

Caulmert Limited

Engineering, Environmental & Planning
Consultancy Services

Former School at Rhos Street Ruthin

Medra

Proposed Residential Development

Transport Statement

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Transport Statement

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1.0 INTRODUCTION

1.1 Background

1.1.1 In 2018 Denbighshire County Council (DCC) opened a new primary school at Glasdir in Ruthin to accommodate pupils from the former Pen Barras and Rhos Street Schools, thus enabling redevelopment of the former school sites.

1.1.2 Medra (Tai) Cyfyngedig is proposing to construct a development of 20 dwellings at the former Rhos Street school site and this report is a Transport Statement which reviews the scheme from a highways and access perspective.

1.1.3 The following elements are reviewed via the report:

- The site location / setting in relation to existing amenities;
- Existing accessibility by car and non-car-based travel modes;
- The proposed development access arrangements;
- The proposed parking arrangements.

1.2 Site Location and Surrounding Land Use

1.2.1 Ruthin is a market town in the county of Denbighshire, which the 2011 census indicates has a population of approximately 5,500. The site is located to the immediate east of Ruthin town centre as shown in Figure 1 below:

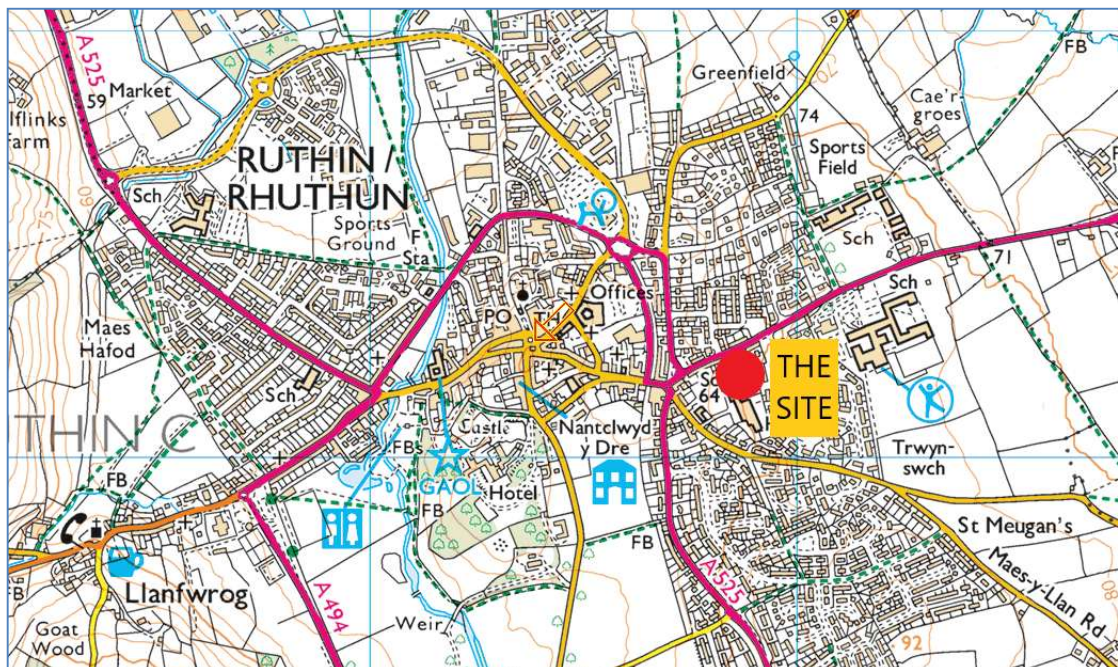


Figure 1: Site Location Plan

- 1.2.2 The former Rhos Street school site is bounded to the north by the A494 (Rhos Street) with existing housing to the east and west and on the opposite side of Rhos Street. Ruthin Community Hospital and 'The Clinic Surgery' are located on land to the immediate rear of the site and the land formerly associated with parts of the school playing field is located to the southwest adjacent to the above. There is a footpath link to the hospital and clinic from Rhos Street along the western boundary of the site; however, vehicle access to them is gained via a recently upgraded road off Llanrhydd Road to the southwest.
- 1.2.3 Ysgol Brynhyfryd, a comprehensive school maintained by Denbighshire Education Authority, and Ruthin public School catering for day and boarding pupils (both for pupils between 11 and 18 years) are located at the A494 Mold Road just beyond Rhos Street and approximately 350m east of the site. The development site is close to Ruthin town centre with shops, cafes and other amenities being located nearby.
- 1.2.4 Rhos Street around the site contains traditional style terraced houses that are located to the rear of roadside footways, which are of varying width. Some of the houses on the site side of Rhos Street have access steps outside and thus within the footway area. Views of Rhos Street looking from the west and east of the site are provided in Photographs 1 and 2 below (site location highlighted).



Photograph 1 – Rhos Street West of the Site



Photograph 2 – Rhos Street East of the Site

- 1.2.5 The site boundary along the A494 Rhos Street is formed by a stone wall along the rear of the footway (Photo 3). In February 2021 an indicative development scheme for the site was submitted to Denbighshire County Council planning department for comment. That scheme included a new access point at the approximate midpoint of the site which would have required removal of the wall. In their response the Council commented that the stone wall is a feature of the street scene and thus asked that consideration was given to keeping it intact. It was also highlighted that the site is directly opposite to 'Rose Cottage' a Grade II Listed Building and thus maintaining the current street-scene would potentially be desirable in that context also.

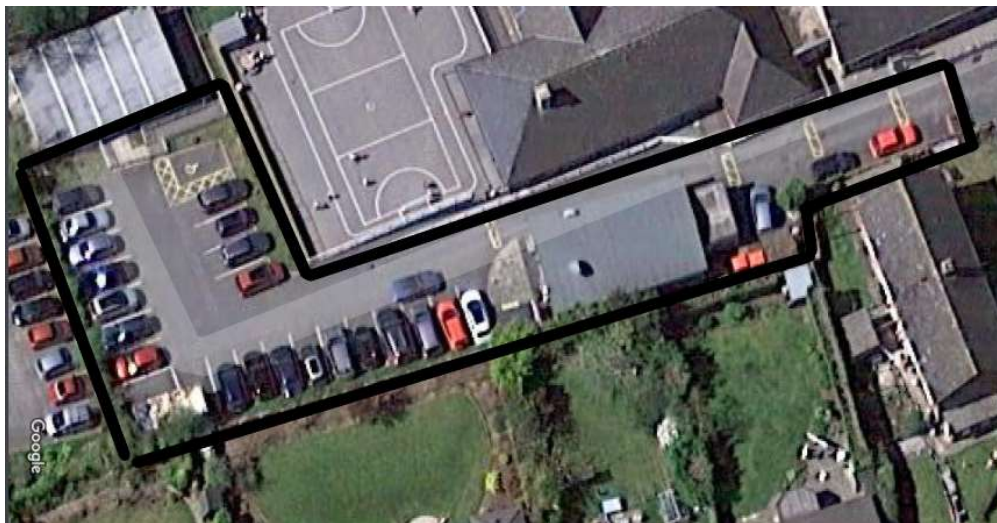


Photograph 3 – Stone Wall along the Rhos Street Boundary of the Site

2.0 FORMER SCHOOL USE TRIP GENERATION

2.1 Former Site Use Trip Generation

- 2.1.1 As indicated, the site was formerly a primary school. Figures outlined in a 2013 Estyn school inspection report indicate that Rhos Street school was then attended by 169 pupils aged 3-11, including 13 attending the nursery on a part time basis.
- 2.1.2 The Statistical Bulletin on Active Travel in Wales indicates that in 2018-2019 some 44% of children actively travelled to primary school. This correlates well with the Department for Transport National Travel Survey 2014 of school journeys in England which indicates an average of 46% of primary age children walk to school. Assuming a total of 156 full time pupils at the former Rhos Street School, 44% walking would equate to 69 pupils, leaving the remaining 87 to travel by other modes. The 2014 data for school journeys in England indicates that 46% of children travel by car and if the same proportion is applied to the former Rhos Street school it would suggest that around 69 pupils may have been transported by car.
- 2.1.3 To allow for shared trips between households or when parents had more than one child attending the school, a ratio of 1.5 children per car could be assumed, and this would thereby suggest that around 46 parent cars ($69 \div 1.5$) may have visited the former school at the start / end of a school day to drop off and collect children. The former arrangements for dealing with parent cars is not known; however, as there are double yellow lines along Rhos Street past the school and on-site space was limited it seems likely that many such parents may have parked in nearby side streets from where they would walk a short distance to the school.
- 2.1.4 The website for the relocated Rhos Street School indicates that it has a total of 21 teaching staff and a further 9 associated with day care and supervision roles. If the same previously applied at the old school site it suggests that around 30 full and part time staff may have worked at the Rhos Street site. The aerial view below taken when the school was in use shows 24 cars parked on site (ignoring 1 double parked) which would equate to a car user ratio of 80% in relation to 30 staff.



