL

10 LC-02-C-03 TIMBER SUPPLIES LANCASHIRE
GOLDEN HILL LANE
LEYLAND

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 150 sqm
Survey date: TUESDAY 06/11/18 Survey Type: MANUAL

11 LC-02-C-04 POWDER COATINGS LANCASHIRE
CHORLEY ROAD
BLACKPOOL
LITTLE CARLETON
Edge of Town
Industrial Zone
Total Gross floor area: 1010 sqm
Survey date: THURSDAY 20/06/19 Survey Type: MANUAL

12 NF-02-C-03 SHEET METAL CONTRACTOR NORFOLK
ELVIN WAY
NORWICH
HELLESDON
Edge of Town
Industrial Zone
Total Gross floor area: 260 sqm
Survey date: THURSDAY 07/11/19 Survey Type: MANUAL

13 NF-02-C-04 EXHIBITION DESIGN & MANUF. NORFOLK
FLETCHER WAY
NORWICH
UPPER HELLESDON
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 690 sqm
Survey date: THURSDAY 14/11/19 Survey Type: MANUAL

14 SF-02-C-01 JOINERY SUFFOLK
ANSON ROAD
IPSWICH
MARTLESHAM HEATH
Edge of Town
Industrial Zone
Total Gross floor area: 1100 sqm
Survey date: FRIDAY 12/07/13 Survey Type: MANUAL

15 SR-02-C-01 SPECIALIST MODEL MAKING STIRLING
BORROWMEADOW ROAD
STIRLING

Edge of Town
Industrial Zone
Total Gross floor area: 2350 sqm
Survey date: MONDAY 16/06/14 Survey Type: MANUAL

16 WM-02-C-04 FOUNDRY WEST MIDLANDS
STOURVALE ROAD
STOURBRIDGE
LYE
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 4324 sqm
Survey date: TUESDAY 21/11/17 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

17 WY-02-C-02 FLUID SYSTEMS WEST YORKSHIRE
BROWN LANE WEST
LEEDS
HOLBECK
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 13350 sqm
Survey date: MONDAY *19/10/15* *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.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
BD-02-C-01	covid
NR-02-C-02	covid
TV-02-C-02	covid

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	2950	0.000	1	2950	0.000	1	2950	0.000
05:30 - 06:00	1	2950	0.102	1	2950	0.000	1	2950	0.102
06:00 - 06:30	2	8150	0.178	2	8150	0.000	2	8150	0.178
06:30 - 07:00	3	6217	0.231	3	6217	0.011	3	6217	0.242
07:00 - 07:30	17	3973	0.129	17	3973	0.019	17	3973	0.148
07:30 - 08:00	17	3973	0.150	17	3973	0.027	17	3973	0.177
08:00 - 08:30	17	3973	0.178	17	3973	0.024	17	3973	0.202
08:30 - 09:00	17	3973	0.130	17	3973	0.038	17	3973	0.168
09:00 - 09:30	17	3973	0.099	17	3973	0.041	17	3973	0.140
09:30 - 10:00	17	3973	0.086	17	3973	0.074	17	3973	0.160
10:00 - 10:30	17	3973	0.083	17	3973	0.056	17	3973	0.139
10:30 - 11:00	17	3973	0.083	17	3973	0.065	17	3973	0.148
11:00 - 11:30	17	3973	0.056	17	3973	0.065	17	3973	0.121
11:30 - 12:00	17	3973	0.041	17	3973	0.058	17	3973	0.099
12:00 - 12:30	17	3973	0.081	17	3973	0.068	17	3973	0.149
12:30 - 13:00	17	3973	0.071	17	3973	0.090	17	3973	0.161
13:00 - 13:30	17	3973	0.095	17	3973	0.099	17	3973	0.194
13:30 - 14:00	17	3973	0.046	17	3973	0.041	17	3973	0.087
14:00 - 14:30	17	3973	0.055	17	3973	0.053	17	3973	0.108
14:30 - 15:00	17	3973	0.034	17	3973	0.055	17	3973	0.089
15:00 - 15:30	17	3973	0.047	17	3973	0.084	17	3973	0.131
15:30 - 16:00	17	3973	0.037	17	3973	0.093	17	3973	0.130
16:00 - 16:30	17	3973	0.031	17	3973	0.175	17	3973	0.206
16:30 - 17:00	17	3973	0.012	17	3973	0.121	17	3973	0.133
17:00 - 17:30	17	3973	0.033	17	3973	0.151	17	3973	0.184
17:30 - 18:00	17	3973	0.041	17	3973	0.068	17	3973	0.109
18:00 - 18:30	17	3973	0.024	17	3973	0.104	17	3973	0.128
18:30 - 19:00	16	4074	0.017	16	4074	0.026	16	4074	0.043
19:00 - 19:30	1	2950	0.169	1	2950	0.102	1	2950	0.271
19:30 - 20:00	1	2950	0.034	1	2950	0.102	1	2950	0.136
20:00 - 20:30	1	2950	0.034	1	2950	0.034	1	2950	0.068
20:30 - 21:00	1	2950	0.068	1	2950	0.102	1	2950	0.170
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			2.475			2.046			4.521

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:	150 - 14125 (units: sqm)
Survey date date range:	01/01/13 - 22/10/20
Number of weekdays (Monday-Friday):	17
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	3

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 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	2950	0.000	1	2950	0.000	1	2950	0.000
05:30 - 06:00	1	2950	0.000	1	2950	0.000	1	2950	0.000
06:00 - 06:30	2	8150	0.006	2	8150	0.000	2	8150	0.006
06:30 - 07:00	3	6217	0.005	3	6217	0.000	3	6217	0.005
07:00 - 07:30	17	3973	0.013	17	3973	0.004	17	3973	0.017
07:30 - 08:00	17	3973	0.009	17	3973	0.013	17	3973	0.022
08:00 - 08:30	17	3973	0.015	17	3973	0.009	17	3973	0.024
08:30 - 09:00	17	3973	0.024	17	3973	0.010	17	3973	0.034
09:00 - 09:30	17	3973	0.025	17	3973	0.015	17	3973	0.040
09:30 - 10:00	17	3973	0.031	17	3973	0.021	17	3973	0.052
10:00 - 10:30	17	3973	0.027	17	3973	0.012	17	3973	0.039
10:30 - 11:00	17	3973	0.028	17	3973	0.012	17	3973	0.040
11:00 - 11:30	17	3973	0.018	17	3973	0.018	17	3973	0.036
11:30 - 12:00	17	3973	0.013	17	3973	0.016	17	3973	0.029
12:00 - 12:30	17	3973	0.028	17	3973	0.021	17	3973	0.049
12:30 - 13:00	17	3973	0.012	17	3973	0.018	17	3973	0.030
13:00 - 13:30	17	3973	0.025	17	3973	0.013	17	3973	0.038
13:30 - 14:00	17	3973	0.012	17	3973	0.007	17	3973	0.019
14:00 - 14:30	17	3973	0.009	17	3973	0.007	17	3973	0.016
14:30 - 15:00	17	3973	0.006	17	3973	0.009	17	3973	0.015
15:00 - 15:30	17	3973	0.009	17	3973	0.012	17	3973	0.021
15:30 - 16:00	17	3973	0.010	17	3973	0.009	17	3973	0.019
16:00 - 16:30	17	3973	0.012	17	3973	0.012	17	3973	0.024
16:30 - 17:00	17	3973	0.000	17	3973	0.006	17	3973	0.006
17:00 - 17:30	17	3973	0.001	17	3973	0.001	17	3973	0.002
17:30 - 18:00	17	3973	0.003	17	3973	0.001	17	3973	0.004
18:00 - 18:30	17	3973	0.000	17	3973	0.000	17	3973	0.000
18:30 - 19:00	17	3973	0.001	17	3973	0.001	17	3973	0.002
19:00 - 19:30	1	2950	0.000	1	2950	0.102	1	2950	0.102
19:30 - 20:00	1	2950	0.000	1	2950	0.102	1	2950	0.102
20:00 - 20:30	1	2950	0.000	1	2950	0.034	1	2950	0.034
20:30 - 21:00	1	2950	0.000	1	2950	0.068	1	2950	0.068
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.342			0.553			0.895

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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TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
LGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	2950	0.000	1	2950	0.000	1	2950	0.000
05:30 - 06:00	1	2950	0.000	1	2950	0.000	1	2950	0.000
06:00 - 06:30	2	8150	0.043	2	8150	0.000	2	8150	0.043
06:30 - 07:00	3	6217	0.027	3	6217	0.000	3	6217	0.027
07:00 - 07:30	17	3973	0.018	17	3973	0.004	17	3973	0.022
07:30 - 08:00	17	3973	0.010	17	3973	0.003	17	3973	0.013
08:00 - 08:30	17	3973	0.007	17	3973	0.006	17	3973	0.013
08:30 - 09:00	17	3973	0.015	17	3973	0.012	17	3973	0.027
09:00 - 09:30	17	3973	0.012	17	3973	0.009	17	3973	0.021
09:30 - 10:00	17	3973	0.012	17	3973	0.013	17	3973	0.025
10:00 - 10:30	17	3973	0.024	17	3973	0.018	17	3973	0.042
10:30 - 11:00	17	3973	0.030	17	3973	0.027	17	3973	0.057
11:00 - 11:30	17	3973	0.018	17	3973	0.016	17	3973	0.034
11:30 - 12:00	17	3973	0.010	17	3973	0.015	17	3973	0.025
12:00 - 12:30	17	3973	0.024	17	3973	0.013	17	3973	0.037
12:30 - 13:00	17	3973	0.013	17	3973	0.016	17	3973	0.029
13:00 - 13:30	17	3973	0.016	17	3973	0.024	17	3973	0.040
13:30 - 14:00	17	3973	0.004	17	3973	0.006	17	3973	0.010
14:00 - 14:30	17	3973	0.013	17	3973	0.015	17	3973	0.028
14:30 - 15:00	17	3973	0.015	17	3973	0.015	17	3973	0.030
15:00 - 15:30	17	3973	0.018	17	3973	0.022	17	3973	0.040
15:30 - 16:00	17	3973	0.015	17	3973	0.013	17	3973	0.028
16:00 - 16:30	17	3973	0.004	17	3973	0.027	17	3973	0.031
16:30 - 17:00	17	3973	0.007	17	3973	0.007	17	3973	0.014
17:00 - 17:30	17	3973	0.001	17	3973	0.007	17	3973	0.008
17:30 - 18:00	17	3973	0.003	17	3973	0.004	17	3973	0.007
18:00 - 18:30	17	3973	0.001	17	3973	0.000	17	3973	0.001
18:30 - 19:00	17	3973	0.000	17	3973	0.001	17	3973	0.001
19:00 - 19:30	1	2950	0.000	1	2950	0.000	1	2950	0.000
19:30 - 20:00	1	2950	0.000	1	2950	0.000	1	2950	0.000
20:00 - 20:30	1	2950	0.000	1	2950	0.000	1	2950	0.000
20:30 - 21:00	1	2950	0.000	1	2950	0.034	1	2950	0.034
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.360			0.327			0.687

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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TECHNICAL NOTE 1

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SUBJECT:	Scoping Note Review		
PROJECT:	Lancashire Central Strategic Site	**AUTHOR:**	LB
CHECKED:	ET	**APPROVED:**	NMcK

PREAMBLE & SCOPE OF REVIEW

National Highways has been appointed by the Secretary of State for Transport as a strategic highway company under the provisions of the Infrastructure Act 2015. National Highways are responsible for operating, maintaining and improving the Strategic Road Network (SRN) in England, in accordance with the License issued by the Secretary for State (April 2015 and Government policies and objectives. National Highways' approach to engaging with the planning system is governed by the advice and guidance set out in:

The Strategic Road Network Planning for the Future – A guide to working with Highways England on Planning Matters (2015)

The document is written in the context of the statutory responsibilities as set out in National Highways' License, and in light of Government policy and regulation, including the:

- National Planning Policy Framework (NPPF)
- Town and County Planning Development Management (Procedure) Order (England) 2015 (DMPO)
- DfT Circular 02/2013 The Strategic Road Network and the delivery of sustainable development ('the circular')

As a statutory consultee in the planning system, National Highways has a regulatory duty to co-operate. Consequently, National Highways are obliged to give consideration to all proposals received and to provide appropriate, timely and substantive responses.

National Highways' desire to be a proactive planning partner goes beyond this statutory role, but follows the spirit of the License which stipulates National Highways should:

"Support local and national economic growth and regeneration"

WSP Development Planning ('WSP DP') have prepared the scope for a Transport Assessment to be produced to accompany a revised planning application for an employment led, mixed use development at Lancashire Central (known previously as 'Cuerden Strategic Site').

Lancashire County Council have consulted National Highways on the proposals, and National Highways have subsequently commissioned WSP's National Highways team ('WSP NH') to review the Transport Assessment Scope produced by the developer's consultants, WSP DP.

The following documents have been provided by SRBC and will be subsequently reviewed through this Technical Note:

- Lancashire Central Transport Assessment Scope

This review is required to ensure an appropriate assessment of the development traffic impacts on the SRN is undertaken, with particular attention to the M6 J29 / M61 J1, M61 J29 / M65 J2.

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SITE & SCHEME BACKGROUND

A hybrid planning application was submitted to SRBC in January 2017 for a mixed used development known as Cuerden Strategic Site, with planning permission granted in December 2017 (Planning Reference: 07/2017/0211/ORM).

In December 2019, the developer of the Cuerden site engaged Highways England in early pre-application discussions regarding a potential proposal to revise the approved uses at the site. WSP provided comments to Highways England / developer with this technical note provided at Appendix A of this report. **WSP would advise these points are taken onboard and considered (where appropriate) when developing the Transport Assessment to support the upcoming planning application, particularly the request to set out an audit trail of the approach taken for each element of the assessment.** The key findings are replicated below for ease of reference:

- Clarify the planning strategy for the revised development site, including the schedule of accommodation for the planning application and when the application is planned to be submitted
- To avoid information being split across a number of documents, it is suggested that all information supporting the current development proposals is provided in an updated transport submission
- As the work supporting the trip generation is now at least three years old, it is suggested that the trip rates are revisited to confirm if there are any changes if the TRICS assessments are re-run. This is particularly pertinent to the employment (logistics) trip generation as this now forms a larger proportion of the site. Further, this type of land use has seen significant development and changes to the way it operates in recent years therefore more recent information may be available
- Where linked trip assumptions have been applied we request these are reviewed to confirm they remain appropriate with the revised development mix
- Provide a clear audit trail on how the distributions have been derived from census data. E.g. the distribution and assignment calculations behind the final distribution in the spreadsheet provided
- The traffic assignment spreadsheet should be reviewed because flow inconsistencies are present between the junctions where this should not be possible
- The LCC distribution applied to the Business Park and Mixed-Use development plots, appears to still feature an access on to the A49
- The separate quantification of light and heavy trips for logistics and warehousing development should be undertaken
- Subject to previous comments about the trip generation and distribution, traffic flows in the junction models will need to be undertaken
- We expect to receive the following models to understand the development impact for review:
    - Base model of the existing network, Opening year base model without development, Opening year model with development
- WSP request the Degree of Saturation (DoS) and queue outputs are reported for each model and scenario.

