

Petre Wood, Phase 3,
Langho, Blackburn

Transport Statement

Report Prepared for

Darwen Estates Ltd

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Report Reference 1666/1



Transport Statement

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Transport Statement

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1666/01: Proposed Site Access Arrangements
1666/SP/01: Swept Path Analysis: Refuse Vehicle

1 Introduction

- 1.1 Ashley Helme Associates Limited (AHA) are appointed by Darwen Estates Ltd to prepare a Transport Statement (TS) to support the planning application for the proposed residential development at Petre Wood, Langho, Blackburn (henceforth referred to as the Site). The location of the Site is indicated on Figure 1.
- 1.2 The Site is presently vacant grassland.
- 1.3 The proposed development comprises up to 32 dwellings. This application is referred to as Phase 3.
- 1.4 A Phase 1 residential scheme at Petre Wood (planning ref 3/2007/0555 for 45no dwellings) was granted planning consent in 2009. The Phase 1 scheme is served from an access on Longsight Road. The access road is called Petre Wood Crescent and provides access to Petre Wood Close and Petre Wood Drive. The Phase 1 scheme is fully constructed and occupied.
- 1.5 A Phase 2 residential scheme at Petre Wood (planning ref 3/2013/0113 for 25no dwellings) was granted planning consent in 2013 and this is served via an extension of Petre Wood Crescent. The Phase 2 scheme is fully constructed and occupied.
- 1.6 It is proposed that the Phase 3 scheme is served via an extension of Petre Wood Crescent.
- 1.7 The issues addressed within this TS fall broadly into the following areas:
- Accessibility by non-car modes, and
 - The vehicular traffic impact on the operational performance of the local highway network.
- 1.8 The local highway network is described in Chapter 2. The proposed Site access arrangements are outlined in Chapter 3.

- 1.9 The accessibility of the Site by choice of mode is considered in Chapter 4.
- 1.10 The traffic impact of the proposed residential development is assessed in Chapter 5.
The summary and conclusions of the TS are presented in Chapter 6.

2 Highway Network

2.1 The location of the Phase 3 Site is indicated on Figure 1 in the context of the local highway network.

2.2 Access to the proposed development is via the existing Phase 1 & Phase 2 schemes at Petre Wood.

2.3 EXISTING CONDITIONS

2.3.1 Petre Wood Crescent

2.3.1.1 Petre Wood Crescent currently serves 70no dwellings which were constructed as part of Phase 1 & 2. Petre Wood Crescent measures circa 5.5m wide and is subject to a 20mph speed limit. There is street lighting and footway present on both sides of the road. The footway measures circa 2.0m wide.

2.3.1.2 Petre Wood Crescent forms a priority controlled junction with Longsight Road.

2.3.2 Longsight Road

2.3.2.1 Longsight Road is aligned in a general west to east orientation and measures circa 8.9m wide in the vicinity of the Site. There is street lighting and footway present on the northern side of the road. Longsight Road is subject to a 30mph speed limit.

2.3.2.2 Longsight Road serves the Petre Wood development.

2.3.3 Whalley Road

2.3.3.1 Whalley Road provides links to Billington to the east and Langho to the south west. Whalley Road forms a junction with the A59 to the west of the Site.

2.3.3.2 Whalley Road measures circa 9.5m wide and is subject to a 30mph speed limit and there is street lighting. There is footway on the north side of the road, to the east of the junction with Longsight Road. There is continuous footway on the south side of

Whalley Road. There are on-road cycle lanes provided on both sides of Whalley Road that measure circa 1.4m wide.

- 2.3.3.3 Whalley Road is a bus route and there is an eastbound bus stop in the vicinity of Petre Arms public house. The westbound bus stop is provided on the south side of Whalley Road opposite the petrol filling station.