Photograph 4 - Cars Parked at the Former School (source Google Maps)

- 2.1.5 Census data from 2011 indicates that 75.7 per cent of workers in North Wales then travelled to work by car, van, or motorcycle which broadly correlates with the above assessment and thus the simplistic review of staff car use suggested by the aerial photograph. In combination therefore the above assessment suggests that the former school may have generated car movements as outlined in Table 1.

Table 1 – Estimate of car journeys for former school

	AM	PM	Total
Staff Car Arrivals	24	0	24
Staff Car Departures	0	24	24
Parent Car Arrivals / Departures	46 each way = 92	46 each way = 92	184
Trips Generated	70 arrivals 46 departures	46 arrivals 70 departures	232

- 2.1.6 Section 5 of this report will show that the proposed residential development is predicted to generate a total of approximately 92 daily car movements and thus that it is expected that the revised site use will generate less traffic when compared to the former school.

3.0 PLANNING POLICY

3.1 Policies Applicable to Transport and Access to the Site

3.1.1 The following Denbighshire County Council policies are relevant to the development.

Policy RD1 – Sustainable development and good standard design

Policy BSC2 – Brownfield Development Priority

Policy ASA3 – Parking Standards

In terms of national planning policy Planning Policy Wales, Edition 11 (PPW 11) the Technical Advice Note (TAN) 18 Transport is also relevant.

3.2 Summary

3.2.1 This report will review how the development proposals align with the above policies.

4.0 EXISTING CONDITIONS

4.1 Existing Infrastructure

- 4.1.1 Figure 2 is a Key Plan highlighting elements of the existing physical infrastructure surrounding the site, which are discussed in this section of the report.

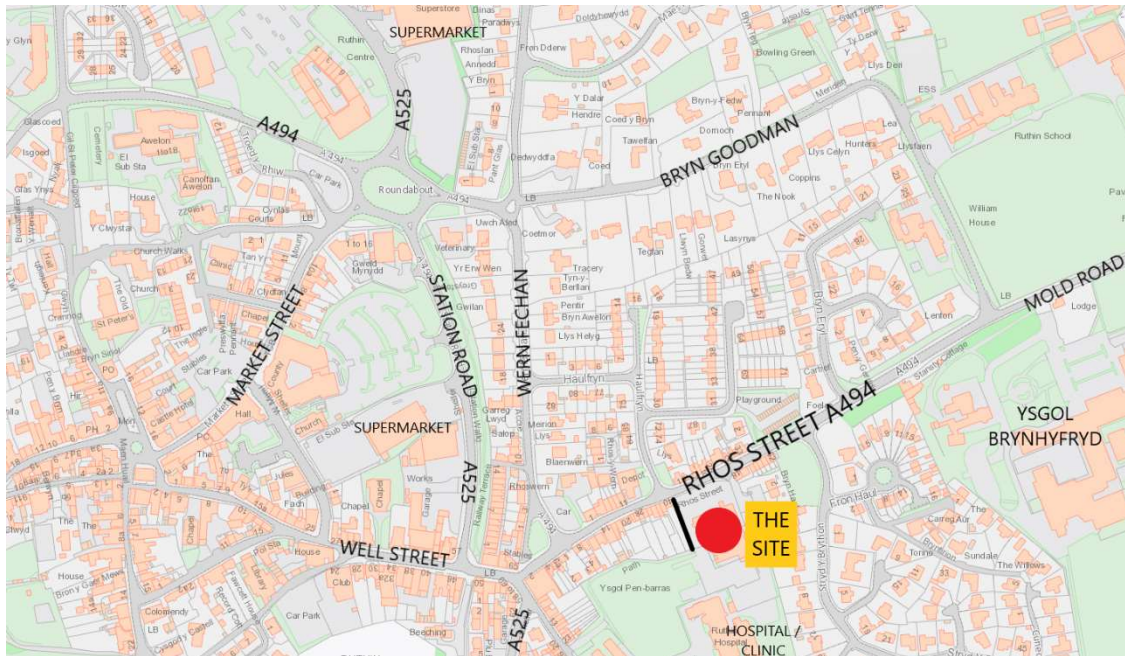


Figure 2: Key Plan

4.2 Vehicular Access to the Site

- 4.2.1 Rhos Street is a single carriageway trunk road and thus falls under the administration of the North and Mid-Wales Trunk Road Agent (NMWTRA) on behalf of the Welsh Government. Consequently, the access arrangements for the development have been established in consultation with NMWTRA.
- 4.2.2 Rhos Street and the roads around the town are subject to 30 miles per hour speed limits; however, a part-time 20 miles per hour speed limit comes into force along part of the A494 a short distance east of the site at the start and end of the school day at Ysgol Brynhyfryd.
- 4.2.3 The former Rhos Street school was accessed off the A494 via a short lane to the east side of the site, which it is understood is still in the ownership of DCC and which also serves a handful of dwellings on that side. The lane is approximately 4.3m wide and at its junction with the A494 is bounded on the immediate east side by a house and thus lacks any radius kerbing on that side. The west side of the junction is kerbed (generally using dropped kerbs) which measurement of the site survey indicates have a radius of approximately 10m. The current site access is therefore a hybrid of a simple tee-junction and direct access footway crossing layout (see Photographs 5 and 6).



Photograph 5 – Looking West across the existing site access



Photograph 6 – Looking to Rhos Street from within the existing site access

- 4.2.4 There is a footway to each side of the A494; however, the access layout means that from within the site access it is not possible to see pedestrians approaching along the site side footway and particularly on the east side due to the property walls, as shown above.
- 4.2.5 The A494 has a carriageway width of 6.2m at the point of the site access; however, the site survey indicates that it tapers to the west and at the end of the site in that direction Rhos Street has a carriageway width of approximately 5.5m.

- 4.2.6 The road is illuminated at night by means of lighting columns and double yellow lines are in place to confirm a full-time prohibition along each side of the A494 Rhos Street past the site.
- 4.2.7 The Design Manual for Roads and Bridges (DMRB) outlines visibility requirements for junctions at trunk roads and are described as 'x' and 'y' distances; where 'x' is the distance into the side road from which visibility is required and 'y' the distance along the main road to where the full road channel of the main road should be visible from 'x'. For direct accesses an 'x' of 2m is required and for simple priority junctions 2.4m. A 'y' of 90m applies to trunk roads subject to a 30mph speed limit. Due to the proximity of the school site boundary wall and the property to the immediate right of the existing site access, less than 90m visibility is afforded to the site side channel of the A494 Rhos Street from 2.4m into the existing site access.



Photograph 7 – Looking left Rhos Street from 2.4m within the existing site access



Photograph 8 – Looking left Rhos Street from 2.4m within the existing site access

- 4.2.8 It will be shown that the proposed access proposals will deliver an upgraded junction layout with geometry and visibility provisions in accord with the requirements of the DMRB and better facilities for pedestrians.

4.3 Pedestrian Access to the Site

- 4.3.1 There are contiguous footways to each side of the roads around the site and as noted previously they are illuminated at night by lighting columns. Due to the historic nature of the area, the footway widths vary with the one along the site frontage being typically around 1.25m to 1.3m wide. To the east of the site access the footway width is initially 2m and from there east it typically measures not less than 1.6m. The footway on the north side of the A494 varies in width between 1.5 and 2.1m. Dropped kerbs are provided in the footways each side of the road towards the western end of the site frontage to facilitate pedestrian crossing movements as shown in Photograph 9.



Photograph 9 – Dropped kerb crossing at the site frontage

- 4.3.2 There is a signal-controlled pedestrian crossing near to Ysgol Brynhyfryd to the east of the site and another at the A525 at the western end of Rhos Street. The existing side road crossing points generally include dropped kerbs for pedestrians but not all include tactile paving slabs.
- 4.3.3 As noted previously, some the houses to each side of the site have access steps within the footways and obviously there is a reduction in the usable width of the footways adjacent to them. Approximately 35m west of the site boundary there are steps outside of the terraced houses which extend to the full width of the footway and therefore pedestrians are required to use the steps and short length of raised platform outside of the properties.
- 4.3.4 A site visit was timed to coincide with the end of a school day so that potentially peak pedestrian behaviour could be observed. It was noted that the number of students walking along Rhos Street was not high and that on leaving Ysgol Brynhyfryd some pupils use the signal-controlled pedestrian crossing close to the school to then walk via Bryn Goodman when heading westward and a small number continued via the north side footway of the A494.
- 4.3.5 For those observed walking past the site, the presence of the steps outside of some of the dwellings did not pose any obvious constraint and no-one was observed walking in the road to avoid the steps, including where there is a requirement to walk via the steps to the west of the site. This raised feature can obviously pose a potential constraint on anyone with a significant mobility impairment; however, the historic nature of Rhos Street means that there is no surplus road space available to widen the footway to provide a pedestrian route around the steps. The dropped crossing at the west end of the site frontage provides access to footway on the north side of Rhos Street which is wider and has no vertical features and so that route can thus be used to avoid the steps, if required. The north footway crosses the junction of Haulfryn, the street opposite to the site, where flush dropped kerbs are provided at an in-line pedestrian crossing.