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- The saturation flow methodology should be consistent for each junction model. As stated in text, JCT recommend the RR67 approach is not used for signalised roundabouts. Instead, a value of 1900 PCU/hr is recommended as a starting point. WSP therefore suggest 1900 saturation flows are adopted for the LinSig models.

DEVELOPMENT PROPOSALS

Site Location

As shown in

Figure 1, the site is located within proximity to three key SRN junctions: M6/M65 interchange the M65/M61 interchange and the M6/A6/Church Road junction. As noted in Section 2.1, the site is bound by the M65 to its northern edge.

Figure 1 Site Location (Taken from the Transport Assessment Scope Note)

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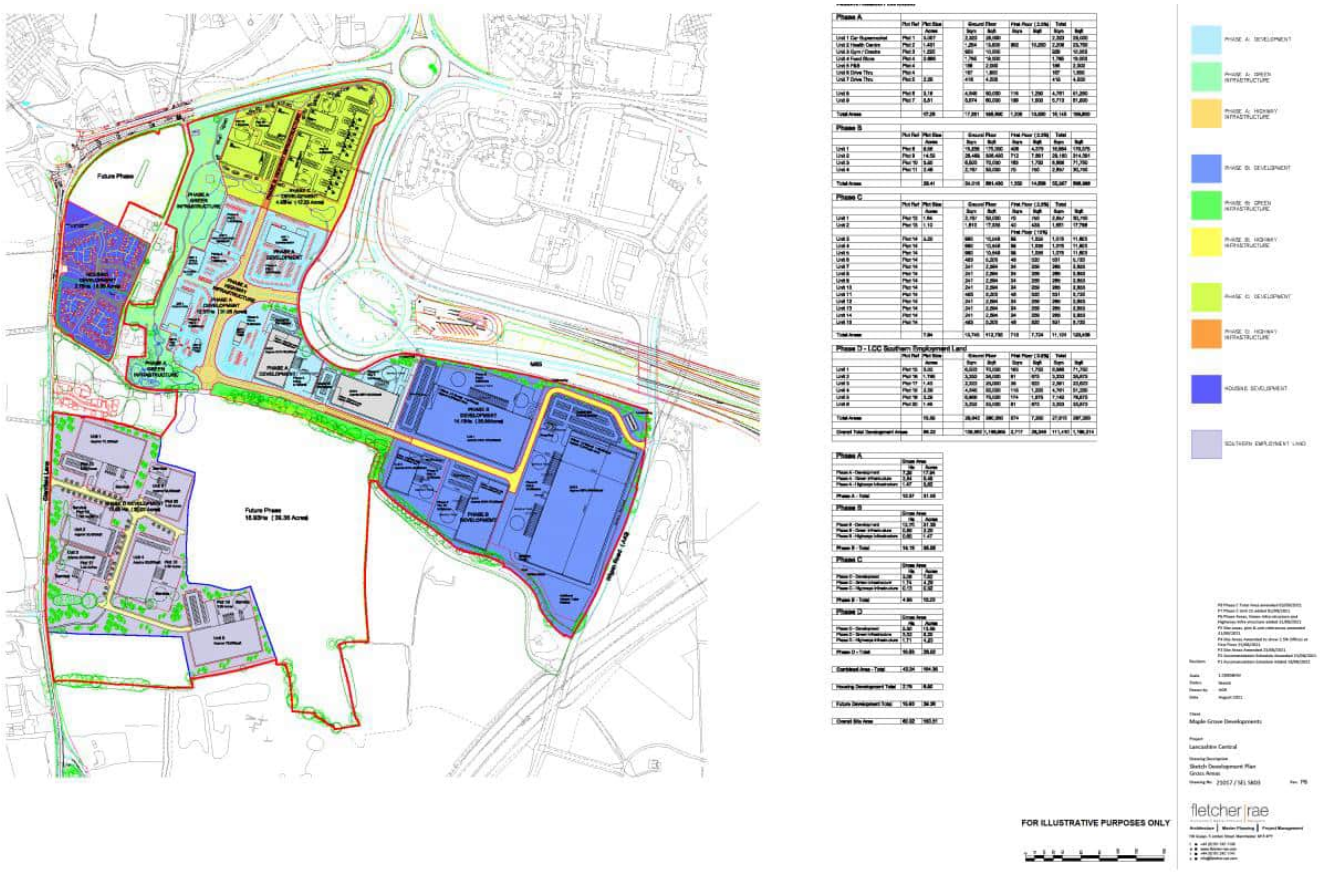
Development Schedule

The Transport Assessment Scope outlines the proposals are for an industrial and logistics led mixed use development, shown in Figure 2.

Figure 2 Indicative Development Proposals (Taken from the TA Scope)



The indicative Development Plan for the site shows four different development areas: Development Phases A-D, a housing development parcel to the north west and two Future Phase development parcels to the north east and southern portion of the site. It is stated in the Scope that the future TA will be for Phases A-D and the housing development plot with the remaining plots marked as Future Phase development plots to be included within the assessments as committed developments (with their land uses those for the extant planning permission).

Figure 2 shows the following:

- Phase A includes a range of provisional land uses including a Car Showroom, Health Centre, Gym/Creche, Food Store, Restaurant, two Drive-Thru units and two industrial warehousing units
- Phase B includes a further four industrial warehousing units alongside associated office space

- Phase C includes an additional fifteen industrial units with associated office space
- Phase D adds six more industrial units

It is requested that a summary table is provided in the TA setting out the changes in the master plan between the 2018 approved scheme and the new proposals.

If possible, at this stage, it is requested that any further details be provided on the 'Future Phase' aspirations for the site.

A degree of flexibility in the layout of the site bordering the M65 (Phase B) may be required to account for any land take needed to deliver any mitigation scheme in accordance with design standards. This should be considered within the TA.

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TRANSPORT ASSESSMENT STRUCTURE

Introduction

The proposed TA structure is outlined as follows.

Section 1 – Introduction

It is stated by WSP DP that this section will set out the required background, scope and methodology information as well as the document purpose.

It is requested that WSP DP provide a summary table within the TA setting out the changes in the master plan between the 2018 approved scheme and the new proposals.

Section 2 – Existing Conditions

This section will include existing conditions for active travel, public transport, highway network and traffic congestion issues. It is also outlined that it will include a road safety section, which will review local accident records within the local area over the previous five years and identification of any trends, with a description of how the development will mitigate against any road safety impacts. Furthermore, it is stated that the scope of the study area for accident data will be as per the 2016 Mott MacDonald TA.

Alongside this, it is stated that to establish the baseline traffic conditions, base year traffic flows will be taken from the 2017 Mott MacDonald TA Addendum which used traffic surveys from June 2016. These 2016 base year flows will be adjusted to provide 2021 base year flows as well as anticipated future year flows (based on assumed opening year TBC). It is stated within the Transport Assessment Scope note that LCC Highways provided confirmation that they agreed with this use of the previous traffic surveys for the forthcoming Transport Assessment.

It is stated that the scope of the traffic flow diagrams (i.e. the local highway network) will be in line with the 2017 Mott MacDonald TA Addendum.

It is requested that the study area for analysis of collision data should cover the same extent as the operational assessment including any junctions within the SRN. WSP NH request that the collision data obtained for this analysis is the latest STATS data available.

It is noted that 2016 traffic surveys are proposed to be used to represent the baseline flows. It is requested that the TA includes analysis that the 2016 survey data reflects current conditions on the SRN (notwithstanding any COVID-19 pandemic-related restrictions that could be in force) and are appropriate for use.

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Section 3 – Proposed Development

It is stated that this section will include a description of the development, including on site highway design and layout, access and car parking.

WSP NH will be able to comment on the proposed access strategy when WSP DP provide information including, but not limited to, junction layouts, vehicle swept path assessments and operational assessments. Once produced, it is recommended that the National Highways are provided with all preliminary designs for review and comment.

Section 4 – Policy Review

This section will consist of a review of all relevant policy and description of how the development complies with national, regional and local policies.

WSP DP advise that any future Transport Assessment and Travel Plans follow the guidance set out in DfT Circular 02/2013 The Strategic Road Network and the delivery of sustainable development and National Highway's The Strategic Road Network Planning for the Future – A guide to working with Highways England on Planning Matters (2015).

Section 5 – Trip Generation and Distribution

Trip generation rates used will be based on TRICS 7.8.2 database for the various land uses proposed at the site. It is stated that the trip rates for the Car Showroom proposed are based on rates provided by LCC Highways which are outlined to be specific rates for car showrooms within the Lancashire Region.

Proposed development trip distribution will be taken from the agreed distribution within the consented Mott McDonald TA Addendum.

The Transport Assessment Scope note appendix includes the TRICS outputs for each of the development land uses.

The trip rates and subsequent trip generation is for 07:30-08:30 period for the AM, 16:30-17:30 for the PM for the weekday peaks with a weekend period of 13:00-14:00 also provided. Trip rates and subsequent trip generation has also been provided for a 24 hour period for both cars and HGVs.

It is stated within the Transport Assessment Scope that the as per the 2017 TA Addendum, a PM only discount is applied to reflect a level of cross-visitation by employees of the industrial and warehousing units to the additional uses within the site. This picks up weekly or fortnightly trips by individuals working at the site to the retail or leisure land uses. The PM peak employment trips are stated to have subsequently been discounted by 10% to account for this cross-visitation. The proposed Drive-Thru units are stated will be linked to cross-visitation with the other uses on site. To account for this, it is stated that the Drive-Thru trips have been discounted by 30% in the AM and PM weekday peak and the weekend peak period.

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The trip generation of the proposed development (including the future development phases) has been compared to the trip generation from the consented application for the site. It is stated that the 24 hour total vehicle and HGV trip generation have been calculated based on information provided in the Mott McDonald TA.

Overall, the figures show that in each of the periods (weekday AM, PM, weekend peak, 24hr weekday, 24hr weekend) the proposed development is forecast to generate less two-way vehicle trips than the consented development.

The Transport Assessment Scope also outlines that the 2016 traffic flows will be factored using TEMPro 7.2 for the whole of South Ribble for car drivers only to create 2021 base year flows.

Although it is acknowledged that the TA proposes to use a similar approach taken by Mott McDonald's in the previous application it is requested that full details and justification that the methodology is appropriate for the current development is included in the TA. This will enable WSP NH to fully advise National Highways.

WSP NH request a high-level site plan for the development in order to understand how the development traffic will distribute onto the network. It is requested that more details are provided on the phasing of the development.

The TAS contains a list of Committed Developments which it is proposed are considered as part of the TA. The listed developments are shown in Figure 3. The Transport Assessment Scope states that the local developments considered have been taken from both Mott McDonald's Transport Assessment for the Consented Scheme alongside the addition of the Leyland Test Track and Land west of Lancashire Business Park.

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Figure 3 Proposed Committed Developments To Be Included (Taken from the TA Scope)

Site	Development Proposals	Status	Assumed Build out by 2021	Traffic flows
Leyland Test Track 07/2017/3361/ORM	950 dwellings, employment use	Approved Nov 2019	0	Traffic Flow Figures not available on planning portal or in TA appendix
Land west of Lancashire Business Park 07/2020/00781/OUT	Up to 612,500 sqft of B2 and B8	Approved May 2021	0	Traffic flows in TA
Former New Mill Site Land off Wesley St, Bamber Bridge 07/2012/0728/OUT	200 dwellings	Approved Aug 2013, partially built out	103*	TS Figure 11 – Traffic flows at A6 Wigan Rd junction
Land Formerly Gas Works, Leyland Rd, Lostock Hall 07/2013/0008/ORM	281 dwellings	Approved April 2014, partially built out	71*	No traffic flows provided in TA
Vernon Carus, Penwortham 07/2014/0190/ORM	385 dwellings	Approved Dec 2015, No build out	0*	No traffic flows on planning portal
Land to the rear of 2 Leyland Lane 454 Croston Road 07/2012/0627/ORM	175 dwellings	Approved Aug 2013, partially built out	24*	Tech Note includes flows for Flensburg Way/ Crostons Rd
Land off Croston Road 07/2014/0184/ORM	400 dwellings	Approved Mar 2016, No build out	0*	Appendix G – traffic flows
North of Altcar Lane 07/2016/0310/OUT	200 dwellings	Approved Feb 2017, partially built out	92*	Appendix H development trips (Leyland Lane Schieswig Way area)
Land Near Shaw Road Brook Rd, Altcar Lane 07/2016/0591/OUT	400 dwellings	Approved Sept 2017, partial built out	32	Development trips (Leyland Lane Schieswig Way area)
Land south of Cuerden Farm and	300 dwellings	Approved July 2011, fully built out	300	Appendix H of TA
Woodcocks Farm 10/00414/OUTMAJ				
Land north of Lancaster Lane 12/00941/OUTMAJ	160 dwellings	Approved October 2012, fully built out	160	Appendix 9 of TA
Land Adjoining Cuerden Residential Park 12/00872/FULMAJ	52 dwellings	Approved Aug 2013, fully built out	52	Fully built out

**Level of build out on site by March 2021 (Data source: SRBC and Chorley Planning Portal)*

Alongside the listed committed developments shown in Figure 3 it is stated within the TAS Scope that LCC requested a sensitivity test was carried out to take into account expected developments within the local area. It is stated within the Transport Assessment Scope that these are defined as development which have been submitted but yet to be decided on and are shown in Figure 4.

Figure 4 Sensitivity Test Developments (Taken from TA Scope)

Site	Development Proposals	Status
Pickerings Farm 07/2021/00886/ORM	1,100 dwellings and local centre (Local Plan up to 1350 dwellings)	Application submitted August 2021
A582 Dualling LCC/2020/0014	Dualling of A582	Application submitted Feb 2020

It is stated that for the Pickering's Farm development as there are currently no publicly available documents for the development that trip rates for the Lancashire Business Park TA will be used to derive forecast traffic flow for the development.