2.4 **ACCIDENT HISTORY**

- 2.4.1 The Crashmap website has been interrogated for the latest available five-year accident records on Petre Wood Crescent, Petre Wood Close, Petre Wood Drive, Longsight Road and Whalley Road in the vicinity of the Site. The accident data covers the 5-year period from 2014 to 2018.
- 2.4.2 The Crashmap accident data shows that there were no recorded accidents on Petre Wood Crescent and Petre Wood Close. The Crashmap accident data recorded a single accident at the Longsight Road/Whalley Road junction in the vicinity of the Site. The accident was recorded in 2015 and was Slight in severity.
- 2.4.3 It is concluded that there is **no** recurring accident problem/pattern that raises concern or that gives rise to the need for accident remediation measures.

3 Proposed Site Access Arrangements

3.1 ACCESS PROPOSALS

It is proposed that vehicular access to the Site is via an extension of Petre Wood Crescent.

3.2 DESIGN CONSIDERATIONS

3.2.1 'Manual for Streets'(MfS) and the complementary 'Manual for Streets 2' (MfS2) provide guidance on the geometric criteria for the design of residential roads. These represent the most current national guidance and advice. Much of the content of the initial MfS is explicitly incorporated within the MfS2, and there is consistency between MfS and MfS2.

3.2.2 A key role of MfS2 is to consider the application of the principles and parameters identified in MfS to a wider context of road and junction conditions. The exploration of this, during the course of the preparation of MfS2, included undertaking new research. The results of the MfS2 original research inform the conclusions and guidance presented in MfS2.

3.2.3 MfS2 explicitly states that:

"...most MfS advice can be applied to a highway regardless of speed limit. It is therefore recommended that as a starting point for any scheme affecting non-trunk roads, designers should start with MfS." (para 1.3.2)

3.3 SITE ACCESS GEOMETRY

3.3.1 There is an existing stub road at the end of Petre Wood Close. It is proposed that the stub road is extended eastwards to form the proposed Site access. The geometry of the proposed extension is:

- 5.5m wide carriageway,

- 2.0m wide footway on both sides of the road.

3.3.2 The proposed access arrangements are indicated on Drg No 1666/01.

3.4 **PARKING**

The proposed development provides 2no parking spaces per dwelling. This level of parking provision was agreed with LCC for the most recent Phase 2 development at Petre Wood and hence it is considered appropriate for the proposed development.

3.5 **SERVICING**

A swept path analysis has been undertaken of the proposed site layout to demonstrate that a refuse vehicle can serve the Site. This is shown on Drg No 1666/SP/01. The swept path analysis demonstrates that the internal Site layout can accommodate the refuse vehicle with a turning head proposed to enable the vehicle to enter and exit the Site in forward gear.

3.6 **SUMMARY**

It is considered that the proposed Site access arrangements provide a suitable means of serving the proposed development.

4 Accessibility By Non-Car Modes

4.1 WALK

4.1.1 It is established and acknowledged that walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under 2 kilometres.

4.1.2 The CIHT provides guidance about journeys made on foot. It does not provide a definitive view of distances, but does suggest a preferred maximum distance of 2000m for walk commuting trips. A 400m distance corresponds to a walk time of five minutes, based upon typical normal walking speed. Figure 2 presents the 5, 10, 15, 20 and 25 minute walk time isochrones for the Site, (ie reflecting 400m, 800m, 1200m, 1600m and 2000m distances).

4.1.3 The Department for Transport (DfT) National Travel Survey of 2017 confirms that 80% of all trips less than a mile (1.6km) are carried out on foot. There are a variety of amenities indicated on Figure 2 that lie within 1.6km of the Site. Based on the NTS data, it is reasonable to assume the majority of trips between the Site and these amenities will be undertaken on foot.

4.1.4 The 'walkable neighbourhood' concept is set out in MfS1 and endorsed in MfS2. MfS1 explains that:

*"Walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes' (up to about 800 m) walking distance of residential areas which residents may access comfortably on foot. However, this is **not an upper limit** and walking offers the greatest potential to replace short car trips, particularly those under 2 km."* (MfS1 para 4.4.1)

4.1.5 Indicated on Figure 2 are local facilities near to the Site. This illustrates that the amenities within an 800m (a 10 minute) walk of the Site, include:

- Travel: Bus stops,
- Education: Primary school,

- Shopping: Convenience store,
- Community: Place of worship, community centre,
- Leisure: Public house, restaurant/bar, sports ground/club, public open space.