- 4.3.6 The footpath along the west boundary of the site likely used to serve the school as there is a length of guard-railings provided in the Rhos Street footway adjacent to the path which extend east to the dropped crossing mentioned above. As noted, the path now provides a pedestrian link to the Community Hospital and Clinic and a fence has been installed to separate it from the development site with wall mounted lighting units installed along its length. It is possible to continue through the hospital site to Llanrhydd Road to the southwest and thus this path provides another potential means to bypass the steps in the footway to the west of the site for anyone heading for Llanrhydd Road or areas to the southwest. The site layout proposal thereby includes a possible link for that purpose.



Photograph 10 – Path to west side of the site



Photograph 11 – Path to west side of the site showing fence installed

- 4.3.7 Figure 3 is an extract from Denbighshire County Council Active Travel Map Ref Ruthin ERM 2017 and confirms that, notwithstanding the factors outlined above, the footways along Rhos Street are confirmed as 'Active Travel Route INM-Den-Ruth-P100'. During consultation, the local and trunk road authorities indicated that they do not currently have an active travel related improvement scheme proposed for Rhos Street.

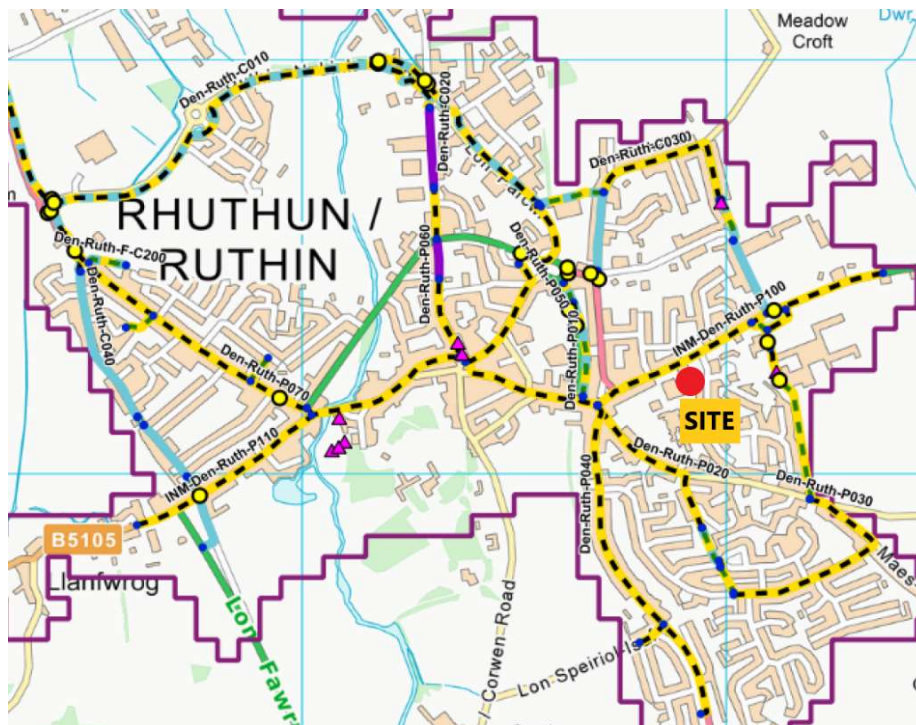


Figure 3: Extract from DCC Active Travel Map

4.4 Cycle Access Provisions

- 4.4.1 There are no separate cycle specific routes at Rhos Street or around the immediate area of the site and so access to the development site by bicycle would be gained via existing roads. There are however on and off-road cycle routes to the north of the town with route Den-Ruth-C010 shown at Figure 3 being a designated shared foot/cycleway running the full length of the Glasdir Link Road. This facility can be used to access the new junior school located at the northwest end of the route.

4.5 Public Transport Provisions

- 4.5.1 The bus stops located around the site are shown on the map below, which is taken from the Traveline Cymru website.

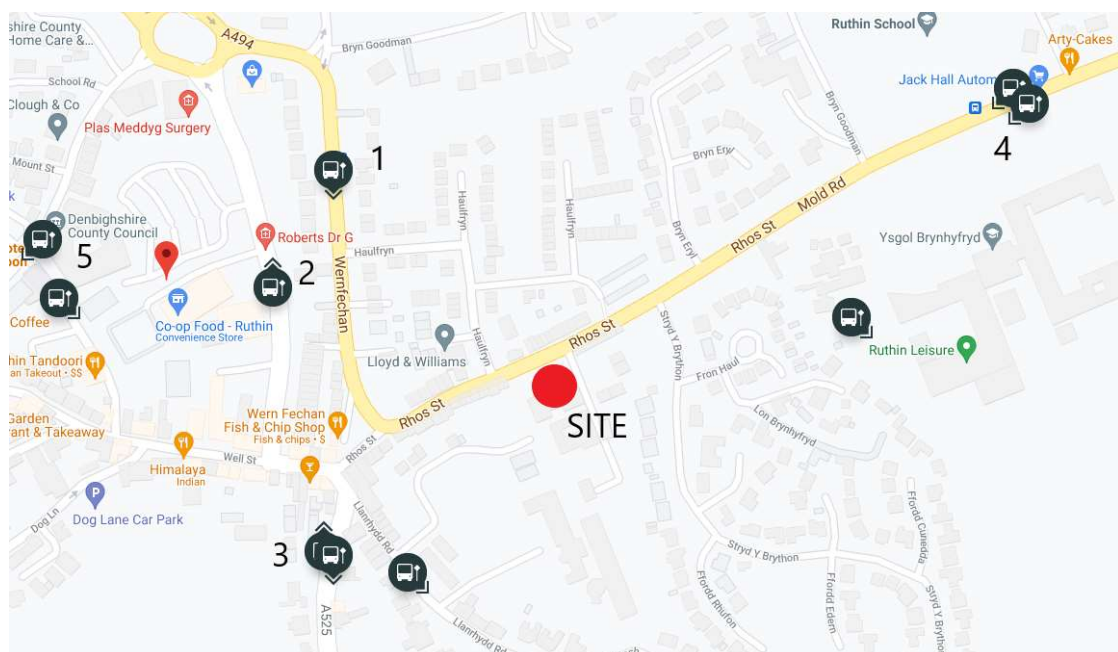


Figure 4: Location of Bus Stops

- 4.5.2 The bus stop at location 1 (Wernfechan) is used for outbound services to Mold (services 1, 2) and Chester via Mold (X1) with return services via stop 2 (Station Road). The stops at 3 (The Feathers) serve destinations to the south of Ruthin which include Corwen (55), local villages (76T / 77) , and Wrexham (X51) as well northbound services to Denbigh (X51).
- 4.5.3 Assessment procedures such as BREEAM consider that amenities within a 500m walking distance are accessible on foot and thus support sustainability. Measurement using Google Maps walking feature indicates that bus stops at 1 / 2 are 300m walking distance from the site, stops 4 (Brynhyfryd School) 300m and stops at 5 (Town Hall) 500m.
- 4.5.4 The stops at location 4 are used by the same routes as stops 1 and 2 above whilst the main bus hub for the town is located near to the town hall, from where the timetables indicate that a higher frequency of services to/from Denbigh and Wrexham is available when compared to the stops at the Feathers (stops at location 3).

4.5.5 The frequency of the services to main destinations is currently as follows:

- Mold / Chester – every 45 to 75m minutes each way from 07:30 to 18:12.
- Denbigh / Wrexham (X51) – hourly each way from 07:14 to 22:13

4.5.6 Summary timetables for the Wrexham/Denbigh (X51) and Mold/Chester (1,2, X1) services as downloaded from the DCC website is provided at Appendix A.

4.6 Review of Accident History

4.6.1 It accepted practice to review accident records for the highway serving a site to check if there is a potential safety problem. Typically, accidents may warrant further investigation to determine if there were common factors when a cluster site is identified. The UK Government guidance defines a cluster site as one where at least 4 personal injury incidents have occurred within 100m of each other and within a 3-year period.

4.6.2 A search of the CrashMap website over an area 100m to each side of the development site to check was made for the latest 5-year period available (2016-2020 inclusive). Figure 5 shows the location of incidents recorded in that time.