It is requested that WSP DP engage with the LPA to ensure that the appropriate trips are used in the TA assessment.

Section 6 – Active Travel and Sustainable Transport Strategy

It is stated within the Transport Assessment Scope that this chapter will include a description and assessment of existing and proposed provision for pedestrians, cyclists and public transport. It is also outlined that there will be an assessment of opportunities for travel to the site on foot, by cycle or public transport, and a description of how the development will enhance the provision for travel by these modes. Alongside this, it is noted that annotated site context plans will accompany the descriptions.

Section 7 – Servicing and Refuse Strategy

It is stated within the Transport Assessment Scope that this chapter will include the quantum and types of servicing and refuse vehicles likely to access the site and include swept path drawings showing how these vehicles will be able to access/egress the site.

In order for WSP NH to advise NH on the appropriateness of the access strategy it is requested that the following is included in the TA - junction layout, swept path analysis and quantum and types of servicing vehicles.

Section 8 – Traffic Capacity Assessment

It is stated in the Transport Assessment Scope that, in line with the TA for the consented scheme, the following junctions are proposed to be assessed using junction modelling software:

- J1 – Stanifield Lane / Lostock Lane / Watkin Lane (Linsig)
- J2 – A6 / A582 Bamber Bridge 'Sainsburys Roundabout' (Linsig)
- J3 – A6 / Cuerden Way (Linsig)
- J4 – B6258 / A48 / A6 (Linsig)

- J5 – A6 / M6 (ARCADY)
- J7 – A5083 / Wigan Road (Linsig)
- J8 – M56 / M6 (Linsig)
- J10 – M65 Terminus (Linsig with development)
- J13 – Leyland Way / Lancaster Lane / A49 (Linsig)
- Stanifield Lane Site Access (PICADY)

To model the junctions, it is proposed that model files used for the previous application will be requested by WSP from Mott McDonald. If unavailable, it is stated that the model outputs included within the extant TA alongside traffic signal controller and junction layout information will be used to replicate the previous modelling undertaken.

It is requested that full details and justification that the methodology is appropriate for the current development is included in the TA. This will enable WSP NH to fully advise National Highways.

It is requested that WSP DP liaise with LCC to obtain updated traffic signal timings and junction layouts.

WSP NH advise that CD 122 Merge/Diverge analysis should be provided for the SRN junctions.

It is proposed that the following scenarios will be tested:

- Base: 2021 Base Year Traffic Flows
- DM: Future Year + Committed Developments – Without Development
- DS: Future Year + Committed Developments – With Development
- DM Sensitivity Test: Future Year + Committed Developments and Expected Developments – Without Development
- DM Sensitivity Test: Future Year + Committed Developments and Expected Developments – With Development

In line with National Highway's 'The Strategic Road Network Planning for the Future – a guide to working with Highways England on Planning Matters' (2015) guidance paragraph 101, assessments should be carried out for:

- **the opening year, assuming full build out and occupation**
- **and either a date ten years after the date of registration of the associated planning application or the end of the Local Plan period (whichever is greater)**

WSP NH advise that WSP DP ensure any assessments carried out align with those required by National Highways.

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It is stated within the Transport Assessment Scope that WSP do not consider that microsimulation modelling is required to support the forthcoming Transport Assessment for the following reasons:

- proposed development traffic in all peak hours and in the 24 hour period is much lower than previous application and therefore it would not generate any significant impact on the wider local road network and impact compared to the consented scheme is significantly reduced
- Existing VISSIM modelling provides an analysis of the worst-case impacts from the development site based on microsimulation modelling
- Local junction assessment will be conducted using Arcady/Picady/Linsig therefore WSP state that they consider that microsimulation modelling would not add to the existing understanding of the operation of the local or strategic highway network and therefore WSP state that it would be superfluous for this application
- The previous TA used a VISSIM model to validate the individual junction models which provided information on the wider network performance. It is stated within the Transport Assessment Scope that as the forthcoming Transport Assessment intends to use previously validated model's they have already been informed by microsimulation modelling

WSP NH would comment that the study area network has a number of junctions which are subject to complex driver behaviour and have the potential for interaction. WSP NH would therefore advise that the starting point for the approach to operational assessment in the Transport Assessment should be full assessment approach used to support the approved development at the site which included micro-simulation modelling.

It is requested that WSP DP further liaise with LCC (supported by National Highways) to agree the best approach for the revised application (being mindful of the assessment approach required by other applications which are currently progressing through planning). Notwithstanding, the full justification for the approach to the operational assessments of junctions in the study area should be fully evidenced in the Transport Assessment.

Section 9 – Summary

It is stated that this final chapter will include a summary of the key points of the Transport Assessment.

Travel Plan

It is stated that a stand-alone Travel Plan document will be provided which will set out the proposed measures to encourage sustainable (i.e. non car) travel to the development by future employees and

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SUMMARY

WSP NH, on behalf of National Highways, have undertaken a review of the Transport Assessment Scope prepared by WSP DP.

The following key points have been raised as part of this review:

- In December 2019 the developer engaged in pre-application discussion for proposals to revise the uses at the site. WSP would advise these points are taken onboard and considered (where appropriate) when developing the Transport Assessment to support the upcoming planning application, particularly the request to set out an audit trail of the approach taken for each element of the assessment.
- It is requested that a summary table is provided in the TA setting out the changes in the master plan between the 2018 approved scheme and the new proposals.
- If possible, at this stage, it is requested that any further details be provided on the 'Future Phase' aspirations for the site.
- A degree of flexibility in the layout of the site bordering the M65 (Phase B) may be required to account for any land take needed to deliver any mitigation scheme in accordance with design standards. This should be considered within the TA.
- It is requested that the study area for analysis of collision data should cover the same extent as the operational assessment including any junctions within the SRN. WSP NH request that the collision data obtained for this analysis is the latest STATS data available.
- It is noted that 2016 traffic surveys are proposed to be used to represent the baseline flows. It is requested that the TA includes analysis that the 2016 survey data reflects current conditions on the SRN and are appropriate for use.
- WSP NH will be able to comment on the proposed access strategy when WSP DP provide information including, but not limited to, junction layouts, vehicle swept path assessments and operational assessments. Once produced, it is recommended that the National Highways are provided with all preliminary designs for review and comment.
- WSP DP advise that any future Transport Assessment and Travel Plans follow the guidance set out in DfT Circular 02/2013 The Strategic Road Network and the delivery of sustainable development and National Highways 'The Strategic Road Network Planning for the Future – A guide to working with Highways England on Planning Matters (2015)'.
- Although it is acknowledged that the TA proposes to use a similar approach taken by Mott McDonald's in the previous application it is requested that full details and justification that the methodology is appropriate for the current development is included in the TA. This will enable WSP NH to fully advise National Highways.
- It is requested that WSP DP engage with the LPA to ensure that the appropriate trips are used in the TA assessment.

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- WSP NH request a high-level site plan for the development in order to understand how the development traffic will distribute onto the network. It is requested that more details are provided on the phasing of the development.
- It is requested that WSP DP liaise with LCC to obtain updated traffic signal timings and junction layouts.
- WSP NH advise that CD 122 Merge/Diverge analysis should be provided for the SRN junctions.
- In line with National Highway's 'The Strategic Road Network Planning for the Future – a guide to working with Highways England on Planning Matters' (2015) guidance paragraph 101, assessments should be carried out for:
    - the development and construction phase
    - the opening year, assuming full build out and occupation
    - and either a date ten years after the date of registration of the associated planning application or the end of the Local Plan period (whichever is greater)
- WSP NH advise that WSP DP ensure any assessments carried out align with those required by National Highways.
- WSP NH would comment that the study area network has a number of junctions which are subject to complex driver behaviour and have the potential for interaction. WSP NH would therefore advise that the starting point for the approach to operational assessment in the Transport Assessment should be full assessment approach used to support the approved development at the site which included micro-simulation modelling.
- It is requested that WSP DP further liaise with LCC (supported by National Highways) to agree the best approach for the revised application (being mindful of the assessment approach required by other applications which are currently progressing through planning). Notwithstanding, the full justification for the approach to the operational assessments of junctions in the study area should be fully evidenced in the Transport Assessment.

TECHNICAL NOTE 1

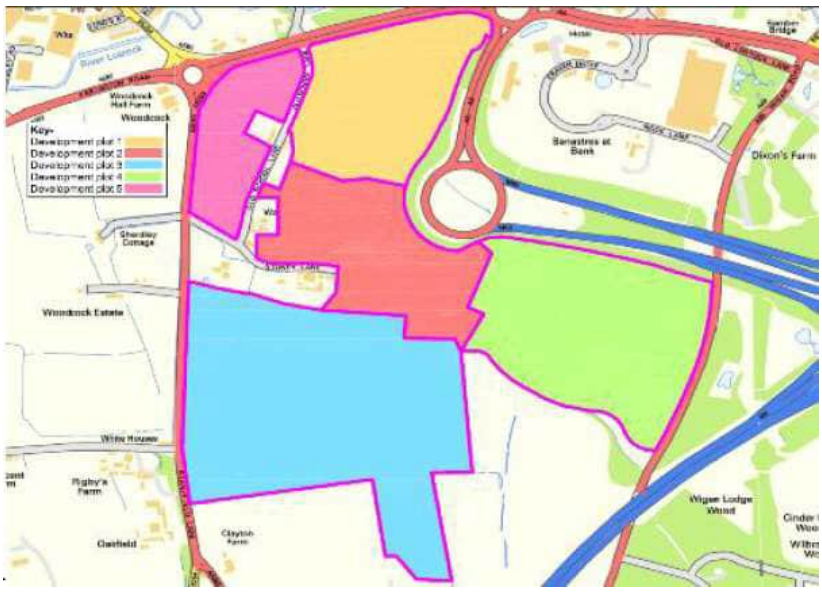
DATE:	06 December 2019	**CONFIDENTIALITY:**	Public
SUBJECT:	Pre-Application Information Review		
PROJECT:	Cuerden Strategic Site	**AUTHOR:**	MJ
CHECKED:	JP	**APPROVED:**	NM

1. INTRODUCTION

Highways England have commissioned WSP to undertake a review of a Pre-Application transport information submission for a proposed mixed use development site at Cuerden, Lancashire. The planning authority are South Ribble Borough Council (SRBC) with Lancashire County Council (SCC) as the highway authority. Lancashire County Council (LCC) are a major land owner and acting as the developer, with support from Mott MacDonald (MM) as transport consultants. The proposed site consists of employment floorspace (Use Classes B1, B2 and B8) and mixed use wider residential development.

The site benefits from planning permission for a mixed use development including employment floorspace (Use Classes B1, B2 and B8), retail development (Use Classes A1 and A3) and wider residential development. Figure 1, extracted from the 2017 Transport Assessment, illustrates the plots of land that make up the Strategic Site.

Figure 1 - Cuerden Strategic Site indicative plots



After receiving planning permission for the site in December 2017, the IKEA retail element of the development no longer wished to proceed. LCC are now seeking pre-application advice on a potential revised application.

This review will consider the new traffic generation and distribution throughout the network as a result of the proposed land use changes, and the impacts to the nearby Strategic Road Network (SRN) junctions through a review of the associated junction models. The following information has been provided by LCC for review:

- Technical Note 'Cureden_External Junction Modelling & Design Update TN_RA_281118'
- J10_M65 Terminus Junction Modelling Technical Note_v1.0
- Drawings Option 1 SH1, Option 1 SH2, Option 2 SH1, Option 2 SH2
- Trip Distribution spreadsheet 'Cuerden Traffic Flow Diagram UpDate V1C Oct 2018 LG'

- Three LinSig Junction Models: M65 terminus (J10), M6 junction 29 North (J5), M6 junction 29 South (J8)
- Vissim model and reports

The technical note 'Cureden_External Junction Modelling & Design Update TN_RA_281118' sets out a brief summary of network improvements required as a result of the junction modelling exercises, with a short introduction into the purpose of the junction modelling.

The trip distribution spreadsheet sets out the development of the junction modelling matrices, however provides no audit trail of how the trip generation or trip distributions have been derived.

The junction models provided are for a future year of 2024 with a scenario where Option 2 is the preferred scheme at the M65 Terminus junction. Two of the models are not accompanied with drawings or any background to understand the process of reaching these junction improvements. Equivalent Base or Do Minimum models have also not been provided to establish the baseline junction performance.

When scoping a new application, the preferred approach is to set out all parameters for a Transport Assessment within a formal scoping note. Any gaps in the information currently provided have been highlighted in this review.

2. BACKGROUND AND PLANNING HISTORY OF THE SITE

In January 2017 a hybrid planning application consisting of a detailed (full) application to support retail development (Use Classes A1 and A3) and associated infrastructure, and an outline application for employment floorspace (Use Classes B1, B2 and B8) and wider residential development, was submitted for the Cuerden Site (planning reference: 07/2017/0211/ORM). At the time a large proportion of the retail element of the application had a known end user that was planned to be a new IKEA site.

WSP, then Mouchel, were commissioned to review the transport submission, on behalf of Highways England, including the associated capacity modelling of the SRN junctions. A mixture of LinSig junction modelling and VISSIM microsimulation modelling was used to assess the SRN junctions within proximity of the site. After an initial review, WSP raised concerns surrounding various elements of the trip generation, trip distribution and modelling.

MM responded to the comments with a Transport Assessment Addendum, which aimed to address the comments previously raised by WSP, document '*Cuerden Strategic Site Transport Assessment Addendum Report*' (August 2017).

As IKEA was the anchor development associated with the site, the submission and approval of the planning application was to an extent driven by timescales surrounding this investment decision. In the spirit of the pro-development approach of Highways England, they were able to provide a swift resolution to the issues surrounding the TA and associated Vissim modelling, as to not unduly delay the application.

The outcome of the review suggested Highways England raise no objection but attach a set of planning conditions to the approval. Below are the conditions suggested by Highways England:

1. No development pursuant to this planning application shall commence unless and until the developer has submitted the following full design and construction details, including all geotechnical and structural design requirements of the required improvements to:

- M65 Terminus Roundabout/Site Access Junction.
- M6 J29/ A6 Lostock Lane/ A6 Church Road Junction.

As shown in outline in drawings attached to the Transport Assessment prepared by the Transportation Consultants, Mott McDonald, dated January 2017.