4.2 PUBLIC RIGHTS OF WAY

4.2.1 Figure 3 presents the existing Public Rights of Way (PROW) in the vicinity of the Site.

4.2.2 The PROW network in the vicinity of the Site provides opportunity for residents of the proposed development to undertake leisure routes to the north, east and south of the development Site. Public Footpath No 3-6-FP7 runs through the Phase 2 development and a footpath connection is provided to the north between property nos 53 & 55 Petre Wood Crescent.

4.3 CYCLE

4.3.1 It is recognised that cycling also has potential to substitute for short car trips, particularly those under 5 kilometres and to form part of a longer journey by public transport.

4.3.2 The CIHT guidance 'Cycle Friendly Infrastructure' (2004) states that:

"Most journeys are short. Three quarters of journeys by all modes are less than five miles (8km) and half under two miles (3.2km) (DOT 1993, table 2a). These are distances that can be cycled comfortably by a reasonably fit person."(para 2.3)

4.3.3 Figure 4 indicates the 2km and 5km cycle isochrones for the Site, reflecting typically 10 minute and 25 minute journeys. Review of Figure 4 highlights that Langho, Billington, Whalley and Wilpshire can be accessed by cycle.

4.3.4 There are on-road cycle lanes provided on both sides of Whalley Road that measure circa 1.4m wide. There is a signed on-road cycle route along Whalley Road and A666 towards Langho rail station.

4.3.5 National Cycle Network (NCN) Route 90 runs through Billington to the north-east of the Site within a circa 1.4km cycle of the Site. NCN 90 is an on-road cycle route that can be joined at the junction of Whalley Road and Elker Lane. NCN Route 90 is the northern loop of the Lancashire Cycleway and provides linkage to Whalley, Old Langho and Ribchester amongst other local villages.

4.3.6 The existing cycle infrastructure and links to nearby villages provides good opportunity for residents to undertake journeys to/ from the Site by cycle for a variety of purposes.

4.4 **BUS**

4.4.1 The proposed development affords opportunity for development generated public transport journeys to be made by bus.

4.4.2 Figure 2 shows the location of existing bus stops near to the Site. Bus stops are located on Whalley Road within a circa 330m walk from the Site centroid. The bus stops on the north side of the road provides a flag and pole arrangement. The bus stop on the south side of Whalley Road provides full layby provision and a shelter with timetable information.

4.4.3 Table 1 summarises the scheduled bus services calling at the bus stops within 400m of the Site, and the frequency of the services.

4.4.4 The bus stops located on Whalley Road are served by service Nos 22 & 280. The 22 service operates on a 30 minute frequency between Clitheroe and Shadsworth via Langho and Blackburn. The 280 service operates every 60 minute between Preston and Skipton via Clitheroe and Whalley.

4.4.5 There are a number of school services that call on Whalley Road. The bus services and the schools they serve are listed below:

Service	School
458/464/616	Ribblesdale High School
522/616/638	St Augustines Roman Catholic High School
859	Clitheroe Royal Grammar School

4.4.6 The services along Whalley Road provide 3 buses per hour in each direction on a typical weekday, representing 6 buses per hour in both directions.

4.4.7 The 22 bus service calls on A666 Whalley Road within a 100m walk of Langho rail station.

4.5 **RAIL**

4.5.1 Langho rail station is located circa 1100m from the Site (refer Figure 2).

4.5.2 The rail station is operated by Northern. The services typically operate every 60 minutes between Clitheroe and Manchester Victoria via Blackburn. There are additional services provided during the typical commuter peak periods. The typical journey time of services are as follows:

Destination	Journey Time
Clitheroe	12 to 13 minutes
Blackburn	12 to 18 minutes
Darwen	19 to 25 minutes
Bolton	41 to 48 minutes
Manchester Victoria	63 to 68 minutes

4.5.3 There is continuous footway connecting the site to the rail station. There is a signed on-road cycle route along Whalley Road and A666 towards the rail station.

4.5.4 The bus stops that call on Whalley Road in the vicinity of the Site provide services that call on the A666 within 100m of Langho rail station. Thus, an integrated bus/rail journey to/from the Site provides further sustainable travel opportunities for a range of journey purposes.