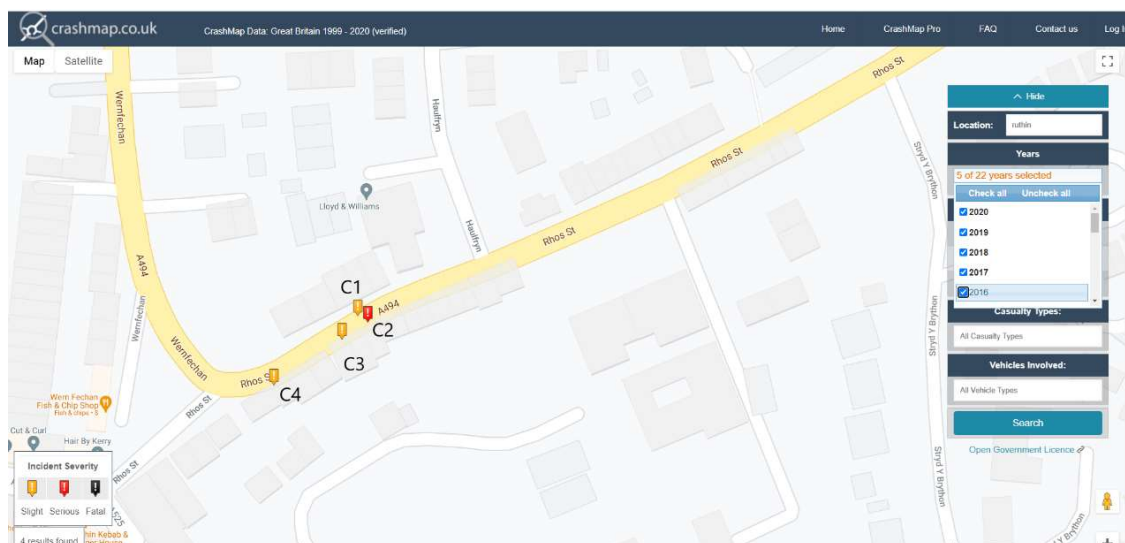


Figure 5 – Recorded Personal Injury Accidents 2016-2020 inclusive

4.6.3 Four incidents are reported to the west of the site. The incident labelled as C2 was serious severity, occurred in November 2019 and was as the consequence of a collision between a car and an adult pedestrian. The three other incidents are recorded as 'slight' severity. Incident C1 is from April 2017 and C3 from July 2019, with both reported as involving a car and adult pedestrian. C4 happened in September 2016 and involved a single car with 5 people (presumably the occupants) indicated to have sustained a minor injury in the incident.

4.6.4 Under the definition outlined above the recorded incidents do not comprise a cluster site. No incidents are reported as having occurred along the A494 at the site frontage or existing vehicle access point.

- 4.6.5 The development access proposals will upgrade and improve the current arrangements and will provide much improved inter-visibility between users of the site access, existing motorists, and pedestrians. The fact that no incidents have been reported at the current access supports the view that the improved access arrangements can be expected to operate safely.
- 4.6.6 As highlighted, the roads around the site are not high-speed routes and are currently subject to a 30mph speed limit, aside from a section a short distance to the east of the site where a 20mph limit is brought into force at the start and end of a school day.

5.0 PROPOSED DEVELOPMENT

5.1 Main Access Arrangements

5.1.1 The development site access arrangements have been developed following consultation with the North and Mid-Wales Trunk Road Agent (NMWTRA) and comprise an upgrading of the existing / former school access arrangements. This approach was preferred by NMWTRA to avoid the addition of a new junction to the trunk road, and it also complies with the sentiments of the local authority by preserving the existing streetscape by keeping as much of the stone wall as possible along the site frontage. The scheme supports DCC Policy BSC2 – Brownfield Development Priority.

5.1.2 An illustration of the proposed development layout is provided below (see architects plans for sections and elevations).



Figure 6 – Proposed Site Layout

5.1.3 To improve visibility to the right for drivers exiting the site and to provide a 6m radius on the east side, the junction connecting the access to the A494 Rhos Street is moved westward by approximately 4m when compared to the existing position.

- 5.1.4 This change will also provide improved pedestrian crossing arrangements by creating an area on the east side of the junction mouth from where pedestrians will be visible to motorists leaving the site and from where those wanting to cross will be able to see along the site access road. The provision of a footway on the west side of the junction will result in a similar improvement to that side also.
- 5.1.5 Drawing Reference 4863-CAU-XX-XX-DR-C-1500 appended to this report confirms that the development access proposals include the following features:
- A 5.5m wide access road at connection to the A494 junction. Further into the development the road width tapers to 5m, which complies with the width indicated as a requirement by DCC Highways in response to the pre-planning enquiry.
 - 6m kerbed radii to each side of the junction mouth.
 - 90m visibility along the nearside of the A494 from a point 2.4m back into the side road. Moving the junction to the west of its current positions provides the required visibility splay to the east (right at exit) whilst on the west side of the junction the existing stone wall is relocated to the rear of the visibility splay.
 - Moving the junction from its current position also provides more space to provide a 2m footway to each side of the junction with a flush kerb in-line crossing with tactile paving slabs to assist blind people whilst also providing a means to access the parking area for the existing dwellings in a way that is set-back and separated from the junction.
 - The widened footway area on the east side of the junction means that pedestrians approaching from the east will be visible to and will see drivers heading towards the junction from the site access with a similar arrangement provided on the west side also. This is an improvement over the current arrangement whereby the footway meets the access road at an un-sighted position due to the dwelling on the right of the access and lack of footway leading into the site on the west side of the access (Photographs 5,6 and 8 refer).
 - Relocating the stone wall to the west of the access will enable the footway to be widened to 2m at the junction crossing, gradually tapering to its existing width at the relocated wall tie-in to the existing arrangements.
 - The access layout drawing will provide a defined separation of 20m between the centre of the A494 junction and the access to the 3 existing car spaces that are provided for the existing dwellings that are also served by the current access arrangements.
- 5.1.6 The detailed design of the junction and internal estate road will comply with the trunk road and DCC's standards respectively with the objective that they would be adopted by the highway authorities.

- 5.1.7 Figure 6 confirms that a full-size turning head is provided at the end of the internal estate road and that a potential link to the footpath to the west side of the site could be provided from the end of the proposed estate road. The layout supports DCC Policy RD1 – Sustainable development and good standard design.

5.2 Trip Generation

- 5.2.1 When consulted, NMWTRA requested an indication of likely vehicle turning movements at the proposed site access, based on TRICS rates. TRICS is a database of traffic surveys carried out at existing UK developments from which trips rates can be derived. It is considered a reliable way to predict likely trip generation for proposed similar developments.

- 5.2.2 A search was made for small scale mixed 'edge of town' privately owned housing developments, excluding sites within Greater London. Seven sites were found ranging in size from 18 to 69 dwellings with 8 weekday surveys between them having been conducted between 2013 and 2018. Appendix 2 confirms that the data from these sites indicates a mean trip multi-modal rate (i.e., all travel modes) of 2.3 trips per dwelling, between 7am and 7pm (the range of the surveys). The rates indicated for car trips are shown in Table 2 below.

Table 2 – TRICS trip rates for cars at edge of town housing

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED									
MULTI-MODAL CARS									
Calculation factor: 1 DWELLS									
BOLD print indicates peak (busiest) period									
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	8	40	0.075	8	40	0.217	8	40	0.292
08:00 - 09:00	8	40	0.126	8	40	0.336	8	40	0.462
09:00 - 10:00	8	40	0.138	8	40	0.116	8	40	0.254
10:00 - 11:00	8	40	0.110	8	40	0.135	8	40	0.245
11:00 - 12:00	8	40	0.123	8	40	0.123	8	40	0.246
12:00 - 13:00	8	40	0.142	8	40	0.170	8	40	0.312
13:00 - 14:00	8	40	0.154	8	40	0.154	8	40	0.308
14:00 - 15:00	8	40	0.167	8	40	0.186	8	40	0.353
15:00 - 16:00	8	40	0.198	8	40	0.129	8	40	0.327
16:00 - 17:00	8	40	0.255	8	40	0.145	8	40	0.400
17:00 - 18:00	8	40	0.305	8	40	0.157	8	40	0.462
18:00 - 19:00	8	40	0.204	8	40	0.173	8	40	0.377
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.997			2.041			4.038

- 5.2.3 As two apartments are also proposed as part of the development, a check was made on edge of town privately owned flats which indicated a combined (two-way) daily trip rate of 2.26 per unit. Application of the above rates to the 4 existing houses, 18 proposed houses and 2 apartments would indicate the following car movements

- 22 houses x 4 = 88 movements (44 in / out) per day
- 2 No flats x 2.26 = 4 movements (2 in / out) per day

Total = 92 movements (46 in / out per day)

- 5.2.4 In addition to the above there would be the occasional delivery / service vehicle and perhaps taxi movements; however, these would be included in the multi-modal trip rate of 2.3 (each way) per dwelling and thus within the total of 55 in/out trips per day thus predicted to use the proposed access.
- 5.2.5 DMRB CD123 indicates that a ghost-island right turn lane may be required at a junction when the side road turning movements exceed 300 per day. The 110 movements per day indicated by the above assessment thus confirms that the development trip generation would fall well below that threshold. This confirms that a simple tee-junction as proposed is appropriate to the scale of the development.