- How the scheme interfaces with the existing highway alignment, details of the carriageway markings and lane destinations,
- Full signing and lighting details,
- Confirmation of full compliance with current Departmental Standards (DMRB) and Policies (or approved relaxations/departures from standards),

- An independent Stage Two Road Safety Audit (taking account of any Stage One Road Safety Audit recommendations) carried out in accordance with current Departmental Standards (DMRB) and Advice Notes.

2. No development shall be brought into its intended use, unless and until the highway improvements, in accordance with condition 1, have been implemented to the satisfaction of the local highway authority (Lancashire County Council) in consultation with the Secretary of State for Transport.

3. Unless otherwise agreed in writing, prior to commencement of the development pursuant to this planning permission, the developer shall set up the Cuerden Transportation Steering Group (CTSG) by meeting with, as a minimum, representatives of the local planning authority (South Ribble Borough Council) the local highway authority (Lancashire County Council), Highways England, the Contractor and where appropriate the developer highway consultants.

   Prior to the commencement on site, the working group will progress agreement on the detail and programme for all highway measures that influence both the local and strategic highway networks. This working group is to also review further supporting analysis produced by the developer's transport consultant, which is required by both the local highway authority and Highways England prior to the commencement of the second phase of development (covered by outline under Part 2 of the planning application).

   Reason: To assist in ensuring that the mechanism for delivering the necessary highway works (including any relaxations/departures from standards if required) is clearly set out and the detailed design is progressed well in advance of any intention of operating the site by the applicant; and

   to ensure that Highways England, and other bodies, have a formal forum with which to discuss any transportation issues that may arise in the future during the design, construction and operation of the site.

   Informative: It is suggested that the Steering Group should be permanently represented by a member of the following bodies should they wish to attend: South Ribble Borough Council, Lancashire County Council, Highways England and a representative of any Cuerden Development Site management organisation (such as the travel plan co-ordinator for the site immediately before and during operation). Additional members could be invited depending upon the specific issues to be discussed at that point in time.

4. No part of the development hereby approved shall be brought into use unless and until a detailed travel plan is submitted to and approved in writing by the local planning authority (South Ribble Borough Council) in consultation with the local highway authority (Lancashire County Council) and Highways England, and all approved measures have been implemented accordingly.

The site received planning permission with conditions on 20th December 2017. Shortly after receiving permission, IKEA decided not to proceed with their development.

LCC are now proposing a revised development mix with the retail element replaced with employment land use. As part of the pre-application information, LCC have advised that they have not updated and re-run the VISSIM model for the revised land uses. Trip assignment has therefore been undertaken manually in a spreadsheet and the junction assessments for this application have been undertaken using junction modelling software only.

Key Points

Please could LCC clarify the planning strategy for the revised development site, including the schedule of accommodation for the planning application and when the application is planned to be submitted.

Any outstanding matters from the previous planning consent will need to be addressed through any future submission.

3. TRIP GENERATION

The information submitted has not set out the trip generation for any of the plots of land within the development, including the change in land use from Retail to Logistics. Below sets out the trip generation reported in the document '*Cuerden Strategic Site Transport Assessment Addendum Report*' (August 2017).

PLOT 1 BUSINESS PARK

The TA Addendum states trips for the Business Park were mainly derived from TRICS sites. A discount, agreed by LCC, has been applied to the PM trip generation to reflect weekly or fortnightly trips by individuals working at the site to the retail or food and beverage land uses.

If there is a reduction in the retail land on the site use WSP request that the trip reduction for linked trips is reviewed and justified.

PLOT 2 MIXED USE

The TA Addendum sets out the mixed use development trips have been calculated using the TRICS database for a pub/restaurant (800m^2) and retail food (1,800m^2). LCC Highways also provided trip rates for Car Show Rooms in the Lancashire Region.

PLOT 3 MANUFACTURING & DISTRIBUTION

The 2017 TA for the original development quantum at Cuerden Strategic Site, set out the trip generation for the B8 Employment and Residential Land. Due to a lack of similar developments in the TRICS database, MM used existing surveys procured by Brookhouse for the Omega North development near Warrington. The TA Addendum Note acknowledged this approach was reliant on a single survey set and hence these figures have been updated using TRICS trip rates based on a land use division of 25% Industrial Units, 25% Parcel Delivery Warehousing and 50% Commercial Warehousing. Again, a 10% discount has been applied to the PM trips to reflect fortnightly trips of employees to the retail section of the sites, in line with Plot 1.

PLOT 5 RESIDENTIAL

The residential trip generation was calculated based on TRICS data for 100 Residential (C3) units and 46 Extra Care (C2) units.

The above approach to trip generation appears generally reasonable, however WSP previously requested more information surrounding the trip rate derivation for all land uses as well as further explanation behind the reduction in trips applied to Plots 1 and 3. As almost three years have elapsed since the previous application it is suggested all trip rates are reviewed against the latest available information, such as TRICS, to confirm if they remain appropriate for the proposed development land uses and revised development quantum.

PLOT 4 LOGISTICS

The proposed land use of Plot 4 has changed from IKEA retail purposes to logistics B8 land use. It is not stated how the new trip generation for the B8 Logistics has been generated in either the *Technical Note 'Cureden_External Junction Modelling & Design Update TN_RA_281118'* or *'J10_M65 Terminus Junction Modelling Technical Note_v1.0'.* Trip generation values in the distribution spreadsheet do not include how these have been calculated.

WSP request further information regarding how the B8 Logistics trips have been derived. The trip generation for cars and HGVs should be calculated separately where there is a significant, as the nature of the land use results in the generation of a large proportion of HGV trips. These HGV trips may also have a different distribution to light vehicles visiting the site.

Key Points:

Clarity on exact development quantum and land use of all proposed developments.

To avoid information being split across a number of documents, it is suggested that all information supporting the current development proposals is provided in an updated transport submission.

As the work supporting the trip generation is now at least three years old, it is suggested that the trip rates are revisited to confirm if there are any changes if the TRICS assessments are re-run. This is particularly pertinent to the employment (logistics) trip generation as this now forms a larger proportion of the site. Further, this type of land use has seen significant development and changes to the way it operates in recent years therefore more recent information may be available.

Where linked trip assumptions have been applied we request these are reviewed to confirm they remain appropriate with the revised development mix.

The trip generation of the proposed logistics site should be set out in both light and heavy vehicle trips.

4. TRIP DISTRIBUTION

A gravity model has been used to determine the trip distribution for the non-retail elements of the proposed development (B1 office, B2/B8, mixed use sites and residential). Originally, the IKEA trip distribution was derived separately to all of the other land uses within the site, therefore this methodology is still applicable to the current submission.

Journey to Work data from the 2011 Census was used to inform the gravity model. The percentage distribution of traffic accessing the local road network has been summarised in the table below:

Table 1 - Non-retail trip distribution in the vicinity of the site

Route	Arrivals/ Departures (%)
M6 (from/to North)	15
M6 (from/ to South)	12
M65 (from/to East)	22
A6 (from/to North)	6
A6 (from/to South)	9
A582 (from/to West)	26
Wigan Road (from/to North)	2
Wigan Road (from/to South)	5

Three distributions have been derived to represent the travel behaviours of different land uses. These three distributions are as follows:

- Mott MacDonald Distribution and Logistics Distribution – applied to Logistics and Manufacturing (Plot 3 and Plot 5)
- Lancashire County Council Distribution – applied to Business Park (Plot 1) and Mixed Use (Plot 2)
- Mott MacDonald Residential Distribution – applied to residential land use trips (Plot 5)

Other than the information that the distributions have been derived from Travel to Work 2011 Census Data, there is no further explanation or spreadsheet process as to how these distributions have been arrived at. WSP request explanation of the process behind each of the distributions as currently there appears to be a step missing in any audit trail.

WSP have reviewed the spreadsheet '*Cuerden Traffic Flow Diagram UpDate V1C Oct 2018 LG'.* The spreadsheet contains a number of options but our understanding is Option 2 is now the option being taken forward, we have therefore only reviewed this option. Discrepancies are present between the flow departing one junction and arriving at an adjacent junction, when there are no intermediate junctions or land uses where trips could be lost.

WSP noted some manual errors in the spreadsheet cells that have led to some of these issues e.g. cell AG27 that referenced the wrong cell in the distribution spreadsheet, however there are still issues throughout the network and particularly around M6/A6 Junction (J5) where the trips arriving at the SRN are considerably lower than those departing from the adjacent junctions. WSP therefore request LCC review the spreadsheet to ensure traffic flows are consistent between junctions.

The LCC distribution in the spreadsheet appears to still feature a link from the site onto the A49. However, we understand this is no longer proposed. If this is the case it should be removed from the distribution.

In addition, WSP would recommend disaggregating the HGV trips from the B8 and Logistics sites in the overall development (Plot 3 and Plot 4). Unlike cars, HGV movements from logistics sites would be anticipated to be more likely to route to and from the SRN and therefore the routes taken by HGVs, and the impact to the SRN junctions, may not be captured in an aggregate distribution for the whole site.

Key Points

The traffic assignment spreadsheet should be reviewed because flow inconsistencies are present between junctions where this should not be possible.

Provide a clear audit trail on how the distributions have been derived from census data. E.g. the distribution and assignment calculations behind the final distribution in the spreadsheet provided.

The LCC distribution, applied to the Business Park and Mixed-Use development plots, appears to still feature an access on to the A49.

The separate quantification of light and heavy trips for logistics and warehousing development should be undertaken.

5. JUNCTION MODELLING – BASE MODELS

Three LinSig junction models have been provided by LCC with the recent information submission. WSP request a copy of the base and do minimum models for each of the SRN Junctions (M6/M65, M6/A6 and M65 Terminus Junction) to understand the current and future operation of the junctions without development. This will put the future DS operation of the junction into context.

WSP have undertaken an initial review of the models, but if traffic flows are revised they will need to be amended and therefore the models will need to subsequently be reviewed again in more detail.

5.1 Junction Modelling – J5 (M6 / A6 Roundabout)

The M6 / A6 junction has been modelled in LinSig software. The junction has been modelled with some network design changes to the existing junction arrangement. The technical note summarises the network design changes resulting from modelling updates. These are as follows:

- Full signalisation of the junction, reducing the number of lanes on circulatory and north and east approach arms;
- Circulatory – North and south circulatory restored to two lanes (proposed 3 lane arrangement was constrained by the width of the bridges. Signals added to east, south and west circulatory.
- North Arm – Entry arm (M6 off slip) restored to existing 2 lanes relieving the need for significant earthworks.
- East Arm – Proposed left turn running lane removed (insufficient adopted and to accommodate). Signals added, existing kerb line retained.
- South Arm – Signals added, left turn running lane retained.
- West Arm – Signals added to entry arm. Exit arm realigned to provide additional stacking length on west circulatory.

WSP request that the network design changes stated in the Technical Note are provided in the form of a drawing so that we can compare with the junction layout in the model.

- The circulatory lane lengths are the default value of 60 PCU. Whilst WSP do not have a drawing of the proposed design, these lengths are much greater than the existing lengths of the circulatory sections. As there is no drawing of the junction, it is unclear whether the queues will be contained within the storage of the circulatory.
- For all lanes, the saturation flow has been calculated using geometries, RR67. JCT, who produce LinSig, recommend that RR67 is not applied for signalised roundabouts, instead a consistent saturation flow of 1900

PCU/Hr is recommended. This approach should therefore be adopted or if other values are applied these should be justified based on site observations or similar.

5.2 Junction Modelling – J8 (M6/M65 Junction)

The M6/ M65 junction has been modelled in LinSig software. The junction has been modelled with some design changes to the current junction arrangement. The technical note summarises the network design changes resulting from modelling updates. These are as follows:

- Signals added to M6 off slip (towards M65 east) and south circulatory;
- Circulatory – Signals added to south circulatory;
- North Arm – No changes, remains as existing;
- East Arm – No changes, remains as existing;
- South Arm - Signals added to approach arm, existing left turn running lane retained; and
- West Arm – No changes, remains as existing

WSP request that the network design changes stated in the "*Cuerden Strategic Site – Junction Modelling and Concept Design*" Technical Note are provided in the form of a drawing so that we can compare with the junction layout in the model.

An initial review of the model has highlighted the following:

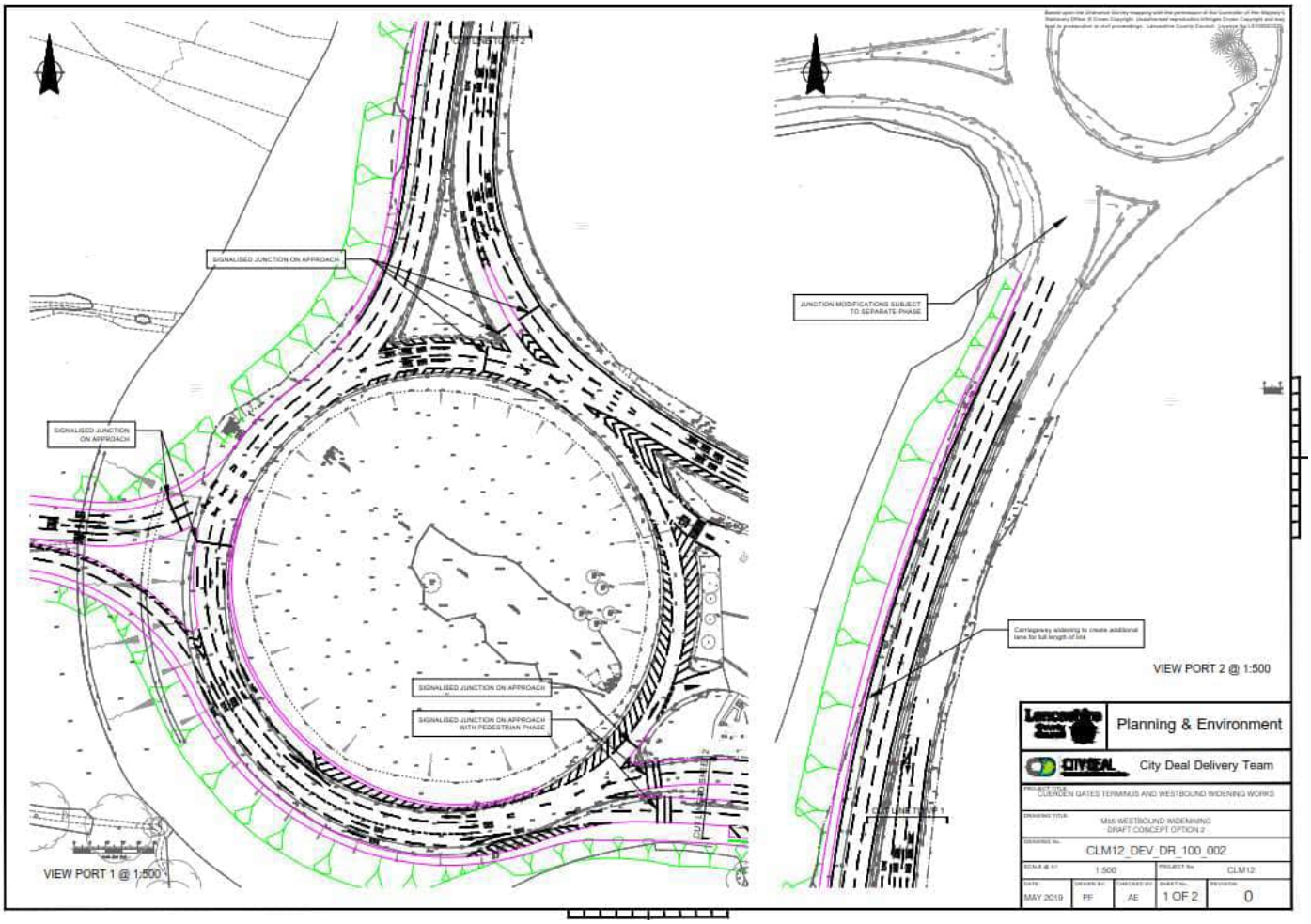
- For all lanes, the saturation flow has been calculated using geometries, RR67. JCT, who produce LinSig, recommend that RR67 is not applied for signalised roundabouts, instead a consistent saturation flow of 1900 PCU/Hr is recommended. This approach should therefore be adopted or if other values are applied these should be justified based on site observations or similar.