4.5.5 There is very good opportunity for residents of the proposed development to commute to/from work by train.

4.6 SUMMARY

Transport sustainability is a principle underlying the proposed development. Encouraging walk, cycle and public transport journeys is recognised as important, and the existing infrastructure provides very good opportunity for journeys to and from the Site to be undertaken by sustainable modes.

5 Traffic Flows

5.1 PEAK PERIODS

The times when the combination is greatest of traffic generated by the proposed residential development and existing highway network traffic are the weekday AM and PM peak hours.

5.2 GENERATED TRAFFIC: PROPOSED DEVELOPMENT

5.2.1 The proposed development comprises up to 32no houses. It is necessary to estimate the traffic generated by the proposed houses to assess the traffic impact of the proposed development.

5.2.2 In order to derive a suitable trip rate to estimate the traffic that could be generated by the proposed development, a traffic survey was carried out at the Longsight Road/Whalley Road junction. The traffic survey recorded movements to/from Petre Wood Crescent that are generated by the constructed 70no dwellings on the Phase 1 & 2 sites.

5.2.3 The traffic survey derived trip rates are as follows:

	ARR	DEP	2-WAY
AM Peak Hour (0800-0900)	0.157	0.471	0.628
PM Peak Hour (1615-1715)	0.443	0.200	0.643

5.2.4 The consequent estimate of the traffic generated by the proposed development in the AM & PM peak hours is:

	ARR	DEP	2-WAY
AM Peak Hour (0800-0900)	5	15	20
PM Peak Hour (1700-1800)	14	6	20

- 5.2.5 Review of Table 3 shows that the proposed development is estimated to generate **20** (two-way) vehicle trips in both the AM & PM peak hours. This represents, on average, only one vehicle movement associated with the proposed development every 3 minutes.
- 5.2.6 It is concluded that the proposed development has **no material traffic impact** and hence, further quantitative analysis is **not** required.

6 Summary & Conclusions

- 6.1 Ashley Helme Associates Ltd (AHA) are appointed by Darwen Estates Ltd to prepare a Transport Statement to support the planning application for the proposed residential development at Petre Wood, Langho, Blackburn. The location of the Site is indicated on Figure 1, in the context of the local highway network.
- 6.2 The Site is presently vacant grassland. The proposed development comprises up to 32no dwellings.
- 6.3 It is proposed that vehicular access to the Site is via an extension of Petre Wood Crescent. The proposed access arrangements are presented on Drg No 1666/01. It is concluded that the proposed access arrangements are suitable for the proposed development.
- 6.4 The accessibility of the Site by non-car modes is reviewed and it is demonstrated that there is very good opportunity for residents of the Site to undertake trips on foot, by cycle and by public transport. This is fully in accordance with national and local policy aims and objectives.
- 6.5 Comprehensive analysis is undertaken of the traffic impact of the proposed development on the local highway network. It is concluded that the proposed development will **not** have a material traffic impact on the existing highway network.
- 6.6 A comprehensive appraisal of the transport impacts of the proposed development is undertaken. It is concluded that the proposed development is in accordance with national and local transport policies, and that there are no transport/highways reasons for refusal of planning permission.

