

Transport Statement

Proposed Residential Development Meliden Road, Dyserth

Macbryde Homes Ltd

May 2020

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1.0 INTRODUCTION

General

- 1.1 SCP have been instructed by Macbryde Homes Ltd to produce a Transport Statement (TS) in support of a planning application for a residential development, comprising 33 dwellings, on a plot of land located to the south of the A547 and to the west of Maes Esgob in Dyserth.
- 1.2 This TS provides an assessment of the traffic and transport implications associated with the development proposals to inform Denbighshire County Council (DCC), as the local highway and planning authority regarding the nature and magnitude of their impact.

Background

- 1.3 The application site forms part of a wider site which is allocated for housing (indicative yield of 99 dwellings) and public open space in Denbighshire's Local Development Plan 2006 2021 (LDP) which was adopted in June 2013. The principle of residential development on this site is therefore acceptable to DCC.
- 1.4 Macbryde Homes submitted a planning applications to DCC on the 20th September 2018 (Application Reference: 42/2018/0923) for a residential development, comprising 61 dwellings, on a plot of land located immediately to the north of the application site, as shown in blue on Figure 2.2 later. It should be noted that this plot of land forms the largest part of the allocated site to which the application site forms the remaining section.
- 1.5 The aforementioned application was supported by a detailed Transport Assessment (TA) and site access drawing, based on DCC's design requirements, and the application was subsequently approved on 10th April 2019.

Structure of This Report

- 1.6 The structure of this report is as follows:-
 - Chapter 2 describes in detail the site location, local transport network and existing use of the site;
 - Chapter 3 defines the development proposals including the proposed access, servicing arrangements and parking;

- Chapter 4 considers the location of the site with regard to the existing local sustainable transport infrastructure;
- Chapter 5 presents estimates of the trip-generating potential of the site along with a summary of the impact of the development on the local highway network; and,
- Chapter 6 provides the summary and conclusions to the above chapters.



2.0 EXISTING CONDITIONS

General

2.1 This Chapter provides a detailed description of the location of the site, the local highway network and the road safety record.

Site Location

2.2 The application site comprises an area of undeveloped land located to the south of the A547 and to the east of Maes Esgob on the western edge of Dyserth. **Figure 2.1** below shows the site location in relation to the wider highway network.

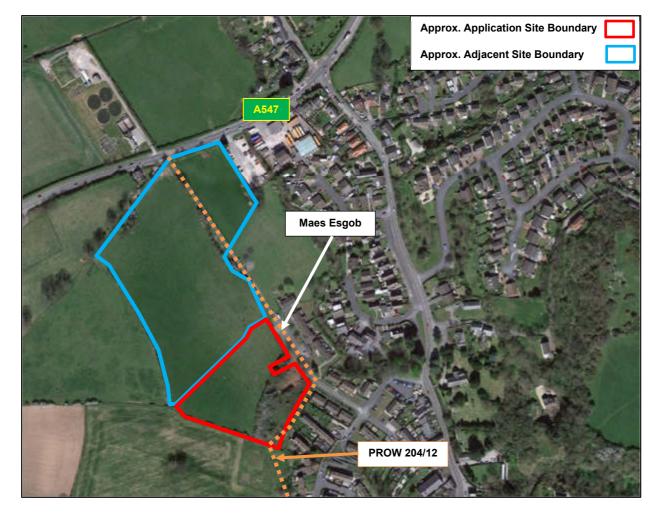


Figure 2.1 – Site Location – Wider Highway Network

2.3 The application site boundary is shown in red in relation to the local highway network and the approved adjacent site (Application Reference: 42/2018/0923), detailed earlier, on **Figure 2.2** below.



Figure 2.2 – Site Location Plan – Local View



2.4 As shown above, PROW 204/12 runs along Maes Esgob, parallel to the application site, and then along the south-eastern site boundary, cutting across a small portion of the application site at the south-east corner.

Local Highway Network

Maes Esgob

2.5 Maes Esgob fronts the north-eastern site boundary and connects a residential cul-de-sac to the east of the site with the B5119 Waterfall Road. Maes Esgob, which is subject to a 30mph speed limit, is a residential cul-de-sac and has a carriageway width of approximately 4.8m. In the vicinity of the site, regularly spaced street lighting columns and a footway are provided on the east side of Maes Esgob and a footway is provided on both sides of the road to the south-east of the site.