5.3 Parking

- 5.3.1 Denbighshire Council's 2014 Supplementary Planning Guidance Note (SPG) '**Parking Requirements in New Developments**' outlines parking ratios relative to the type of development. It confirms *"The availability of car parking is a key element in managing car use and a major influence on the choice of transport. Car parking can take up large amounts of space in developments thereby reducing densities."* Continuing...*"Welsh Government (WG) is committed to implementing the principles of sustainable development in planning policies and, hence, into new developments with high quality design. Local planning authorities are advised to ensure new developments include facilities to promote sustainable transport."*
- 5.3.2 The SPG indicates that *"It should be noted that the following car parking standards are maximum standards for each land use category. Where the maximum is not provided the developer will be required to show the scale, i.e., frequency and length, of the journeys to the site and, if parking demands exceed proposed parking provision, how the resulting shortfall will be catered for."*
- 5.3.3 For private dwelling (houses and flats) the SPG maximum car parking provision is 1 car space per bedroom, up to a maximum of 3 per dwelling with 1 visitor space per 5 units. The development mix comprises 2 No 2 bed flats, 4 No 2 bed houses, 12 No 3 bed houses and 2 No 4 bed. The proposed design includes 1 parking space for each of the flats and 2 parking spaces per dwelling for the rest of the development. It is anticipated that around 25% of the proposed dwellings will benefit from electric vehicle charging infrastructure.
- 5.3.4 A covered lockable cycle store able to accommodate 2 bicycles will be provided for each of the apartments in recognition that such dwellings have less space available. For the remainder of the development, it is proposed to offer the provision of a cycle store to purchasers at the point of sale of the houses with the store being installed prior to occupation.
- 5.3.5 DCC Policy ASA3 – Parking Standards Policy, confirms that development proposals, including changes of use, are expected to provide appropriate parking spaces but that *"Consideration will be given to the following circumstances (where they apply) in determining parking provision:"*

- The site is located within a high-densely populated area;
- Access to and availability of public transport is secured;
- Parking is available within reasonable distance of the site;
- Alternative forms of transport are available in the area.

- 5.3.6 The site is in a highly sustainable location (see below) which means residents will be able walk or cycle to local amenities thus reducing reliance on using a car for many journeys and Table 2 indicates that just 2 outgoing/return car journeys per day could be generated per household. On this basis it is considered that the scheme proposals comply with circumstances highlighted by DCC Policy ASA3 and providing 2 car parking spaces per dwelling will deliver an appropriate balance between catering for resident car parking whilst also supporting sustainability objectives.
- 5.3.7 The development does not include specific provisions for visitor parking; however, at 5m width the site access road would enable vehicles to pass a parked car and so some on-street parking could be accommodated.
- 5.3.8 In addition, there is a small public car park just 100m to the west where the ticket machine indicates parking between the hours of 8am and 5pm is on a pay-and-display basis; however, at the time of writing signs indicated a change in that parking was free after 3pm each day.
- 5.3.9 On-street parking bays at Rhos Street west allow free parking for one hour 7am to 7pm with no restriction outside of these times. Free 30 minute on-street parking is also permitted between 8am and 6pm at Well Street, a 3-minute walk from the site (no restriction outside of those times). There are also large public car parks at Dog Lane and Market Street which are both within easy walking distance of the site. A range of options is therefore available for use by visitors to the development, if required.

5.4 Sustainability

- 5.4.1 Planning Policy Wales seeks to promote walking as a mode of travel instead of using a private car. Guidance to the Active Travel (Wales) Act 2013 confirms *“Walking as a mode of travel predominates for journeys of less than 2 miles”* and that *“Walking rates are relatively high, particularly for journeys of less than 2 miles”* (Design Guidance to the Active Travel Wales Act, 4.1.4).
- 5.4.2 The Chartered Institution of Highways & Transportation (CIHT) draft report ‘Planning for Walking’ (2015) comments that *“Across Britain about 80 per cent of journeys shorter than 1 mile are made wholly on foot – something that has changed little in thirty years. In 2012 walkers accounted for 79 per cent of all journeys shorter than 1 mile”*.
- 5.4.3 Table 3 provides a list of the just some of the local amenities within 1 mile distance of the site and therefore less than the distance indicated in the Active Travel Wales Act (2013) as being convenient for undertaking on-foot and well within the 1-mile (1,609m) range indicated by the CIHT as being where most journeys are made on foot. An indication of their distance from in metres is provided along with the walking times indicted by Google Maps.

Table 3 – Example Amenities within walking distance of the site

Amenity	Location	Distance / walking time
Food shopping outlets	Coop, Station Road Town centre shops Tesco Lon Parcwr	400m / 4.5 minutes 500m / 5 minutes 650m / 8 minutes
Local shops (café, butchers etc)	Well Street	200 - 400m / 3 to 4 minutes
Access to cash	ATM and bank, HSBC St Peter's Square	600m / 7 minutes
Outdoor public space	Haulfryn Playing fields (opposite site off Rhos Street)	50m / 1 minute
Recreation / leisure facility for fitness or sports	Ysgol Brynhyfryd	300m / 4 minutes
Postal facility	Ruthin Post Office St Peter's Square	600m / 8 minutes
Community Hospital / Clinic	South of site	100m / 2 minutes
Pharmacy	Well Street Pharmacy	290m / 3 minutes
Takeaways	Fish & Chips, Chinese and Kebabs at Wern Fechan / Well Street	200m / 2 minutes
DIY / Décor / General Household Stores	Ruthin Décor / Ironmongers Well Street BM Bargains Station Road	250m / 3 minutes 350m / 4 minutes
Opticians	Smith's Well Street	250m / 3 minutes
Secondary School	Ysgol Brynhyfryd	300m / 4 minutes
Junior School	Lon Parcwr west	1,600m / 21 minutes
Public Car Park Time limited On-street parking	Rhos Street west Rhos Street west and Llanrhydd Road	100m / 2 minutes
Pubs and Restaurants	Various in and around Town Centre	200- 500m / 2-5 minutes

5.4.4 Table 3 confirms that the site is within an acceptable walking distance of the full range of amenities that people use from day to day and therefore that the development would be at a sustainable location. Many of the amenities are within the 500m distance applied in the Building Research Establishment's Environmental Assessment Method (BREEAM) sustainability assessment which acknowledges that developments located close to local amenities *"reduce the need for extended travel or multiple trips"*.

5.4.5 The site is edge of town centre, and this report has demonstrated the following:

- a) That bus services to surrounding towns and villages are provided from close to the site;
- b) A low level of car use is predicted by an assessment based on TRICS; and
- c) Use of a car is not necessary for accessing local amenities.
- d) There is on and off-site parking options for visitors.

5.4.6 The above factors confirm that car ownership will not be a pre-requisite of living at the site and, to the contrary, the site location will enable people to live in a sustainable way.