Figures

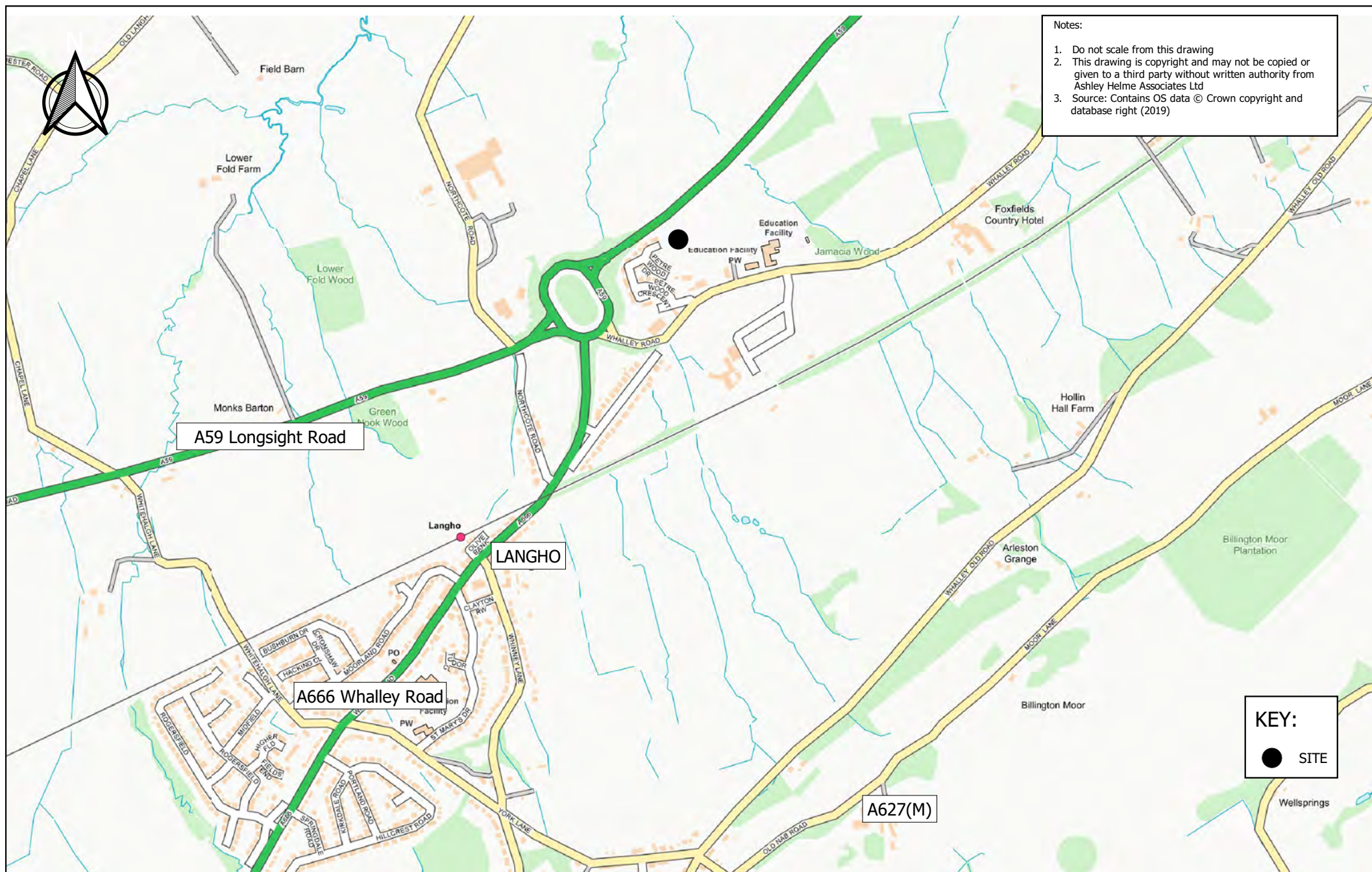


FIGURE 1 LOCATION PLAN