<u>A547</u>

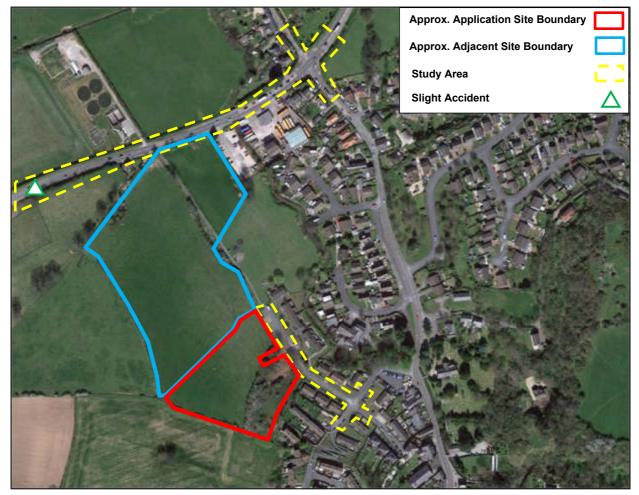
- 2.6 The A547 is located to the north of the site and fronts the northern boundary of the wider allocated / approved site. The A547 locally links the A547 / Dyserth Road / B5119 Waterfall Road signalised junction, to the north-east of the site, with the A547 / A5151 New Road / Rhyl Road 4-arm priority-controlled roundabout to the south-west of the site. The carriageway width of the A547 varies however, in the vicinity of the site, the carriageway width measures approximately 7.0m which includes a hatched central reservation measuring slightly over 1m in width.
- 2.7 The speed limit of the A547 varies in the vicinity of the site. The A547 is subject to a 40mph speed limit to the east of the site and the national speed limit to the west of the site with the change in speed limit located to the west of the site frontage on the A547.
- 2.8 In the vicinity of the site, the A547 benefits from a shared footpath/cycleway to the north of the carriageway, a footpath to the south and regularly spaced street lighting on the southern side of the carriageway to the north-east of the site.

Existing Road Safety

2.9 In order to identify critical locations on the network with a poor accident record, the personal injury accident data has been obtained from the online resource CrashMap for the most recently available 5-year period. The location and severity of any accidents within the study area during this period, are shown in **Figure 2.3** below.



Figure 2.3 – Road Safety Record



- 2.10 The analysis shows that only 1 accident was recorded in the study area during the 5-year study period. No accidents occurred in the vicinity of the site access or on the entire length of Maes Esgob which fronts the north-eastern site boundary. The recorded accident resulted in a slight severity injury and took place in 2016 on the A547, approximately 180m south-west of the recently approved site access to the adjacent site.
- 2.11 The evidence presented above and illustrated in **Figure 2.3** suggests that the area in the vicinity of the site does not have any recurring highway safety problems that could be affected by the development proposals.



3.0 PROPOSED DEVELOPMENT

General

- 3.1 The development proposals consist of the construction of a residential development, comprising 33 dwellings, on a plot of land located to the south of the A547 and to the west of Maes Esgob in Dyserth. The housing mix consists of:
 - 4 no. 1-bed apartments;
 - 6 no. 2-bed dwellings;
 - 7 no. 3-bed dwellings; and,
 - 16 no. 4-bed dwellings
- 3.2 The proposed site layout plans are contained in **Appendix A**.

Proposed Site Access Arrangements

- 3.3 As detailed earlier, a planning application (Application Reference: 42/2018/0923) was approved for a residential development, comprising 61 dwellings, on a plot of land located immediately to the north of the application site. The approved access for this site takes the form of a prioritycontrolled access off the A547 and was based on DCC's design requirements.
- 3.4 As shown on the site layout plan, presented in **Appendix A**, vehicular access is proposed from the approved site access off the A547 via a continuation of the approved residential spine road to the north of the site. The spine road is designed to typical residential standards, measuring 5.5m in width and benefitting from 2m footways on both sides of the road.

Pedestrian and cycle access into the site will be provided at the same location as the vehicular access and an additional pedestrian access is provided to the south of the site as well as onto the existing PROW to the south-east, which connects the site to Maes Esgob.

Internal Site Layout and Servicing

- 3.5 As detailed earlier, the site is accessed off the A547 via a continuation of the approved residential spine road to the north of the site, which measures 5.5m in width. This spine road connects to a more minor 4.8m residential road and 4.8m wide private drives.
- 3.6 The alignment of the proposed carriageway and the carriageway geometries have been designed to allows for a 20m design speed.



3.7 In order to demonstrate that the site can be serviced sufficiently, swept path analysis of a large 4-axle refuse vehicle has been undertaken. SCP drawing SCP\200248\ATR01 is presented in **Appendix B** and illustrates the swept path analysis of this vehicle. The drawing demonstrates that a vehicle of this size can enter the site via the site access, turn within the site at appropriate points, and exit the site in a forward gear.