5.3 Junction Modelling – J10 (M65 Terminus Junction)

The M65 Terminus junction has been modelled in LinSig software. A technical note '*J10_M65 Terminus Junction Modelling Techincal Note_v1.0*' has been provided, detailing the proposed improvements required to enable the junction to operate within capacity with the introduction of the site access arm to the west.

The design known as Option 2, was the preferred option. The most notable change is the introduction of parallel segregated east approaches from the M65 and M6 to a signal controlled junction. The Strategic Site Access is proposed as a two lane approach with an offside flare. Figure 2 shows the proposed layout.

Figure 2 Proposed Terminus Junction



The J10_M65 Terminus Junction Modelling Technical Note states that the eastern approach is best served if the M6 and M65 are separate arms. It is not clear in the distribution spreadsheet how these flows have been calculated, as the OD matrix shows a single approach from the M65/M6. WSP request more clarification on the methodology used to disaggregate the flows from the eastern approach.

WSP have undertaken an initial review of the model and this has highlighted the following:

- Saturation flows of 2220 have been directly entered into the model. JCT recommend 1900 PCU per hour at signal controlled roundabouts and therefore this approach should be adopted as a standard approach.
- In the AM, an excess internal queue is shown on Arm 11 “West circulatory “with a queue of 30.9 PCUs in lanes with combined length of 20 PCUs. This queue could block movements around the circulatory and lead to worse than reported junction performance.
- During the AM peak, the M65 East approach and M6 East approach operate over practical capacity, with Degree of Saturation above 90%. This reduces the typical 10% capacity buffer at signal junctions. Queues can rise rapidly once junctions exceed practical capacity and this therefore gives cause for concern about queueing towards the SRN.

Key Points

Subject to previous comments about the trip generation and distribution, traffic flows in the junction models will need to be updated.

For a development impact review, we expect to receive the following models:

- **Base model of the existing network**
- **Opening year model without development**
- **Opening year model with development**

WSP request the Degree of Saturation (DoS) and Queue outputs are reported for each model and scenario.

The saturation flow methodology should be consistent for each junction model. As stated in text, JCT recommend the RR67 approach is not used for signalised roundabouts. Instead, a value of 1900 PCU/Hr is recommended as a starting point. WSP therefore suggest 1900 saturation flows are adopted for the LinSig models.

6. CONCLUSION

Highways England have commissioned WSP to undertake a review of the pre-application information provided by LCC for the development of the Cuerden Strategic Site. WSP have reviewed the pre-application information and require further information to fully understand the impact to the SRN. The key findings of this review are summarised as follows:

- Clarify the planning strategy for the revised development site, including the schedule of accommodation for the planning application and when the application is planned to be submitted.
- To avoid information being split across a number of documents, it is suggested that all information supporting the current development proposals is provided in an updated transport submission.
- As the work supporting the trip generation is now at least three years old, it is suggested that the trip rates are revisited to confirm if there are any changes if the TRICS assessments are re-run. This is particularly pertinent to the employment (logistics) trip generation as this now forms a larger proportion of the site. Further, this type of land use has seen significant development and changes to the way it operates in recent years therefore more recent information may be available.
- Where linked trip assumptions have been applied we request these are reviewed to confirm they remain appropriate with the revised development mix.
- Provide a clear audit trail on how the distributions have been derived from census data. E.g. the distribution and assignment calculations behind the final distribution in the spreadsheet provided.
- The traffic assignment spreadsheet should be reviewed because flow inconsistencies are present between junctions where this should not be possible.
- The LCC distribution, applied to the Business Park and Mixed-Use development plots, appears to still feature an access on to the A49.
- The separate quantification of light and heavy trips for logistics and warehousing development should be undertaken.
- Subject to previous comments about the trip generation and distribution, traffic flows in the junction models will need to be updated.
- We expect to receive the following models to understand the development impact for review:
  -Base Model of the existing network
  -Opening year base model without development
  -Opening year model with development
  WSP request the Degree of Saturation (DoS) and Queue outputs are reported for each model and scenario.
- The saturation flow methodology should be consistent for each junction model. As stated in text, JCT recommend the RR67 approach is not used for signalised roundabouts. Instead, a value of 1900 PCU/Hr is recommended as a starting point. WSP therefore suggest 1900 saturation flows are adopted for the LinSig models.

MEETING NOTES

PROJECT NUMBER	70082141 and 70084465	**MEETING DATE**	05 January 2022
PROJECT NAME	Farington Cricket / Lancashire Central	**VENUE**	Microsoft Teams
CLIENT	Eric Wright Group / Maple Grove	**RECORDED BY**	AL
MEETING SUBJECT	Farington Cricket / Lancashire Central Transport Assessment Work		

PRESENT	Adam Leary (AL), Jim Outterside (JO), Hannah Barrett (HB) - WSP Chris Dyson (CD), Emma Prideaux (EP), Fayaz Laly (FL) - Lancashire County Council Strategic Development Neil Stevens (NS) - LCC Highways Development Control James Scott (JS) - Maple Grove James Royle (JR) - Chroma
APOLOGIES	Paul Newton (Barton Willmore)
DISTRIBUTION	As above plus:
CONFIDENTIALITY	**Restricted**

1 Programme

- JR outlined the programme for the Farington cricket proposal which is driven by the need to prepare wickets in Summer 2022. The intention is for a planning application to be submitted w/c 31st Jan
- JS stated that the planned submission date for the Lancashire Central site is early March
- NS made reference to the submitted and recently refused application for Pickerings Farm and confirmed that the applicants have 6 months to appeal that decision. A potential appeal would fall within the likely determination periods for both the Farington cricket and Lancs Central applications

2 Completeness of microsimulation data.

- WSP do not have the base model (i.e. the model that would have been calibrated and validated against observed conditions)
- WSP have requested this from Warren Hilton @ National Highways
- If WSP is unable to obtain this base model it could make use of the future year models however this is not best practice and would need assurance from LCC and National Highways that they are happy with this approach.
- Whilst NS stated that it is not standard practice to not use a future year model it was acknowledged that this approach could be acceptable if it is not possible to obtain the base models
- WSP to chase with National Highways and to explore whether the base model can be obtained from Mott MacDonald, who undertook the original modelling for Cuerden on behalf of Maple Grove/LCC.
- WSP to set out proposed modelling approach to NS.

3 Issues arising in relation to accessing the data.

- JO confirmed that the models are dated now, developed in Vissim 5.4 a version of the software from 2013 and the WSP modelling team have issues with compatibility over later versions of VISSIM (which can't open the models). Therefore, a limited number of people/machines that can undertake the work. Whilst this is an internal issue for WSP to resolve, there may be an impact on timescales for delivery

4 Application of the microsimulation data.

- The models cover the AM and PM weekday periods of (07:30 – 08:30 and 16:30-17:30)

- From a Farington Cricket perspective, WSP do not consider that car trips in and out of the site in these periods will be anything more than negligible, both for regular training sessions in the summer and for larger event days. AL stated that this would be explained and described in the TA, but made the point that due to the application timescales and the modelled time periods expected not to coincide with significant activity into and out of the Farington site, Vissim modelling would not be included within the submitted Transport Assessment
- NS noted this and made the point that this risk sat with the applicant and the Vissim modelling might be amongst post submission recommendations depending on his review of the TA. One issue to note in particular would be the degree to which the large match day events start and finish times could be guaranteed to fall outside of peak hours. If flexibility is required on this the possibility of Vissim evidence being required could increase.
- Subject to some of the technical issues referred to under completeness of Microsmulation data – the intention would be for the TA for Lancashire Central to incorporate the results of the Vissim modelling

5 Overall TA interface between the Lancashire Central and Farington sites

- An agreed position on this is dependent on the timescales for the application. Based on the programme timescales referred to above, Farington cricket would view the consented Cuerden scheme as a committed development. When the Lancs Central TA is submitted, this would likely include reference to Farington Cricket as an expected development, as it would be a live, but undetermined, planning application
- NS understood and considered this approach appropriate

6 Approach to Cuerden permission as a committed development within the Farington TA

- As mentioned above, based on the planned submission dates the Farington cricket TA would consider the consented Cuerden scheme as a committed development. Given that the potential revised application includes proposed uses which are likely to reduce the site's trip generation, particularly at peak times, WSP may wish to include a written narrative on what the application might incorporate (this would need to be confirmed with Maple Grove to ensure that the narrative is representative of the anticipated scheme).

NEXT MEETING

NS suggested a number of periodic follow up meetings be arranged after the Farington application has been submitted to discuss the TA. NS requested a printed hard copy of the TA document for both schemes.

POST MEETING NOTE

WSP received some additional VISSIM modelling files from National Highways on Friday 7th January 2022. WSP will review the content of these files and confirm whether they include the base model files which could then be used.

Appendix B

ACCIDENT DATA SUMMARY

Highway Safety Appraisal

DATE:	06 June 2022	**CONFIDENTIALITY:**	Public
SUBJECT:	Lancashire Collision Data Review		
PROJECT:	Lancashire Central, Cuerden	**AUTHOR:**	Xinzhu Zhang
CHECKED:	HB	**APPROVED:**	HB

1 LINK ANALYSIS

This section summarises the findings of the highway safety appraisal undertaken for the highway network surrounding the Lancashire Central development site. This section summarises collisions reported on links between junctions, whereas Section 2 summaries collisions reported at junctions. The latest 6 years' worth of Personal Injury Accident Data (PIA) was supplied by Lancashire County Council for the period of 1st January 2016 to 15th September 2021. Figure 1 displays the locations of the links, junctions and collisions.

1.1 Link 1 Watkin Lane

Link 1, Watkin Lane, is located to the north of Junction 1. Over the study period, four collisions were recorded including three slight and one serious, a summary of which can be found in Table 1. All four collisions occurred in daylight hours. They occurred at various times throughout the year. Reported causes of the three slight collisions include drivers failing to look properly, being distracted, or misjudging the road conditions in wet weather. The serious collision involved both a car and an 11-year-old pedestrian, when a child ran into the carriageway from between parked cars and the oncoming vehicle did not stop in time.

Table 1: Summary of Collisions along Link 1

Severity	2016	2017	2018	2019	2020	2021	Total
Slight	*1*	*1*	*1*	*0*	*0*	*0*	*3*
Serious	*0*	*0*	*0*	*1*	*0*	*0*	*1*
Fatal	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Total	**1**	**1**	**1**	**1**	**0**	**0**	**4**

Source: Lancashire Central PIA Stats

1.2 Link 2 Farrington Rd A582

Link 2, A582 Farrington Rd, is to the west of Junction 1 and no collisions were reported over the study period.