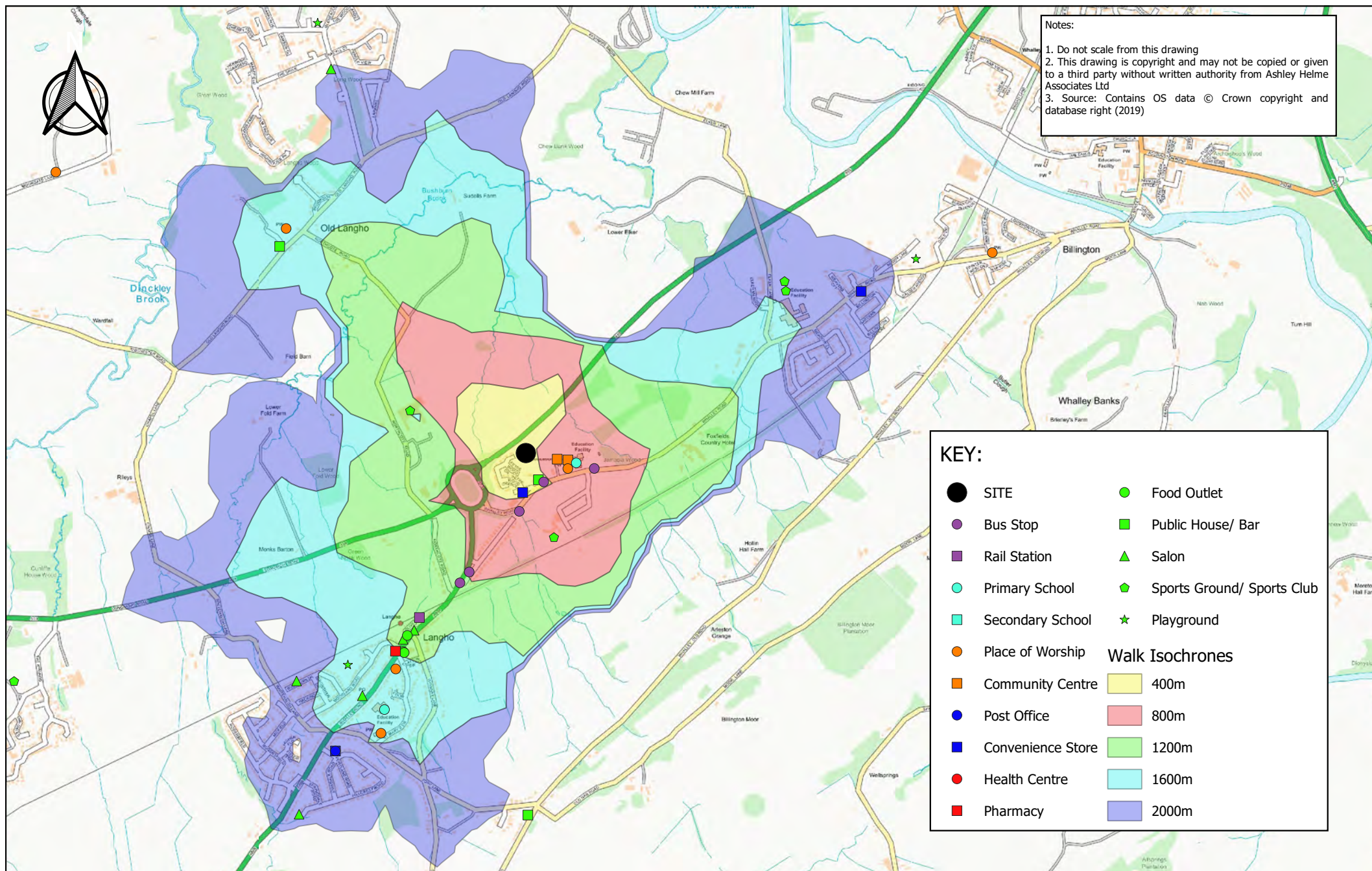


FIGURE 2 WALK ISOCHRONES & AMENITIES