6.0 CONCLUSIONS

6.1 Summary

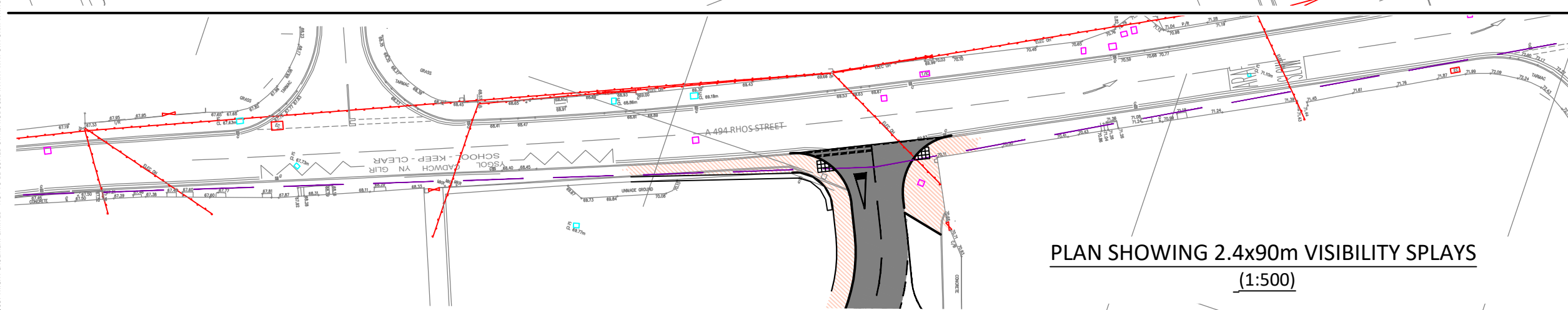
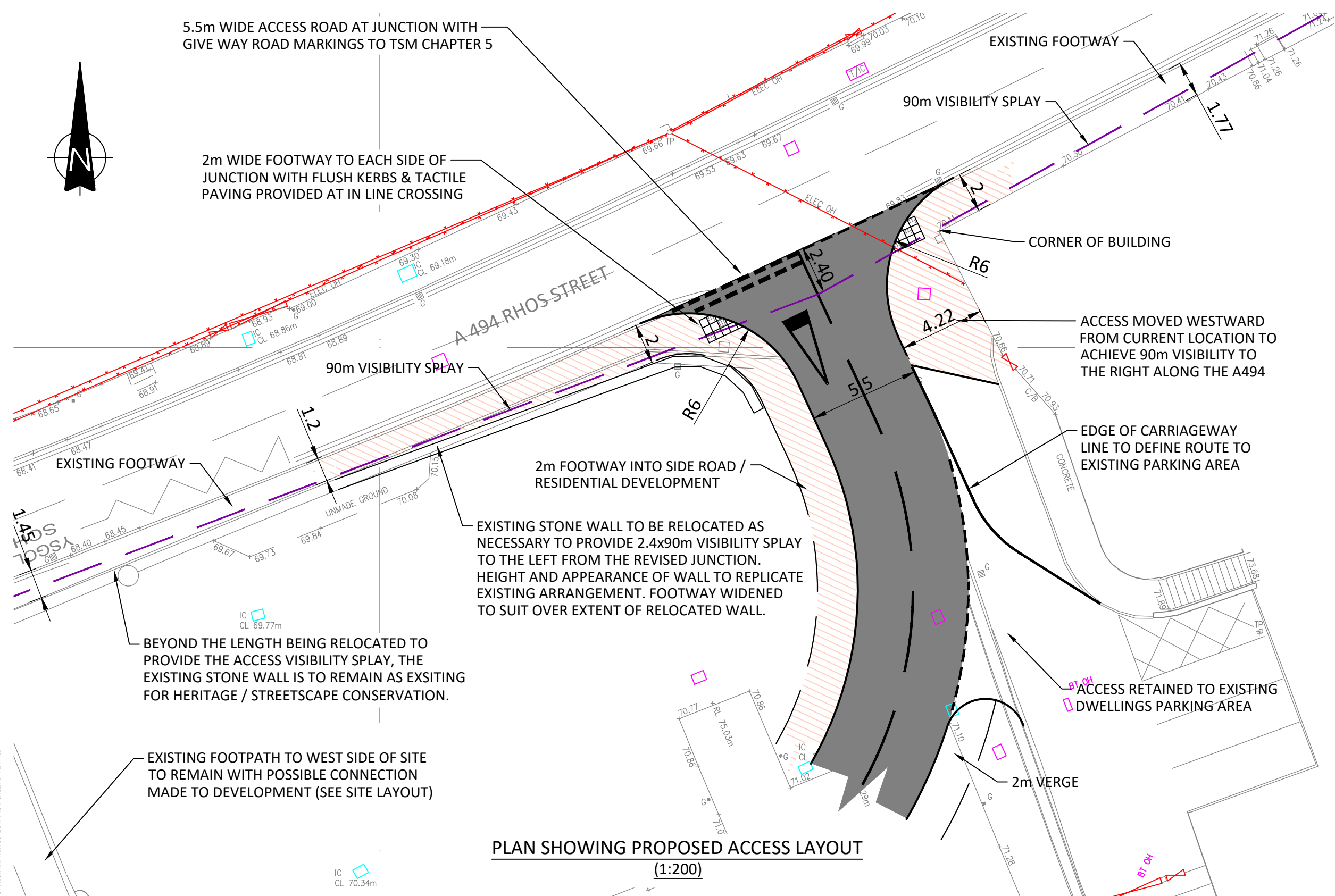
- 6.1.1 This report is a Transport Statement for a proposed development of 20 dwellings at the former Rhos Street school site in Ruthin. The site has been vacant since 2018 when Denbighshire County Council opened a new primary school at Glasdir in Ruthin to accommodate pupils from the former Pen Barras and Rhos Street Schools.
- 6.1.2 The report has outlined how the site location is close to the town centre and existing amenities which mean that its redevelopment for housing will reduce dependency on cars for residents as they will be able to undertake many typical day-to-day journeys on foot or by bike - including for shopping, healthcare, school journeys and recreation. The nearness of bus stops giving access to the available public transport routes also means that residents would have the option to use buses for longer journeys including for commuting to nearby towns.
- 6.1.3 The site access arrangements comply with the requirements of the trunk road authority whilst also retaining the character of the existing streetscape, as requested by the local authority. The revised tee junction proposed will deliver significant improvements over the current site access arrangements via improved visibility, width and geometry which will also benefit existing users of the access.
- 6.1.4 Pedestrian access to the site is provided via existing footways which due to the historic nature of the area are of varying width and it has been highlighted do not consistently meet contemporary design standards in all respects. Notwithstanding this, the scheme delivers improvements as best as possible by widening the footway along the site frontage in tandem with relocating the boundary wall to achieve the required visibility at the site access junction. The works will create a 2m wide footway at the point where pedestrians cross the site access with improved visibility to and for those crossing the site access, along with a 2m footway from that point into the site. A possible link to an existing footpath that runs along the west side of the site is also included for consideration by the council.
- 6.1.5 Table 3 confirms that a full range of amenities exist within easy walking distance of the development site making it a very sustainable location for people to live. Consequently, it is not expected that the development will generate a high volume of car trips, and this is supported by the trip assessment based on TRICS data. The proposed parking arrangements of 2 spaces per dwelling is anticipated to be sufficient to meet resident requirements whilst also supporting sustainability objectives aimed at discouraging unnecessary car use and thus ownership. Separate cycle storage will be provided at the apartment units and will be offered to all purchasers of the other dwellings.
- 6.1.6 This report has shown that the proposed development thereby complies with DCC planning policy from an accessibility and transport perspective.

7.0 REFERENCES

1. Summary statistics for North Wales region: 2020 (Welsh Government).
2. DCC Website – Planning Policy and Active Travel.
3. Statistical Bulletin on Active Travel in Wales.
4. Rhos Street School website
5. Traveline Cymru website.
6. Crashmap Website
7. TRICS database
8. Design Manual for Roads & Bridges
9. Guidance to the Active Travel (Wales) Act 2013
10. (CIHT) draft report 'Planning for Walking' (2015)
11. Google Maps

DRAWING

4863-CAU-XX-XX-DR-C-1500



NOTES

1. DO NOT SCALE FROM THIS DRAWING, WORK FROM FIGURED DIMENSIONS ONLY. ALL DIMENSIONS ARE IN METRES AND ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM UNLESS NOTED OTHERWISE.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, ENGINEERS AND SPECIALIST DRAWINGS AND SPECIFICATIONS.
3. DRAWING BACKGROUND IS BASED ON SITE TOPOGRAPHICAL SURVEY.

P03	PLANNING APPLICATION CONSULTATION	PS	JS	JS	20.12.21
P02	ISSUED FOR COMMENT	PS	JS	JS	13.12.21
P01	ISSUED TO TRA FOR COMMENT	PS	JS	JS	24.11.21
REV	MODIFICATIONS	BY	RE	AP	DATE
PURPOSE OF ISSUE				STATUS	
INFORMATION				S0	
CLIENT:					
<div><div>Adra</div></div>					
PROJECT:					
RESIDENTIAL DEVELOPMENT AT FORMER SCHOOL SITE RHOS STREET, RUTHIN					
TITLE:					
PROPOSALS TO UPGRADE EXISTING ACCESS TO SERVE THE DEVELOPMENT					
DESIGNED BY		DRAWN BY		REVIEWED BY	
PS		PS		JS	
DATE		SCALE @ A3		JOB REF:	
NOV' 21		SHOWN		4863	
				REVISION	
				P03	
DRAWING NUMBER					
4863-CAU-XX-XX-DR-C-1500					
<div><div>Caulmert</div><div>engineeringenvironmentalplanning</div></div>					