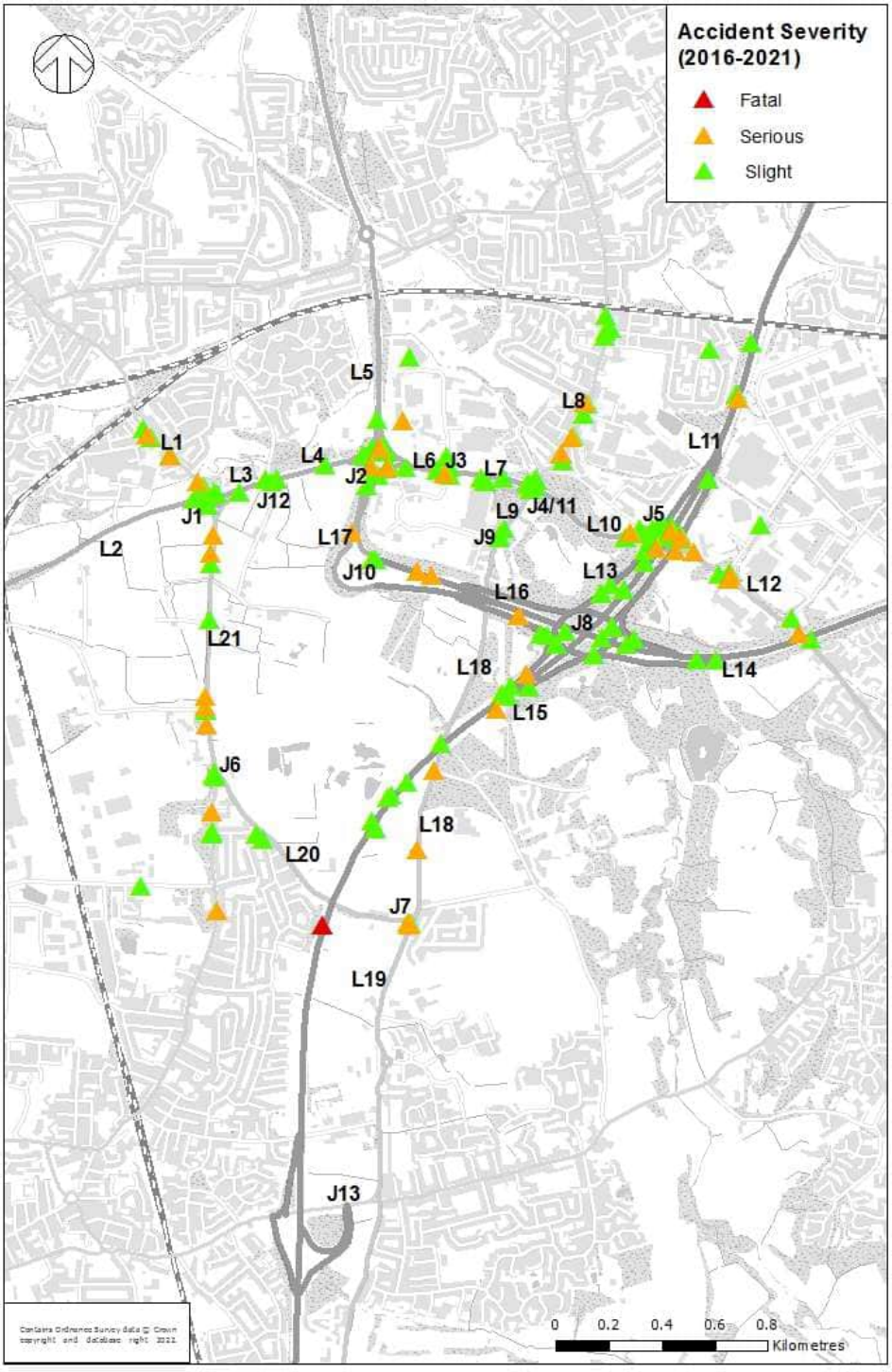
1.3 Link 3 A582 Between Junction 1 and Junction 12

Link 3, the A582, is located east of Junction 1 and west of Junction 12. Over the study period one collision was recorded, which occurred in February 2016. The collision involved three cars and the cause states that the driver failed to look properly and was driving aggressively.

Highway Safety Appraisal

DATE:	06 June 2022	**CONFIDENTIALITY:**	Public
SUBJECT:	Lancashire Collision Data Review		
PROJECT:	Lancashire Central, Cuerden	**AUTHOR:**	Xinzhu Zhang
CHECKED:	HB	**APPROVED:**	HB

Figure 1: Overview Accident Severity Map displaying the location of Links and Junctions



1.4 Link 4 A582 Between Junction 12 and Junction 2

Link 4, A582, is located east of Junction 12 and west of Junction 2. Over the study period two slight collisions were recorded, as summarised in Table 2. Both collisions occurred in daylight hours. One was during dry and fine weather conditions, and the second occurred on a wet road in December. The cause given was that the driver failed to judge the other's speed and changed lanes without looking.

Table 2: Summary of Collisions along Link 4

Severity	2016	2017	2018	2019	2020	2021	Total
Slight	*0*	*1*	*0*	*0*	*1*	*0*	*2*
Serious	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Fatal	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Total	**0**	**1**	**0**	**0**	**1**	**0**	**2**

Source: Lancashire Central PIA Stats

1.5 Link 5 A6 London Way

Link 5, A6 London Way, is located to the north of Junction 2 and no collisions were reported over the study period.

1.6 Link 6 A6 Lostock Ln Between Junction 2 and Junction 3

Link 6, A6 Lostock Ln, is located to the east of Junction 2 and west of Junction 3. Over the study period one slight collision was recorded, in January 2020. The weather conditions were fine, and it occurred at midday. The slight collision involved a goods vehicle and a car. The cause given was careless, reckless or hurried driving while allegedly giving way to an emergency vehicle.

1.7 Link 7 A6 Lostock Ln Between Junction 3 and Junction 4/11

Link 7, A6 Lostock Ln, is located to the east of Junction 3 and west of Junction 4/11. Over the study period one slight collision was recorded, in February 2018. The surface and weather conditions were fine and dry, and it involved 3 cars. The cause was reported to be due to a distracted driver who failed to slow down and stop in time at a queue of traffic.

1.8 Link 8 B6258 Station Rd

Link 8, B6258 Station Rd, is located to the north of Junction 4/11. Over the study period one slight collision was recorded, on a morning in October 2017 during wet weather. The cause of the collision was reported to be a motorcycle rider failing to look properly, resulting in a pedestrian was hit whilst walking across the pelican crossing.

1.9 Link 9 A49 Wigan Rd Between Junction 9 and Junction 11

Link 9, A49 Wigan Rd, stretches from just south of Junction 4/11 to north of Junction 9. Over the study period, four collisions were recorded; a summary of which can be found in Table 3. The four slight collisions all involved cars, and one included a bicycle. One collision occurred when a car turned right and collided with an oncoming vehicle travelling in opposite direction. The remaining three were reported to be rear end shunt collisions and were reported to be caused by drivers failing to judge the other motorists' speed or failing to look properly.

Table 3: Summary of Collisions along Link 9

Severity	2016	2017	2018	2019	2020	2021	Total
Slight	*1*	*0*	*1*	*1*	*1*	*0*	*4*
Serious	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Fatal	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Total	**1**	**0**	**1**	**1**	**1**	**0**	**4**

Source: Lancashire Central PIA Stats

1.10 Link 10 A6 Lostock Ln Between Junction 4/11 and Junction 5

Link 10, A6 Lostock Ln, is located to the east of Junction 4/11 and west of Junction 5. Over the study period three collisions were recorded. A summary can be found in Table 4. Two slight collisions occurred, both involving motorcycles. The cause for both is noted as the rider losing control on account of inexperience.

One serious collision occurred in the morning in July 2020. A motorist drove into a left filter lane at the traffic lights whilst an HGV was travelling through the lights parallel to the motorist's lane. The HGV moved into the near side lane to turn left further along without seeing the vehicle.

Table 4: Summary of Collisions along Link 10

Severity	2016	2017	2018	2019	2020	2021	Total
Slight	*1*	*1*	*0*	*0*	*0*	*0*	*2*
Serious	*0*	*0*	*0*	*0*	*1*	*0*	*1*
Fatal	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Total	**1**	**1**	**0**	**0**	**1**	**0**	**3**

Source: Lancashire Central PIA Stats

1.11 Link 11 M6 North of Junction 5

Link 11, M6, is situated to the north of Junction 5. Over the study period, nine collisions were recorded: eight slight and one serious. A summary can be found in Table 5. Three slight collisions were caused by extremely inclement weather (raining, frost, snow), in which the drivers lost control on a slippery road. The remaining recorded slight collisions occurred during the daytime, and cars, motorcycle and goods vehicles were involved. The causes given are a driver undertaking an unsafe turn or manoeuvre, failing to judge other road users' speed and a driver experiencing a medical episode whilst negotiating a roundabout.

The one serious collision occurred in June 2021 and the cause recorded is driver fatigue. The vehicle left the carriageway clipping the nearside barrier before rolling and coming to rest on its wheels.

Table 5: Summary of Collisions along Link 11

Severity	2016	2017	2018	2019	2020	2021	Total
Slight	*0*	*1*	*2*	*1*	*2*	*2*	*8*
Serious	*0*	*0*	*0*	*0*	*0*	*1*	*1*
Fatal	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Total	**0**	**1**	**2**	**1**	**2**	**3**	**9**

Source: Lancashire Central PIA Stats

1.12 Link 12 A6 Church Rd

Link 12, A6 Church Rd, is located east of junction 5. Over the study period one slight collision was recorded. The reported cause was the driver failing to look properly, judge the other motorist's speed and undertaking an illegal turn whilst a vehicle exited the roundabout and collided with the vehicle turning right into the nearside.

1.13 Link 13 M6 Between Junction 5 and Junction 8

Link 13, M6, is located south of Junction 5 and north of Junction 8. Over the study period five collisions were recorded: four slight and one serious. A summary can be found in Table 6. A slight collision occurred when a vehicle travelled too fast on surface ice, causing several other vehicles to brake and lose control. The other slight collisions were reported to be caused by drivers failing to look properly or careless driving.

The one serious collision reported occurred when an HGV braked too heavily and jack-knifed when it approached the slow-moving traffic ahead. The driver lost control of the vehicle and collided with another HGV's nearside, and the front seat passenger was seriously injured.

Table 6: Summary of Collisions along Link 13

Severity	2016	2017	2018	2019	2020	2021	Total
Slight	*2*	*0*	*1*	*0*	*0*	*1*	*4*
Serious	*0*	*0*	*1*	*0*	*0*	*0*	*1*
Fatal	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Total	**2**	**0**	**2**	**0**	**0**	**1**	**5**

Source: Lancashire Central PIA Stats

1.14 Link 14 M65

Link 14, M65, is located east of Junction 8. Over the study period one slight collision was recorded. It happened at 15:38 on a Sunday in June 2021 with good weather and surface conditions. The reported cause was the driver failing to look properly, colliding with the back end of a vehicle, and spinning it around.

1.15 Link 15 M6

Link 15, M6, is located south of Junction 8. Over the study period, 12 collisions were recorded - 10 slight, one serious and one fatal. A summary can be found in Table 7. They occurred various times throughout the year, weather conditions and times of day. All involved cars with three slight collisions also involving several heavy goods vehicles and a motorcycle. The likely causation factor given for the slight collisions were a variety of rear end collisions, failure to judge others path speed and not looking properly. According to the records, four of the slight collisions as well as one of the serious collisions were related to the loss of control of the vehicle.

The fatal collision occurred at 13:27 on 24th October 2016 in fine weather conditions and involved an HGV. The provided causation is that the driver is believed to have suffered a medical episode at the wheel whilst traveling, which resulting in the vehicle colliding the central barrier and nearside barrier before coming to a stop.

Table 7: Summary of Collisions along Link 15

Severity	2016	2017	2018	2019	2020	2021	Total
Slight	*5*	*0*	*1*	*2*	*1*	*1*	*10*
Serious	*0*	*0*	*0*	*1*	*0*	*0*	*1*
Fatal	*1*	*0*	*0*	*0*	*0*	*0*	*1*
Total	**6**	**0**	**1**	**3**	**1**	**1**	**12**

Source: Lancashire Central PIA Stats

1.16 Link 16 M65

Link 16, M65, is located between Junction 8 and Junction 10. Over the study period, five collisions were recorded: three slight and two serious. A summary can be found in Table 8. The collisions all occurred in fine weather. The majority occurred in daylight hours apart from a slight collision which occurred at 17:20 with streetlights present and lit. Cars were involved in all collisions, two involved HGVs and one involved a motorcycle. Two slight collisions were caused by drivers failing to look properly and judge other road users' speed, while the other slight collision was caused by a motorist in a stolen vehicle conducting an illegal U-turn on a motorway slip road in excess of the speed limit.

The cause given for one of the serious collisions was that the driver lost control of the vehicle and collided with a lamppost and the hard shoulder after a tyre blow out. The other serious collision occurred in the morning on 30th May 2021 and was caused by drunk driving of a motorcycle.

Table 8: Summary of Collisions along Link 16

Severity	2016	2017	2018	2019	2020	2021	Total
Slight	*2*	*0*	*0*	*0*	*1*	*0*	*3*
Serious	*0*	*0*	*0*	*0*	*1*	*1*	*2*
Fatal	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Total	**2**	**0**	**0**	**0**	**2**	**1**	**5**

Source: Lancashire Central PIA Stats

1.17 Link 17 M65 Between Junction 2 and Junction 10

Link 17, M65, is located south of Junction 2 and north of Junction 10. Over the study period three collisions were recorded: two slight and one serious. A summary can be found in Table 9. All three collisions occurred during the daytime in May or October with fine weather. A slight collision on 5th October was reportedly a hit and run. The offending motorist nudged a second vehicle three times causing the damage of the engine, tyre and alloy wheel. The serious collision occurred when a motorcycle rider was speeding and attempting to turn left to exit the motorway and lost control.

Table 9: Summary of Collisions along Link 17

Severity	2016	2017	2018	2019	2020	2021	Total
Slight	*0*	*0*	*0*	*1*	*1*	*0*	*2*
Serious	*0*	*1*	*0*	*0*	*0*	*0*	*1*
Fatal	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Total	**0**	**1**	**0**	**1**	**1**	**0**	**3**

Source: Lancashire Central PIA Stats

1.18 Link 18 Wigan Rd Between Junction 7 and Junction 9

Link 18, Wigan Rd, is located between Junction 7 and Junction 9. Over the study period two serious collisions were recorded. A summary can be found in Table 10. Both collisions occurred in the daytime of February with fine weather condition. The causes of these two collisions state that the motorcycle riders lost control of their vehicles.

Table 10: Summary of Collision along Link 18

Severity	2016	2017	2018	2019	2020	2021	Total
Slight	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Serious	*0*	*0*	*1*	*1*	*0*	*0*	*2*
Fatal	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Total	**0**	**0**	**1**	**1**	**0**	**0**	**2**

Source: Lancashire Central PIA Stats

1.19 Link 19 A49 Wigan Rd Between Junction 7 and Junction 13

Link 19, A49 Wigan Rd, is located south of junction 7 north of Junction 13. No collisions were recorded over the study period.

1.20 Link 20 A5083 Lydiate Ln Between Junction 6 and Junction 7

Link 20, A5083 Lydiate Ln, is located east of junction 6 west of Junction 7. No collisions were recorded over the study period.

1.21 Link 21 Stanifield Ln Between Junction 1 and Junction 6

Link 21, Stanifield Ln, is located south of Junction 1 and north of Junction 6. Over the study period five collisions have been recorded: one slight and four serious. A summary can be found in Table 11. They occurred at various times throughout the year between June and December and at various times of day. The surface conditions were mainly dry. At the time of one collision, it was raining and in the case of another oil or diesel was allegedly on the road. The likely causes identified for the collisions were a driver failing to account for a wet or slippery road (2), sudden braking (1), driver fatigue (1) and the driver using a mobile phone (1).

Table 11: Summary of Collisions along Link 21

Severity	2016	2017	2018	2019	2020	2021	Total
Slight	*0*	*1*	*0*	*0*	*0*	*0*	*1*
Serious	*0*	*1*	*2*	*0*	*0*	*1*	*4*
Fatal	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Total	**0**	**2**	**2**	**0**	**0**	**1**	**5**

Source: Lancashire Central PIA Stats

Overall, while any road collision is regrettable, it is not considered there are any significant clusters or patterns of accidents on highway links local to the site above and beyond those that might reasonably be expected given the nature and scale of the local highway network.