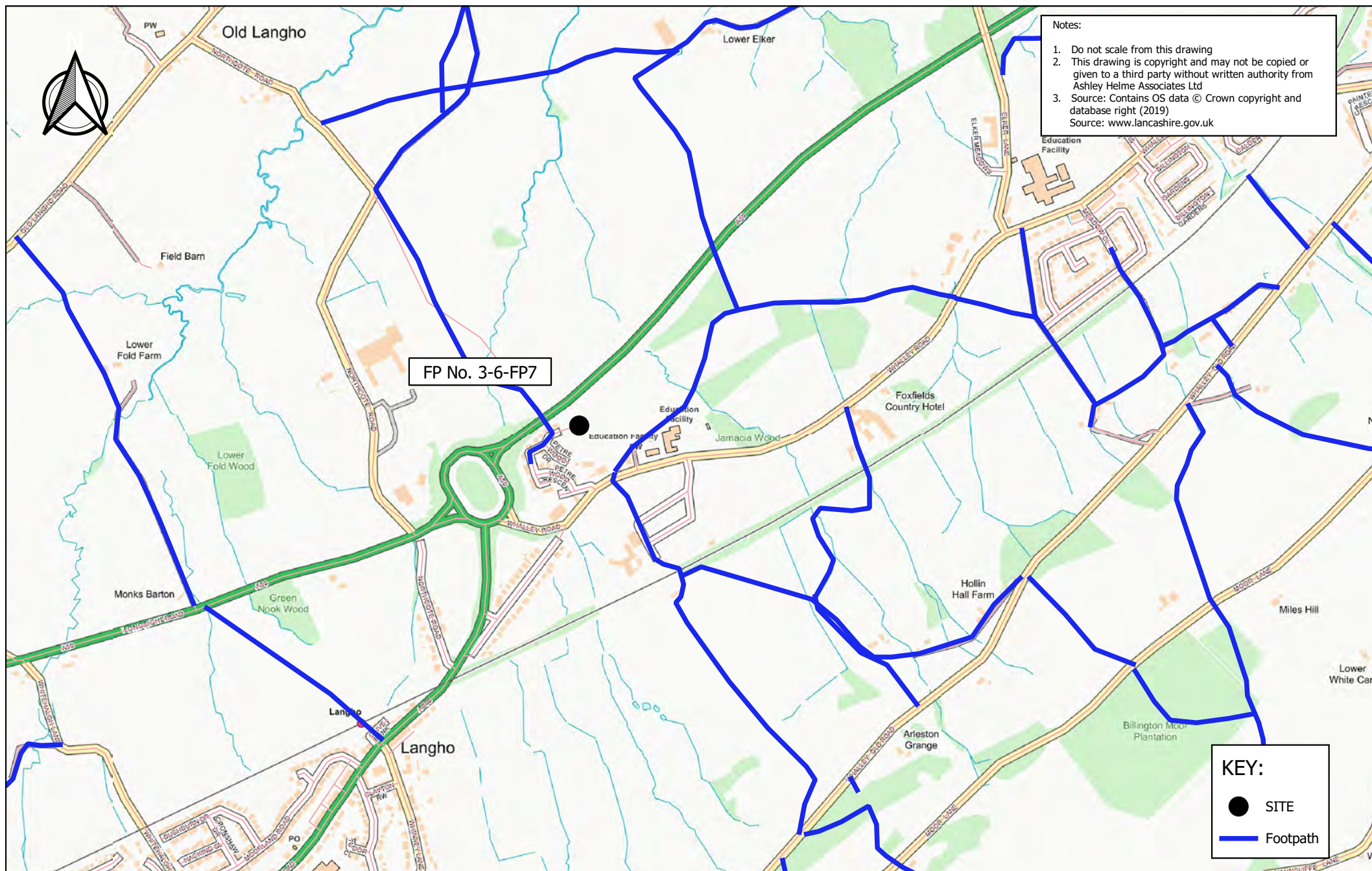


FIGURE 3 PUBLIC RIGHTS OF WAY (PROW)