Parking

- 3.1 Local parking standards are set out in DCC's Supplementary Planning Guidance 3. This specifies the following maximum parking standards:
 - 1-bed dwellings 1.5 spaces per unit;
 - 2-bed dwellings 2 spaces per unit;
 - 3-bed and 4-bed dwellings 3 spaces per unit; and,
 - 5 bed dwellings 4 spaces per unit
- 3.2 As shown in **Appendix A**, and the level of parking to be provided is in line with DCC's maximum standards.

4.0 ACCESSIBILITY

General

- 4.1 This Chapter presents a review of the accessibility of the site by walking, cycling and public transport modes.
- 4.2 As detailed earlier, the application site is allocated for housing in Denbighshire's LDP and the acceptability of residential development on this site has therefore already been deemed acceptable to DCC.
- 4.3 The accessibility of the site by non-car modes has been assessed by comparison with the following threshold distances, as set out by Andrew Davies AM 'Minister for Economic Development and Transport' in his foreword to the 2003 *"Walking and Cycling Strategy for Wales"* document:-

Threshold Distance	Significance	Reference
1 mile	Walking can offer viable and attractive	Walking and Cycling
	alternatives [to car trips]	Strategy for Wales
5 miles	Cycling can offer viable and attractive	Walking and Cycling
	alternatives [to car trips]	Strategy for Wales

Table 5.1 – Walk / Cycle Distance Thresholds

Pedestrian Accessibility

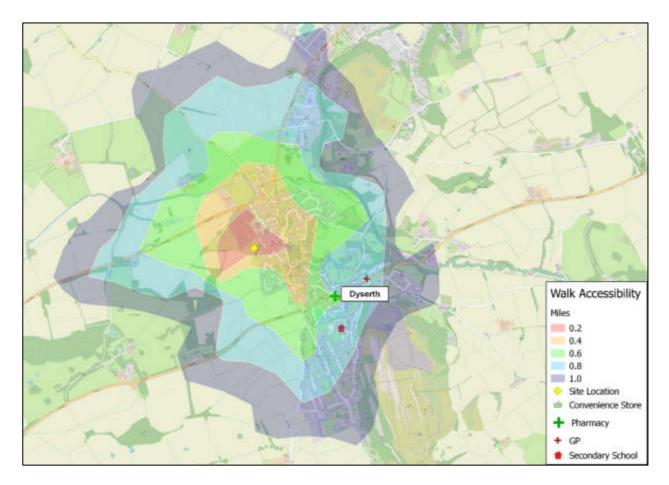
- 4.4 The site is within acceptable walking distance of Dyserth Centre, where a number of local amenities can be found. The nearest bus stop to the site is located on Waterfall Road approximately 350m to the east of the site.
- 4.5 **Table 5.2** below identifies a selection of key facilities within the immediate vicinity of the site, including fresh food, healthcare and transport connections.

Table 5.2 – Local Facilities

Facility	Details	Distance from the Development Site (miles)
Bus Stop	Glan Ffyddion Bus Stop	0.2
Bus Stop	Graig Park Hotel Bus Stop	0.5
Pharmacy	Morgan P A Pharmacy	0.5
Convenience Store	Spar, High Street	0.5
Post Office	Dyserth Post Office, High Street	0.5
ATM	Spar, High Street	0.5
Doctors	Quarry House Doctors Surgery	0.7
Secondary School	Ysgol Hiraddug High School	0.7
Primary School	Ysgol Melyd Primary and Nursery School	1.0
Nursery	Ysgol Melyd Primary and Nursery School	1.0

- 4.6 The A547 benefits from a footpath on the southern side of the carriageway and a footpath/cycleway on the northern side of the carriageway. The A547 also benefits from a signalised pedestrian crossing at the junction with Dyserth Road and Waterfall Road to aid pedestrians crossing and improve pedestrian safety.
- 4.7 Maes Esgob fronts the north-eastern site boundary and is an extremely lightly trafficked road that provides a connection between the site and Waterfall Road. Regularly spaced street lighting columns and a footway are provided on the east side of Maes Esgob and a footway is provided on both sides of the road to the south-east of the site.
- 4.8 The pedestrian accessibility of the development has been modelled using the Geographical Information System (GIS) software TRACC to produce isochrone mapping figures. The purpose of the isochrones is to demonstrate the areas within an acceptable walking distance of 1 mile of the site. The areas located within 1 mile walking distance of the site are shown below on Figure 5.1