APPENDIX 1

Timetables for main bus routes

X51 Dinbych - Rhuthun - Wrecsam

X51 Denbigh - Ruthin - Wrexham

		M & H	SDO	SH														
Dinbych / Denbigh Lenten Pool	06:50	07:14	07:30	08:00	08:14	09:14	10:14	11:14	12:14	13:14	14:14	15:14	16:14	17:19	18:19	19:50	20:50	21:50
Eglwys Llanrhaeadr Church	07:00	07:24	07:40	08:10	08:24	09:24	10:24	11:24	12:24	13:24	14:24	15:24	16:24	17:29	18:29	20:00	21:00	22:00
Rhuthun / Ruthin	07:14	07:38	07:54	08:24	08:38	09:38	10:38	11:38	12:38	13:38	14:38	15:38	16:38	17:43	18:43	20:14	21:14	22:13
Rhuthun / Ruthin Wynnstay Rd	....	07:41	....	08:27	....	09:41	....	11:41	....	13:41	....	15:41	....	17:46	....	....	....	22:14
Coleg Llysfasi	....	07:49	....	....	....	09:49	....	11:49	....	13:49	....	15:49	....	17:54	....	....	....	22:21
Pentref Llandegla Village	....	08:02	....	....	....	10:02	....	12:02	....	14:02	....	16:02	....	18:07	....	....	....	....
Minera, Village Bakery	....	08:16	....	....	....	10:16	....	12:16	....	14:16	....	16:16	....	18:21	....	....	....	22:38
New Broughton	....	08:27	....	....	....	10:27	....	12:27	....	14:27	....	16:27	....	18:32	....	....	....	22:47
Gor Bysiau Wrexham Bus Stn	....	08:35	....	....	....	10:35	....	12:35	....	14:35	....	16:35	....	18:40	....	....	....	22:53

									SDO	SH			M & H					
Gor Bysiau Wrexham Bus Stn [S.6]	....	....	08:50	....	10:50	....	12:50	....	14:40	14:50	....	17:12	....	....	18:50	....	....	23:00
New Broughton	....	....	08:58	....	10:58	....	12:58	....	14:48	14:58	....	17:20	....	....	18:58	....	....	23:08
Minera, Village Bakery	....	....	09:10	....	11:10	....	13:10	....	15:00	15:10	....	17:32	....	....	19:10	....	....	23:15
Pentref Llandegla Village	....	....	09:24	....	11:24	....	13:24	....	15:14	15:24	....	17:46	....	....	19:24	....	....	....
Coleg Llysfasi	....	....	09:37	....	11:37	....	13:37	....	15:27	15:37	....	17:59	....	....	19:37	....	....	23:28
Rhuthun / Ruthin Market St	....	....	09:45	....	11:45	....	13:45	....	15:35	15:45	....	18:07	....	....	19:45	....	....	23:32
Rhuthun / Ruthin Market St	07:15	08:45	09:45	10:45	11:45	12:45	13:45	14:45	15:50	15:45	16:45	18:07	18:15	18:45	19:45	20:20	21:20	23:32
Eglwys Llanrhaeadr Church	07:29	08:59	09:59	10:59	11:59	12:59	13:59	14:59	16:04	15:59	16:59	18:21	18:29	18:59	19:59	20:34	21:34	23:48
Dinbych / Denbigh Lenten Pool	07:39	09:09	10:09	11:09	12:09	13:09	14:09	15:09	16:14	16:09	17:09	18:31	18:39	19:09	20:09	20:44	21:44	23:58

Gweithredir gan / Operated by Arriva (ac eithrio lle nodir M &H = M & H Coaches = except where indicated)

NS - Dim ar Dydd Sadwrn / Not Saturdays
SDO - Dyddiau ysgol yn unig (gweithredu drwy Ysgol Brynhyfryd, Rhuthun/Ruthin)
SH - Gwyliau ysgol



Teithiau ychwanegol ar ddyddiau ysgol yn unig (yn amodol ar dynnu'n ol ar hysbysiad fyr) (Townlynx)
Additional journeys on schooldays only (subject to withdrawal at short notice) (Townlynx)
0805 Dinbych/Denbigh - Ysgol Brynhyfryd / 1540 Ysgol Brynhyfryd - Dinbych/Denbigh

o / from 20/9/21

X51 Dinbych - Rhuthun - Wrecsam

X51 Denbigh - Ruthin - Wrexham

		M & H																
Dinbych / Denbigh Lenten Pool	06:50	07:14	07:30	08:14	09:14	10:14	11:14	12:14	13:14	14:14	15:14	16:14	17:14	18:14	19:50	20:50	21:50	
Eglwys Llanrhaeadr Church	07:00	07:24	07:40	08:24	09:24	10:24	11:24	12:24	13:24	14:24	15:24	16:24	17:24	18:24	20:00	21:00	22:00	
Rhuthun / Ruthin	07:14	07:38	07:54	08:38	09:38	10:38	11:38	12:38	13:38	14:38	15:38	16:38	17:38	18:38	20:14	21:14	22:13	
Rhuthun / Ruthin Wynnstay Rd	....	07:41	....	....	09:41	....	11:41	....	13:41	....	15:41	....	17:41	....	....	....	22:14	
Coleg Llysfasi	....	07:49	....	....	09:49	....	11:49	....	13:49	....	15:49	....	17:49	....	....	....	22:21	
Pentref Llandegla Village	....	08:02	....	....	10:02	....	12:02	....	14:02	....	16:02	....	18:02	....	....	....	....
Minera, Village Bakery	....	08:16	....	....	10:16	....	12:16	....	14:16	....	16:16	....	18:16	....	....	....	22:38	
New Broughton	....	08:27	....	....	10:27	....	12:27	....	14:27	....	16:27	....	18:27	....	....	....	22:47	
Gor Bysiau Wrexham Bus Stn	....	08:35	....	....	10:35	....	12:35	....	14:35	....	16:35	....	18:35	....	....	....	22:53	

Gor Bysiau Wrexham Bus Stn [S.6]	....	....	08:50	....	10:50	....	12:50	....	14:50	....	16:50	....	....	18:50	....	....	....	23:00
New Broughton	....	....	08:58	....	10:58	....	12:58	....	14:58	....	16:58	....	....	18:58	....	....	....	23:08
Minera, Village Bakery	....	....	09:10	....	11:10	....	13:10	....	15:10	....	17:10	....	....	19:10	....	....	....	23:15
Pentref Llandegla Village	....	....	09:24	....	11:24	....	13:24	....	15:24	....	17:24	....	....	19:24	....	....	....	....
Coleg Llysfasi	....	....	09:37	....	11:37	....	13:37	....	15:37	....	17:37	....	....	19:37	....	....	....	23:28
Rhuthun / Ruthin Market St	....	....	09:45	....	11:45	....	13:45	....	15:45	....	17:45	....	....	19:45	....	....	....	23:32
Rhuthun / Ruthin Market St	07:15	08:45	09:45	10:45	11:45	12:45	13:45	14:45	15:45	16:45	17:45	18:15	18:45	19:45	20:20	21:20	23:32	
Eglwys Llanrhaeadr Church	07:29	08:59	09:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:29	18:59	19:59	20:34	21:34	23:48	
Dinbych / Denbigh Lenten Pool	07:39	09:09	10:09	11:09	12:09	13:09	14:09	15:09	16:09	17:09	18:09	18:39	19:09	20:09	20:44	21:44	23:58	

Gweithredir gan / Operated by Arriva (ac eithrio lle nodir M &H = M & H Coaches = except where indicated)