2 JUNCTION ANALYSIS

This section summarises the findings of the highway safety appraisal undertaken for the surrounding junctions on the local highway network. An analysis of the collision data from 1st January 2016 to 15th September 2021 was undertaken at junctions 1 to 13. A summary of the findings is given below.

2.1 Junction 1 A582/Lostock Lane

An analysis of the collision data Junction 1 A582/Lostock Lane is summarised in Table 12. A total of eight collisions were reported over the study period: seven slight and one serious.

Table 12: Severity & Year of Collision on Junction 1 A582/Lostock Lane

Severity	2016	2017	2018	2019	2020	2021	Total
Slight	*1*	*2*	*3*	*1*	*0*	*0*	*7*
Serious	*0*	*0*	*0*	*0*	*1*	*0*	*1*
Fatal	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Total	**1**	**2**	**3**	**1**	**1**	**0**	**8**

Source: Lancashire Central PIA Stats

The light condition data during the collisions can be found in Table 13 and weather conditions can be found in Table 14. There is only one slight collision occurring during darkness with streetlights present and lit, and 2 slight collisions happened while it was raining. The serious collision took place at noon with fine weather conditions.

Table 13: Light conditions on Junction 1 A582/Lostock Lane

Light Condition	No of collisions
Light	*7*
Dark	*1*
Total	**8**

Source: Lancashire Central PIA Stats

Table 14: Road Surface conditions on Junction 1 A582/Lostock Lane

Road Surface	No of collisions
Wet	*2*
Dry	*6*
Total	**8**

Source: Lancashire Central PIA Stats

Cars are involved in most of the reported collisions, whilst three collisions involved motorcycles and two involved HGVs. The reported causes for the slight collisions are various, including junction overshoot, tailgating and failure to stop, reckless driving, misjudgement and the driver not paying due care and attention. The reported cause of the serious collision is a motorcycle rider failing to judge the path of another vehicle.

2.2 Junction 2 A6/A582

An analysis of the collision data Junction 2 A6/A582 is summarised in Table 15. Out of the total 18 collisions, four were serious and fourteen were slight.

Table 15: Severity & Year of Collision on Junction 2 A6/A582

Severity	2016	2017	2018	2019	2020	2021	Total
Slight	*5*	*4*	*3*	*0*	*0*	*2*	*14*
Serious	*0*	*1*	*0*	*2*	*0*	*1*	*4*
Fatal	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Total	**5**	**5**	**3**	**2**	**0**	**3**	**18**

Source: Lancashire Central PIA Stats

The light condition data during the collisions can be found in Table 16 and weather conditions can be found in Table 17. Eight collisions occurred during darkness and half of the collisions occurred on wet roads. Among the serious collisions, only one of them was on a wet road with streetlights lit in the evening.

Table 16: Light conditions on Junction 2 A6/A582

Light Condition	No of collisions
Light	*10*
Dark	*8*
Total	**18**

Source: Lancashire Central PIA Stats

Table 17: Road Surface conditions on Junction 2 A6/A582

Road Surface	No of collisions
Wet	*9*
Dry	*9*
Total	**18**

Source: Lancashire Central PIA Stats

Out of the 18 collisions, 10 were rear end shunts, accounting for more than half of the total. All the collisions involved cars, whilst motorcycle and bicycle users, and pedestrians were involved in 5 collisions.

2.3 Junction 3 A6/Cuerden Way/Craven Drive

An analysis of the collision data Junction 3 A6/Cuerden Way/Craven Drive is summarised in Table 18. A total of six collisions occurred, one serious and five slight.

Table 18: Severity & Year of Collision on Junction 3 A6/Cuerden Way/Craven Drive

Severity	2016	2017	2018	2019	2020	2021	Total
Slight	*2*	*1*	*1*	*0*	*0*	*1*	*5*
Serious	*0*	*1*	*0*	*0*	*0*	*0*	*1*
Fatal	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Total	**2**	**2**	**1**	**0**	**0**	**1**	**6**

Source: Lancashire Central PIA Stats

Light condition data during the collisions can be found in Table 19 and weather conditions can be found in Table 20. All collisions occurred on dry roads. Only one collision took place in darkness with streetlights present and lit.

Table 19: Light conditions on Junction 3 A6/Cuerden Way/Craven Drive

Light Condition	No of collisions
Light	*5*
Dark	*1*
Total	**6**

Source: Lancashire Central PIA Stats

Table 20: Road Surface conditions on Junction 3 A6/Cuerden Way/Craven Drive

Road Surface	No of collisions
Wet	*0*
Dry	*6*
Total	**6**

Source: Lancashire Central PIA Stats

The slight collisions that took place were reported as rear end shunts. The cause given for the serious collision which occurred at night, is that a taxi driver didn't secure the passenger's wheelchair and drove too fast, leading a serious head injury.

2.4 Junction 4 and Junction 11 A6/Wigan Road

An analysis of the collision data Junction 4&11 A6/Wigan Road is summarised in Table 21. A total of 8 collisions took place and all were of slight severity.

Table 21: Severity & Year of Collision on Junction 4 and Junction 11 A6/Wigan Road

Severity	2016	2017	2018	2019	2020	2021	Total
Slight	*1*	*4*	*2*	*1*	*0*	*0*	*8*
Serious	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Fatal	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Total	**1**	**4**	**2**	**1**	**0**	**0**	**8**

Source: Lancashire Central PIA Stats

The highest number of collisions took place in 2017 with 4 collisions, while no collisions were recorded in 2020 or 2021. The light condition data during the collisions can be found in Table 22, and weather conditions can be found in Table 23. Almost half of the collisions (3) occurred in darkness and 3 collisions occurred whilst it was raining.

Table 22: Light conditions on Junction 4 and Junction 11 A6/Wigan Road

Light Condition	No of collisions
Light	*5*
Dark	*3*
Total	**8**

Source: Lancashire Central PIA Stats

Table 23: Road Surface conditions on Junction 4 and Junction 11 A6/Wigan Road

Road Surface	No of collisions
Wet	*3*
Dry	*5*
Total	**8**

Source: Lancashire Central PIA Stats

Most of the collisions (6 out of 8) at Junctions 4&11 involved rear end shunts, and the remaining recorded slight collisions were caused by the driver's misjudgement. Besides cars, an HGV, a motorcycle, and pedestrian were involved in the various collisions.

2.5 Junction 5 A6/M6/Church Road

An analysis of the collision data at Junction 5 A6/M6/Church Road is summarised in Table 24. A total of 18 collisions occurred over the six years. Of these collisions, four were serious and the remaining 14 were slight.

Table 24: Severity & Year of Collision on Junction 5 A6/M6/Church Road

Severity	2016	2017	2018	2019	2020	2021	Total
Slight	*5*	*3*	*4*	*0*	*2*	*0*	*14*
Serious	*1*	*0*	*1*	*2*	*0*	*0*	*4*
Fatal	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Total	**6**	**3**	**5**	**2**	**2**	**0**	**18**

Source: Lancashire Central PIA Stats

The light condition data during the collisions can be found in Table 25 and weather conditions can be found in Table 26. Four collisions occurred in darkness and four occurred while it was raining. All serious collisions took place in the daytime and only one on a wet road.

Table 25: Light conditions on Junction 5 A6/M6/Church Road

Light Condition	No of collisions
Light	*14*
Dark	*4*
Total	**18**

Source: Lancashire Central PIA Stats

Table 26: Road Surface conditions on Junction 5 A6/M6/Church Road

Road Surface	No of collisions
Wet	*4*
Dry	*14*
Total	**18**

Source: Lancashire Central PIA Stats

Almost half of the collisions were caused by driving too fast (6) or following too close (2) and resulted in rear end shunts (8). Three serious collisions were related to careless or aggressive driving.

2.6 Junction 6 B5254/A5083

An analysis of the collision data at Junction 6 B5254/A5083 is summarised in Table 27. A total of six collisions occurred over the six years and were all slight.

Table 27: Severity & Year of Collision on Junction 6 B5254/A5083

Severity	2016	2017	2018	2019	2020	2021	Total
Slight	*2*	*1*	*2*	*0*	*1*	*0*	*6*
Serious	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Fatal	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Total	**2**	**1**	**2**	**0**	**1**	**0**	**6**

Source: Lancashire Central PIA Stats

The light condition data during the collisions can be found in Table 28, and weather conditions can be found in Table 29. No collisions occurred in darkness and only one collision occurred while it was raining. There seems to be no trend regarding the weather or quality of lighting.

Table 28: Light conditions on Junction 6 B5254/A5083

Light Condition	No of collisions
Light	*6*
Dark	*0*
Total	**6**

Source: Lancashire Central PIA Stats

Table 29: Road Surface conditions on Junction 6 B5254/A5083

Road Surface	No of collisions
Wet	*1*
Dry	*5*
Total	**6**

Source: Lancashire Central PIA Stats

Four of the collisions involved rear ends shunts with the driver failing to look properly. The remaining two collisions happened when the drivers were going to turn at the junction and collided with an oncoming vehicle or cyclist on their nearside.

2.7 Junction 7 A49/B5083

An analysis of the collision data at Junction 7 A49/B5083 is summarised in Table 30. Junction 7 A49/B5083. A total of five collisions occurred over the six years with two serious and three slight.

Table 30: Severity & Year of Collision on Junction 7 A49/B5083

Severity	2016	2017	2018	2019	2020	2021	Total
Slight	*2*	*0*	*1*	*0*	*0*	*0*	*3*
Serious	*1*	*0*	*0*	*0*	*0*	*1*	*2*
Fatal	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Total	**3**	**0**	**1**	**0**	**0**	**1**	**5**

Source: Lancashire Central PIA Stats

The highest number of collisions occurred in 2016 with 2 slight and 1 serious, accounting for more than half during the study period. The light condition data during the collisions can be found in Table 31, and weather conditions can be found in Table 32. All recorded collisions occurred with fine weather, while the 2 serious collisions both occurred in darkness with streetlights present and lit.

Table 31: Light conditions on Junction 7 A49/B5083

Light Condition	No of collisions
Light	*3*
Dark	*2*
Total	**5**

Source: Lancashire Central PIAStats

Table 32: Road Surface conditions on Junction 7 A49/B5083

Road Surface	No of collisions
Wet	*0*
Dry	*5*
Total	**5**

Source: Lancashire Central PIA Stats

The cause of more than half of the collisions (3 out of 5) was a driver executing a poor or illegal manoeuvre. The other serious collision was caused by a driver under the influence of drugs disregarding traffic signals and speeding.

2.8 Junction 8 M65/M6

An analysis of the collision data at Junction 8 M65/M6 is summarised in Table 33. A total of 13 collisions took place over the 6-year study period. Of the collisions reported two were serious and 11 were of slight severity.

Table 33: Severity & Year of Collision on Junction 8 M65/M6

Severity	2016	2017	2018	2019	2020	2021	Total
Slight	*2*	*5*	*4*	*0*	*0*	*0*	*11*
Serious	*0*	*1*	*1*	*0*	*0*	*0*	*2*
Fatal	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Total	**2**	**6**	**5**	**0**	**0**	**0**	**13**

Source: Lancashire Central PIA Stats

All collisions occurred from 2016 to 2018 and no collision has been recorded since 2019 during the study period. The light condition data during the collisions can be found in Table 34 and weather conditions can be found in Table 35. Most of the recorded collisions occurred in daytime with fine weather. One collision took place on a rainy day and two collisions in darkness with streetlights present and lit.

Table 34: Light conditions on Junction 8 M65/M6

Light Condition	No of collisions
Light	*11*
Dark	*2*
Total	**13**

Source: Lancashire Central PIA Stats

Table 35: Road Surface conditions on Junction 8 M65/M6

Road Surface	No of collisions
Wet	*1*
Dry	*12*
Total	**13**

Source: Lancashire Central PIA Stats

Rear ends shunts prove to be the main collision type at junction 8, accounting for more than half of those recorded (7 out of 12) during the study period and were caused by driving too fast/close or drivers' misjudgement. The remaining collisions consist of three poor manoeuvres, one distraction and one instance of speeding.

2.9 Junction 9 Nook Lane/Wigan Rd

No collisions were recorded during the study period at Junction 9 Nook Lane/Wigan Rd.

2.10 Junction 10 M65 Roundabout

An analysis of the collision data at Junction 10 M65 Roundabout is summarised in Table 36. Only one slight collision occurred, and the reported cause is an inexperienced driver not looking properly while joining the roundabout and colliding with another vehicle and a bicycle.

Table 36: Severity & Year of Collision on Junction 10 M65 Roundabout

Severity	2016	2017	2018	2019	2020	2021	Total
Slight	*0*	*0*	*0*	*1*	*0*	*0*	*1*
Serious	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Fatal	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Total	**0**	**0**	**0**	**1**	**0**	**0**	**1**

Source: Lancashire Central PIA Stats

2.11 Junction 12 Old School Ln/A582

An analysis of collision data during the study period was undertaken at Junction 12 Old School Ln/A582. The severity and year of collisions are summarised in Table 37. A total of two collisions occurred over the six years. Both collisions were of slight in severity.

Table 37: Severity & Year of Collision on Junction 12 Old School Ln/A582

Severity	2016	2017	2018	2019	2020	2021	Total
Slight	*0*	*0*	*1*	*0*	*1*	*0*	*2*
Serious	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Fatal	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Total	**0**	**0**	**1**	**0**	**1**	**0**	**2**

Source: Lancashire Central PIA Stats

One of the collisions was a rear end shunt caused by the driver failing to pay due car and attention, while the other was the result of the driver failing to look properly when turning into the junction and caused a bicycle rider to fall from their bike during the collision.