Figure 5.1 – Walk Accessibility

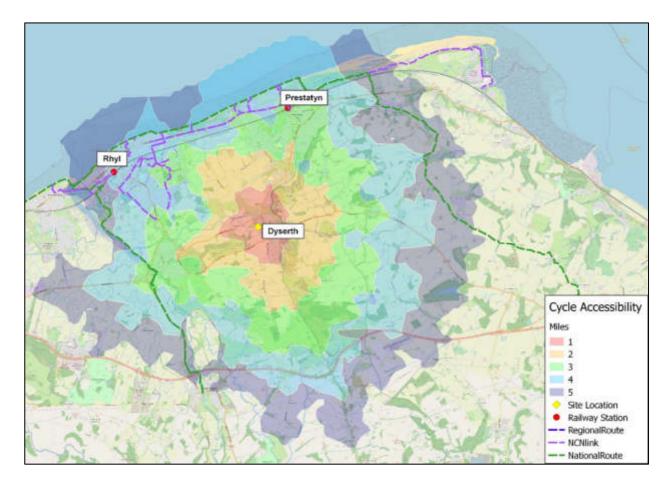


Cycle Accessibility

- 4.9 PPW identifies that "Cycling should also be encouraged for short trips and as a substitute for shorter car journeys or, as part of a longer journey when combined with public transport."
- 4.10 TRACC software has been used to assess the accessibility of the development by bicycle from the site. Isochrones illustrating the areas which lie within 5 miles of the site can be seen on the Figure 5.2 below.



Figure 5.2 – Cycle Accessibility



- 4.11 The plan demonstrates that Rhyl and Prestatyn Railway Stations are both located within an acceptable 5-mile cycle catchment.
- 4.12 National cycle Route 84 runs to the west of the site and locally connects Rhyl to Rhuddlan. Route5 runs along the coast of North Wales to the north of the site and locally connects Rhyl andPrestatyn. Figure 5.3 below shows the national cycle routes in the vicinity of the site.



Figure 5.3 – Sustrans Extract



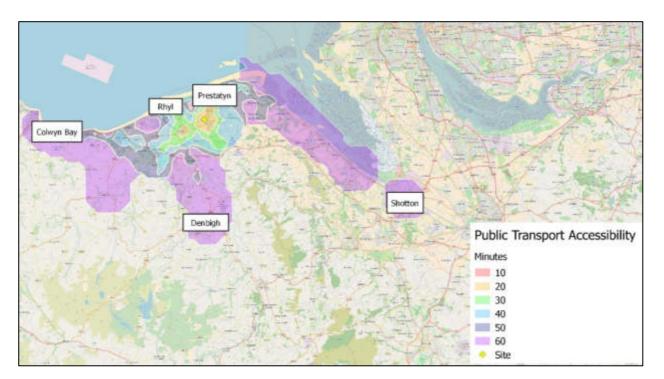
Public Transport

- 4.13 The development is well placed to encourage travel by bus. Guidance published by the CIHT 'Planning for Public Transport in Developments' (1999), recommends that *"Bus stops are located to minimise passengers' walking distance to their final destination. The maximum walking distance to a bus stop should not exceed 400m and preferably be no more than 300m."*
- 4.14 There is a bus stop located on Waterfall Road approximately 350m to the east of the site which serves bus services no. 19, 35 and 36. There is an additional bus stop which falls outside the maximum distance set out in the above CIHT guidelines, this bus stop serves bus services no. 13. Details of the bus services and frequencies which use these stops are provided in Table 5.3 below:-

Table 5.3 – Bus Services:

Service Number	Route	Average Service Headway (mins)		
		Mon- Fri	Sat	Sun
13	Llandudno – Colwyn Bay – Abergele – Dyserth – Prestatyn	60	60	60
19	Flint – Bagillt – Holywell – Whitford – Trelawnyd – Dyserth – Prestatyn	120	-	-
35	Rhyl – Prestatyn – Dyserth	60	60	120
36	Rhyl – Rhuddlan – Dyserth – Prestatyn	60	60	120

- 4.15 The above table demonstrates that prospective residents of the site will have access to bus services stopping close to the site which provide access to key destinations at a reasonable combined frequency.
- 4.16 In terms of rail services, Rhyl Railway Station is located approximately 4 miles to the north west of the site and is therefore is within an acceptable cycling distance.
- 4.17 Rhyl Railway Station provides bicycle parking for 10 bikes as well as a car park for up to 100 vehicles. The station provides regular services to destinations such a Holyhead, Manchester Airport and Llandudno Junction, amongst others.
- 4.18 The level of accessibility by public transport has been analysed using GIS TRACC software to assess the accessibility of the site and is shown on **Figure 5.4** overleaf. The figure illustrates the distance that can be travelled within 60 minutes by public transport to and from the site, which includes the time taken to walk to the bus stops.