o / from 20/9/21

Ruthin - Yr Wyddgrug / Mold - Brychdyn/Broughton - Caer/Chester														M&H Coaches				1, X1 & 2			
Ger / Via - Llanbedr DC & Loggerheads																					
Dydd Llun i Sadwrn (heblaw gwyliau cyhoeddus)																					
	1 DCC	1 SDO	2	X1	2	2	X1	X1	1	2 SDO	1 SSH	X1	1	Monday to Saturday (except public Holidays)							
Ruthin Market Street	07:30	07:45	09:05	09:40	11:00	12:35	13:15	14:30	...	15:30	15:40	16:30	17:35								
Llanbedr DC, Griffin	07:35	07:50	09:10	09:45	11:05	12:40	13:20	14:35	...	15:45	15:45	16:35	17:40								
Llanarmon yn Ial	07:50	08:05	09:25	...	11:20	12:55	...	...	15:36	16:00	16:00	...	17:55						
Graianrhyd	...	...	09:30	...	11:25	13:00	...	...	...	16:05	...	...	...					
Eryrys	...	...	09:36	...	11:31	13:06	...	...	...	16:11	...	...	...					
Maeshafan	...	...	09:42	...	11:37	13:12	...	...	...	16:17	...	...	...					
Llanferres	07:57	08:12	...	09:54	...	...	13:29	14:44	15:43	...	16:07	16:44	18:02						
Tafarn y Gelyn	07:59	08:14	...	09:56	...	...	RR	RR	...	...	RR	RR	RR				
Loggerheads A494	08:01	08:16	...	09:58	...	...	13:33	14:48	15:37	...	16:11	16:48	18:06						
Cadole	08:02	08:17	...	09:59	...	...	13:34	14:49	15:38	...	16:12	16:49	18:07						
Gwernymynydd	08:03	08:18	09:46	10:00	11:41	13:16	13:35	14:50	15:39	16:21	16:13	16:50	18:08								
Gorsaf Bws Yr Wyddgrug /Mold Bus Station	08:08	08:23	09:51	10:05	11:46	13:21	13:40	15:02	15:44	16:26	16:18	16:55	18:13								
Padeswood				10:18			13:48														
Brychdyn / Broughton (Parc Siopa/Shopping Pk)				10:22			13:57														
Caer / Chester				10:38			14:13														
Caer / Chester (Gorsaf Trenau / Train Station)				10:40			14:15														
Caer/Chester - Brychdyn/Broughton - Yr Wyddgrug / Mold - Ruthin														M&H Coaches				1, X1 & 2			
Ger / Via - Loggerheads & Llanbedr DC																					
Dydd Llun i Sadwrn (heblaw gwyliau cyhoeddus)																					
	X1	1 SSH	2 SDO	1 DCC	2	X1	X1	2	2	X1	1	X1	2 NS	1	Monday to Saturday (except public Holidays)						
Caer / Chester (Gorsaf Trenau / Train Station)							11:15					14:20									
Caer / Chester							11:19					14:24									
Brychdyn / Broughton (Parc Siopa/Shopping Pk)							11:39					14:44									
Padeswood							11:50					14:55									
Mold Bus Station Dep	07:10	08:00	08:00	08:08	08:45	10:25	12:00	12:00	13:30	15:05	15:10	16:00	16:50	17:35							
Gwernymynydd	07:16	08:06	08:06	08:14	08:51	10:31	12:06	12:06	13:36	15:11	15:16	16:06	16:56	17:41							
Cadole	07:18	08:08	...	08:16	...	10:32	12:07	...	...	15:12	15:17	16:07	...	17:43					
Loggerheads A494	07:19	08:09	...	08:17	...	10:34	12:09	...	...	15:14	15:19	16:09	...	17:44					
Tafarn y Gelyn	...	08:11	...	08:19	...	10:36	RR	...	...	RR	15:21	RR	...	RR					
Llanferres	07:23	08:13	...	08:21	...	10:38	12:13	...	...	15:18	15:23	16:13	...	17:48					
Maeshafan	...	...	08:10	...	08:55	...	...	12:10	13:40	...	...	...	17:00	...			
Eryrys	...	...	08:16	...	09:01	...	...	12:16	13:46	...	...	...	17:06	...			
Graianrhyd	...	...	08:22	...	09:07	...	...	12:22	13:52	...	...	...	17:12	...			
Llanarmon yn Ial	...	08:20	08:27	08:28	09:12	...	...	12:27	13:57	...	15:30	...	17:17	17:55					
Llanbedr Smithy	07:29	08:32	08:39	08:40	09:24	10:44	12:09	12:39	14:09	15:24	...	16:19	17:29	18:07							
Ruthin Market Street	07:34	08:37	08:49	08:45	09:29	10:49	12:24	12:44	14:14	15:29	...	16:24	17:34	18:12							
Codau / Codes																					
Yn ddilys o / Operating from 12/04/2021																					
SDO - Gwasanaeth caeedig ar gyfer ddisgyblion ar Dyddiau Ysgol yn Unig / Closed service for Pupils only and operated on Schooldays Only																					
NS - Dim ar Dydd Sadwrn / Not Saturdays																					
RR - Ar gais i Gyrrwr / On request to Driver																					
SSH - Sadwrn a gwyliau Ysgol / Saturday and School holidays																					
DCC - Gweithredir gan Cyngor Sir Dinbych gyda bws mini 16 sedd ar Dyddiau Ysgol yn Unig / Operated by Denbighshire County Council with 16 seat minibus on Schooldays Only																					
www.sirddinbych.co.uk/teithio www.traveline.cymru Ffôn di dal 0800 464 0000 www.denbighshire.gov.uk/travel																					
Gwasanaeth 1 DCC yn gweithredu ar gais, galwch 07557930705 cyn 17:00 y diwrnod cynt i archebu																					
Service 1 DCC operates on demand, call 07557930705 before 17:00 the day before to book																					

APPENDIX 2

TRICS site search summary

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

05	EAST MIDLANDS	
	LN LINCOLNSHIRE	1 days
06	WEST MIDLANDS	
	ST STAFFORDSHIRE	1 days
	WM WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days
08	NORTH WEST	
	LC LANCASHIRE	1 days
09	NORTH	
	CB CUMBRIA	1 days
10	WALES	
	PS POWYS	1 days
14	LEINSTER	
	WC WICKLOW	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: No of Dwellings
Actual Range: 16 to 89 (units:)
Range Selected by User: 4 to 100 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 08/06/21

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	4 days
Tuesday	2 days
Friday	2 days

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

Selected survey types:

Manual count	8 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 undertaken using machines.

Selected Locations:

Edge of Town Centre	8
---------------------	---

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	7
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:

C3 8 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	3 days
10,001 to 15,000	2 days
25,001 to 50,000	3 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	4 days
125,001 to 250,000	1 days
250,001 to 500,000	3 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	1 days
0.6 to 1.0	4 days
1.1 to 1.5	3 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 8 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 8 days

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

LIST OF SITES relevant to selection parameters

1	CB-03-A-05 MACADAM WAY PENRITH	DETACHED/TERRACED HOUSING	CUMBRIA
	Edge of Town Centre Residential Zone Total No of Dwellings:	50	
	Survey date: TUESDAY	21/06/16	Survey Type: MANUAL
2	LC-03-A-30 WATSON ROAD BLACKPOOL	SEMI-DETACHED	LANCASHIRE
	Edge of Town Centre Residential Zone Total No of Dwellings:	24	
	Survey date: FRIDAY	14/06/13	Survey Type: MANUAL
3	LN-03-A-04 EGERTON ROAD LINCOLN	DETACHED & SEMI-DETACHED	LINCOLNSHIRE
	Edge of Town Centre Residential Zone Total No of Dwellings:	30	
	Survey date: MONDAY	29/06/15	Survey Type: MANUAL
4	NY-03-A-12 RACECOURSE LANE NORTHALLERTON	TOWN HOUSES	NORTH YORKSHIRE
	Edge of Town Centre Residential Zone Total No of Dwellings:	47	
	Survey date: TUESDAY	27/09/16	Survey Type: MANUAL
5	PS-03-A-01 BRYN GLAS WELSHPOOL	MIXED HOUSES	POWYS
	Edge of Town Centre Residential Zone Total No of Dwellings:	16	
	Survey date: MONDAY	11/05/15	Survey Type: MANUAL
6	ST-03-A-06 STANFORD ROAD WOLVERHAMPTON BLAKENHALL	SEMI-DET. & TERRACED	STAFFORDSHIRE
	Edge of Town Centre No Sub Category Total No of Dwellings:	17	
	Survey date: FRIDAY	09/05/14	Survey Type: MANUAL
7	WC-03-A-02 MARLTON ROAD WICKLOW FRIARSHILL	DETACHED HOUSES	WICKLOW
	Edge of Town Centre Residential Zone Total No of Dwellings:	45	
	Survey date: MONDAY	28/05/18	Survey Type: MANUAL
8	WM-03-A-05 COUNDON ROAD COVENTRY	TERRACED & DETACHED	WEST MIDLANDS
	Edge of Town Centre Residential Zone Total No of Dwellings:	89	
	Survey date: MONDAY	21/11/16	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
HO-03-A-02	Location
WF-03-A-02	Location

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

MULTI-MODAL TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	8	40	0.088	8	40	0.242	8	40	0.330
08:00 - 09:00	8	40	0.170	8	40	0.377	8	40	0.547
09:00 - 10:00	8	40	0.189	8	40	0.154	8	40	0.343
10:00 - 11:00	8	40	0.126	8	40	0.154	8	40	0.280
11:00 - 12:00	8	40	0.135	8	40	0.142	8	40	0.277
12:00 - 13:00	8	40	0.145	8	40	0.186	8	40	0.331
13:00 - 14:00	8	40	0.189	8	40	0.176	8	40	0.365
14:00 - 15:00	8	40	0.186	8	40	0.214	8	40	0.400
15:00 - 16:00	8	40	0.217	8	40	0.160	8	40	0.377
16:00 - 17:00	8	40	0.274	8	40	0.154	8	40	0.428
17:00 - 18:00	8	40	0.333	8	40	0.179	8	40	0.512
18:00 - 19:00	8	40	0.230	8	40	0.201	8	40	0.431
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.282			2.339			4.621

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.

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Parameter summary

Trip rate parameter range selected:	16 - 89 (units:)
Survey date range:	01/01/13 - 08/06/21
Number of weekdays (Monday-Friday):	8
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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

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