2.12 Junction 13 A69/ Lancaster Lane/B5256

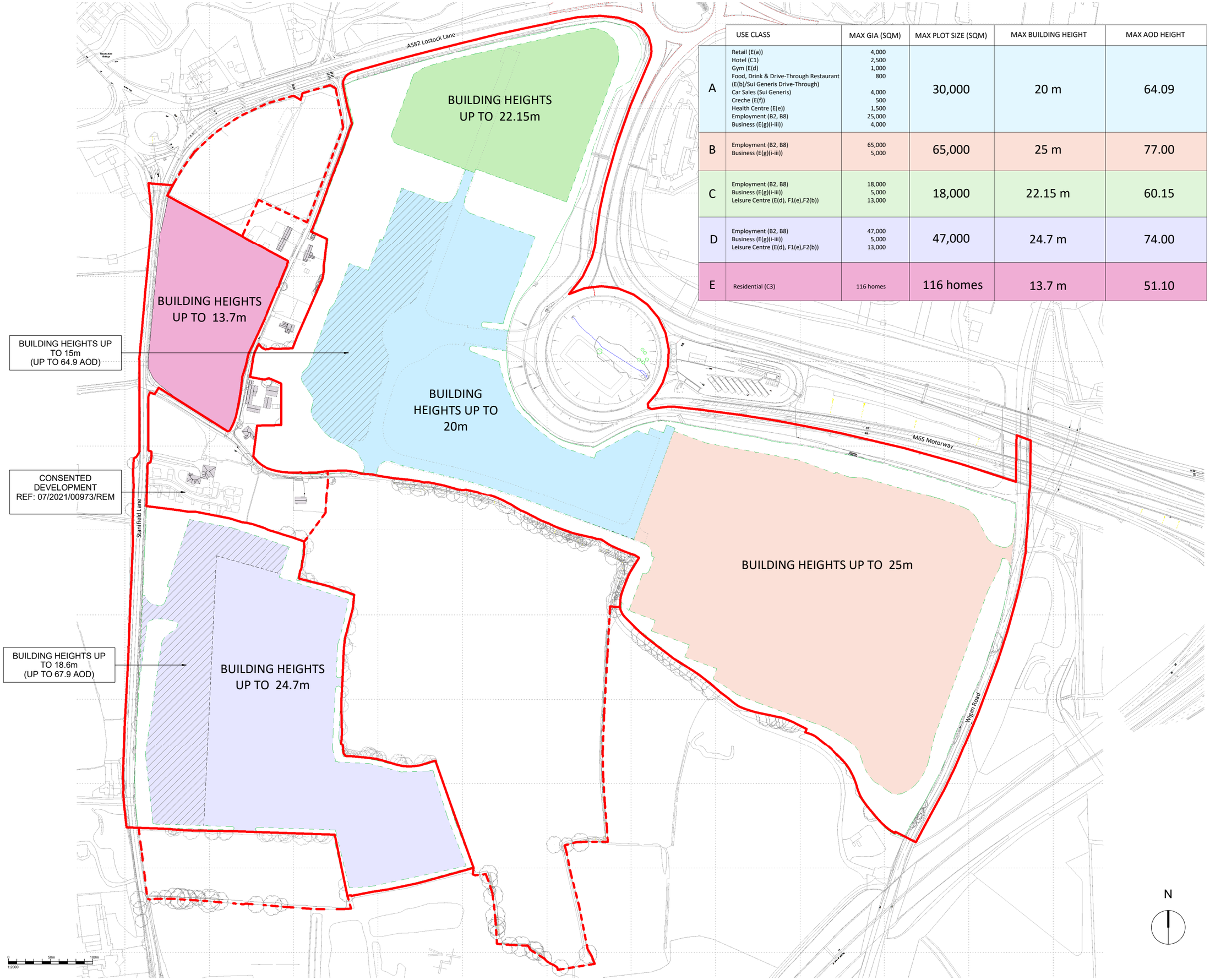
No collisions were recorded during the study period from 2016 to 2021 at Junction 13 A69/ Lancaster Lane/B5256.

2.13 Summary

Overall, while any road collision is regrettable, it is not considered there are any significant clusters or patterns of accidents at junctions local to the site above and beyond those that might reasonably be expected given the nature and scale of the local highway network.

Appendix C

PARAMETERS PLAN



	USE CLASS	MAX GIA (SQM)	MAX PLOT SIZE (SQM)	MAX BUILDING HEIGHT	MAX AOD HEIGHT
A	Retail (E(a)) Hotel (C1) Gym (E(d) Food, Drink & Drive-Through Restaurant (E(b)/Sui Generis Drive-Through) Car Sales (Sui Generis) Creche (E(f)) Health Centre (E(e)) Employment (B2, B8) Business (E(g)(i-iii))	4,000 2,500 1,000 800 4,000 500 1,500 25,000 4,000	30,000	20 m	64.09
B	Employment (B2, B8) Business (E(g)(i-iii))	65,000 5,000	65,000	25 m	77.00
C	Employment (B2, B8) Business (E(g)(i-iii)) Leisure Centre (E(d), F1(e),F2(b))	18,000 5,000 13,000	18,000	22.15 m	60.15
D	Employment (B2, B8) Business (E(g)(i-iii)) Leisure Centre (E(d), F1(e),F2(b))	47,000 5,000 13,000	47,000	24.7 m	74.00
E	Residential (C3)	116 homes	116 homes	13.7 m	51.10

General Notes

Do not scale from this drawing. Only work to written dimensions.

All site dimensions shall be verified by the Contractor on site prior to commencing any works.

Site Boundary Key:

- Application Site Boundary
- Future Development Plot Boundary

Zoning Key:

- Zone A
- Zone B
- Zone C
- Zone D
- Zone E
- Strategic Landscaping

Rev.	Description	Date	ISS	APP
P8	Access road dotted in full	15.07.22	SS	RT
P7	Updated to reflect LCC pre app feedback	01.07.22	SS	RT
P6	Updated Parameter Plans	24.06.22	RT	SS
P5	Drawing contents combined with PP 2 & 3	15.06.22	RT	AR
P4	Strategic Landscaping added	06.06.22	RT	AR
P3	Client description in title sheet amended	26.05.22	RT	AR
P2	Description in legend updated	25.05.22	RT	AR
P1	GIA figures updated	18.05.22	RT	AR
P0	First issue	11.05.22	RT	AR

MAPLE GROVE DEVELOPMENTS
PART OF THE ERIC WRIGHT GROUP

Lancashire County Council

Scale: As indicated @ A1
Status: S2 Information
Drawn By: AE
Checked By: RT
Date:

Client:
Lancashire County Council and Maple Grove Developments

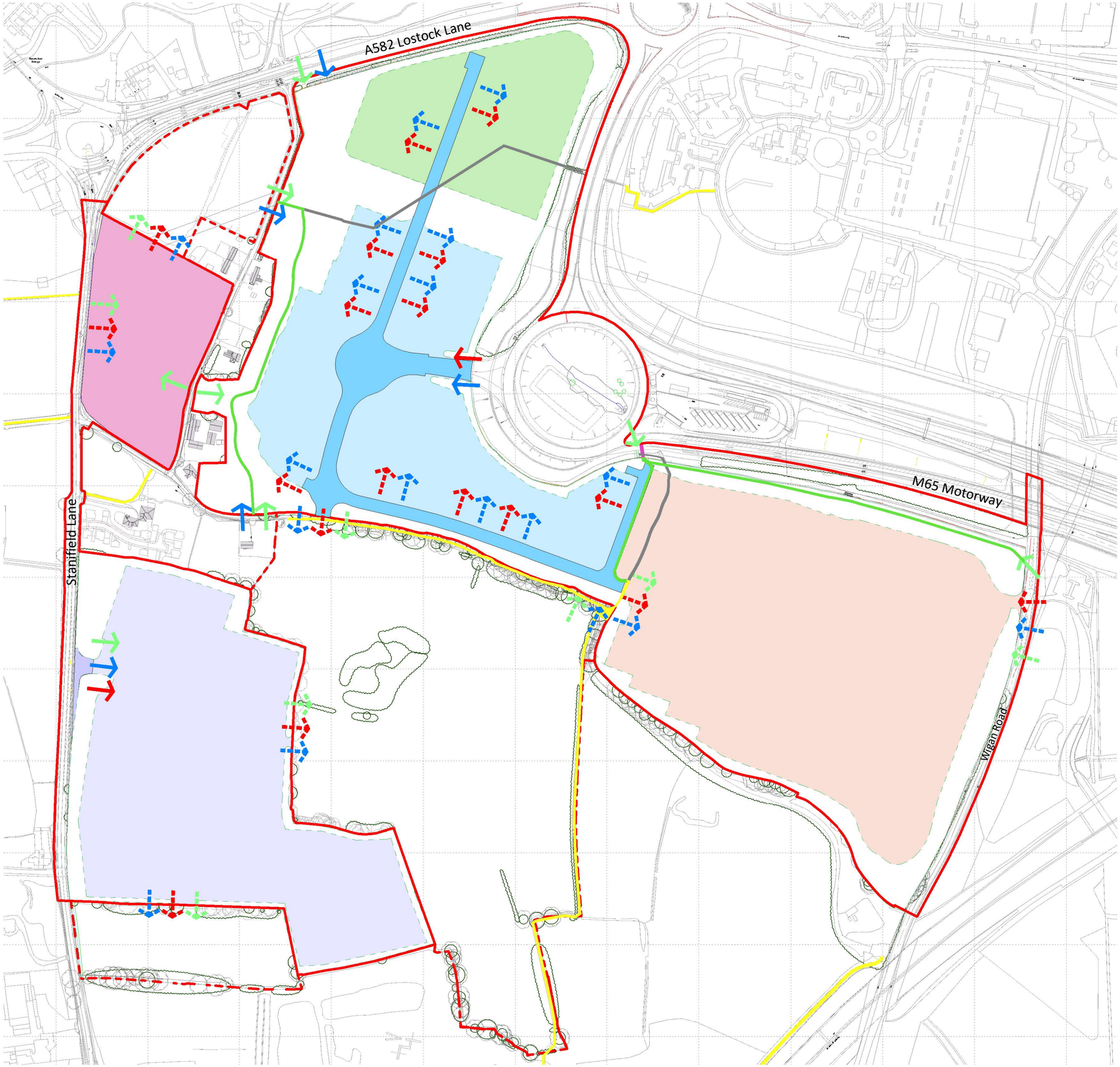
Project:
Lancashire Central, Cuerden

Sheet Name:
Parameters Plan 1 - Dev. Zones, Land Use, Quantum & Building Heights

Project No. Orig. Zone Level Type Role Dwg No. Rev
21017-FRA-XX-ZZ-DR-A-9111 P8

fletcher|rae
Architects | Master Planners | Designers
Level 12, Tower 12, 18-22 Bridge Street, Manchester, M3 3BZ

t +44 (0) 161 242 1140
f +44 (0) 161 242 1141
w www.fletcher-rae.com
e info@fletcher-rae.com



Site Boundary Key:

- Application Site Boundary
- Future Development Plot Boundary

General Notes

Do not scale from this drawing. Only work to written dimensions.

All site dimensions shall be verified by the Contractor on site prior to commencing any works.

Highways & Access Key:

- Zone A
- Zone B
- Zone C
- Zone D
- Zone E
- Existing PROW unaffected
- Existing PROW to be diverted/stopped up
- Proposed PROW
- Existing pedestrain access/footpath to be removed
- Controlled footpath / access for VOSA
- Proposed Pedestrian Access Points
- Proposed Vehicular Access Points
- Proposed Pedestrain Cycle Access Points
- Potential Pedestrian Access Points
- Potential Vehicular Access Points
- Potential Pedestrain Cycle Access Points

Rev.	Description	Date	ISS	APP
P10	Access arrows & access road turning head adjusted. PRoW added to zone B	14.07.22	SS	RT
P9	Updated Parameter Plans	24.06.22	RT	SS
P8	PRoW updated	22.06.22	RT	SS
P7	Drawing re numbred and up rev'd. Landscaping along northern & western boundary adjusted	15.06.22	RT	AR
P6	Drawing re numbered and up rev'd	15.06.22	RT	AR

MAPLE GROVE DEVELOPMENTS
PART OF THE ERIC WRIGHT GROUP

Lancashire County Council

Scale	As indicated @ A1
Status	S2 Information
Drawn By	SH
Checked By	RT
Date	March 2022

Client:

Lancashire County Council and Maple Grove Developments

Project:

Lancashire Central, Cuerden

Sheet Name:

Parameters Plan 2 - Highways and Access

Project No. Orig. Zone Level Type Role Dwg No. Rev

21017-FRA-XX-ZZ-DR-A-9112 **P10**

fletcher|rae
Architects | Master Planners | Designers
Hill Quays, 5 Jordan Street, Manchester, M15 4PY

t +44 (0) 161 242 1140
f +44 (0) 161 242 1141
w www.fletcher-rae.com
e info@fletcher-rae.com

General Notes

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All site dimensions shall be verified by the Contractor on site prior to commencing any works.

Site Boundary Key:

- Application Site Boundary
- Future Development Plot Boundary

This plan outlines the extent of the Strategic Landscaping proposed as part of this application. Full details of the Strategic Landscaping proposals are shown on the separate plans produced by Smeeden Foreman.

The additional landscaping which is to be provided within Development Zones A, B, C, D and E is to be determined by plot layout and is therefore a reserved matter. Details of this additional landscaping is to be provided by way of separate reserved matters application(s).

Rev.	Description	Date	ISS	APP
P9	Notes added in legend and to zones. Access road dotted in full.	15.07.22	SS	RT
P8	Updated to reflect LCC pre app feedback	01.07.22	SS	RT
P7	Updated Parameter Plans	24.06.22	RT	SS
P6	Drawing re numbred and up rev'd. Landscaping along northern & western boundary adjusted	15.06.22	RT	AR
P5	Drawing re numbered and up rev'd	15.06.22	RT	AR
P4	Drawing re numbered and upd rev'd	15.06.22	RT	AR
P3	Client description in title sheet amended	26.05.22	RT	AR
P2	Updated to reflect client feedback	11.05.22	RT	AR
P1	Updated following team feedback	08.04.22	SS	RT
P0				

MAPLE GROVE DEVELOPMENTS
PART OF THE ERIC WRIGHT GROUP

Lancashire County Council

Scale	As indicated @ A1
Status	S2 Information
Drawn By	SH
Checked By	RT
Date	March 2022

Client:
Lancashire County Council and Maple Grove Developments

Project:
Lancashire Central, Cuerden

Sheet Name:
Parameters Plan 3- Strategic Landscape

Project No. Orig. Zone Level Type Role Dwg No. Rev
21017-FRA-XX-ZZ-DR-A-9113 P9

fletcher|rae
Architects | Master Planners | Designers
Level 12, Tower 12, 18-22 Bridge Street, Manchester, M3 3BZ

t +44 (0) 161 242 1140
f +44 (0) 161 242 1141
w www.fletcher-rae.com
e info@fletcher-rae.com