4.19 **Figure 5.4** demonstrates that, Colwyn Bay, Rhyl, Shotton and Denbigh, amongst others, are in an acceptable 60 minute commute time.

Summary

4.20 Overall, the site is considered to be reasonably well located in terms of its accessibility by all the major non-car modes of transport. These findings demonstrate that future residents will not be wholly reliant on the private car to travel for employment, education, leisure and retail purposes. Furthermore, given that the site is accolated in DCC's LDP, the principle of residential development on the application site has already been deemed acceptable to DCC.



5.0 TRIP GENERATION

<u>General</u>

5.1 This Chapter provides an estimate of the vehicular, pedestrian, public transport and cycle trips likely to be generated by the proposed development.

Proposed Trip Generation

5.2 In order to estimate the trip generating potential of the proposed development, average trip rates have been obtained from the TA submitted as part of the application for the recently approved residential scheme to the north of the site. The multi-modal trip rates are summarised in Table 5.1 below:-

Table 5.1 - Estimated Trip Rates (Per Dwelling) Associated with the Proposed Development				
Mode	Weekday AM Peak Hour		Weekday PM Peak Hour	
	Arrivals	Departures	Arrivals	Departures
Vehicles	0.155	0.397	0.362	0.124
Cycles	0.000	0.029	0.023	0.006
Pedestrians	0.020	0.066	0.055	0.023
Pub. Trans.	0.006	0.006	0.009	0.003

5.3 The estimated trip generation associated with the proposed development is therefore as summarised in **Table 5.2** below:-

Table 5.2 – Estimated Trip Generation – 33 Dwellings				
Mode	Weekday AM Peak Hour		Weekday PM Peak Hour	
	Arrivals	Departures	Arrivals	Departures
Vehicles	5	13	12	4
Cycles	0	1	1	0
Pedestrians	1	2	2	1
Pub. Trans.	0	0	0	0



- 5.4 As detailed above, it is estimated that the scheme will generate a total of 18 two-way vehicle movements in the AM peak hour and 16 two-way vehicle movements in the PM peak hour. Volumetrically, this equates to around 1 additional vehicle movement every 3-4 minutes in the AM peak hour and 1 additional vehicle movement every 4 minutes or so in the PM peak hour. The effect of this additional traffic on the local highway network will be barely perceptible during the peak hours and less so outside of the peak periods.
- 5.5 Having regard to the above, it is therefore considered that no further detailed assessment of the local highway network is required and that the traffic impact of the scheme is acceptable in planning terms.

6.0 SUMMARY AND CONCLUSIONS

- 6.1 Macbryde Homes Ltd seek planning permission for a residential development, comprising 33 dwellings, on a plot of land located to the south of the A547 and to the west of Maes Esgob in Dyserth.
- 6.2 The most recently available five-year road safety record of the local area around the site has been examined and does not represent a material concern in the context of the development.
- 6.3 A planning application (Application Reference: 42/2018/0923) was approved for a residential development, comprising 61 dwellings, on a plot of land located immediately to the north of the application site. The approved access for this site takes the form of a priority-controlled access off the A547 and was based on DCC's design requirements. Vehicular access is proposed from this approved site access via a continuation of the approved residential spine road to the north of the site. Pedestrian and cycle access into the site will be provided at the same location as the vehicular access and an additional pedestrian access is provided to the south of the site as well as onto the existing PROW to the south-east, which connects the site to Maes Esgob.
- 6.4 The accessibility of the site has been assessed by walk, cycle, and bus and train modes. Overall, the site is considered to be reasonably well located in terms of its accessibility by all the major non-car modes of transport. These findings demonstrate that future residents will not be wholly reliant on the private car to travel for employment, education, leisure and retail purposes. Furthermore, the application site is allocated for housing in Denbighshire's LDP and the acceptability of residential development on this site has therefore already been deemed acceptable to DCC.
- 6.5 The volume of traffic generated by the proposed development will not have a material impact on the operation of the local highway network and the effect of the additional traffic will be barely perceptible during the highway peak hours.
- 6.6 Having regard to the analysis presented in this TS, it is considered that there should be no highway related reason to withhold planning permission and the scheme is therefore commended to DCC for approval.

S|C|P Appendix A



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S|C|P APPENDIX B