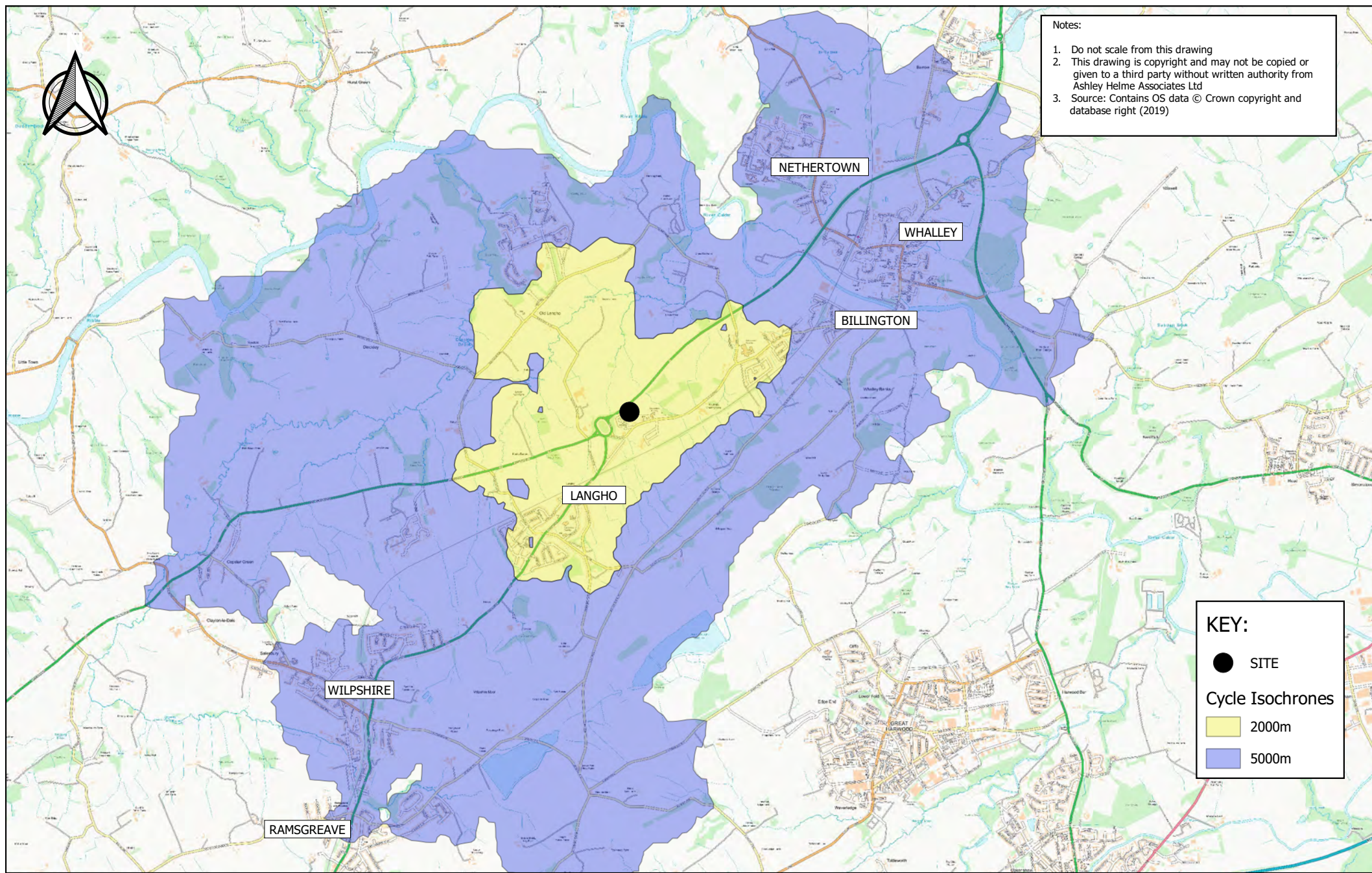


FIGURE 4 CYCLE ISOCHRONES

Tables

BUS No	Route	FREQUENCY			OPERATOR
		Mon- Sat		Sun	
		Day	Eve		
Existing services calling on Whalley Road					
22	Clitheroe-Blackburn-Shadsworth	30mins	-	60mins ⁽¹⁾	BB
280	Preston-Whalley-Clitheroe- Barnoldswick-Skipton	60mins ⁽²⁾	-	-	PB
School services calling on Whalley Road					
458	Brownhill-Ribblesdale High School	2 trips ⁽³⁾	-	-	MP
464	Brockhall Village-Ribblesdale High School	2 trips ⁽³⁾	-	-	HC
522	Calderstone- St.Augustines RCHS	2 trips ⁽³⁾	-	-	LC
616	Blackburn-Ribblesdale High School	2 trips ⁽³⁾	-	-	LC
638	Wiswell-St Augustines RCHS	2 trips ⁽³⁾	-	-	PSN
859	Wilpshire-Clitheroe Royal Grammar School	2 trips ⁽³⁾	-	-	MP

Source: www.bbc.co.uk/transport

Key:

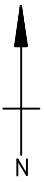
BB Blackburn Bus Company
PB Preston Bus
MP Moving People
HC Hodsons Coaches
LC Lakeland Coaches
PSN P&S Nelson

Notes:

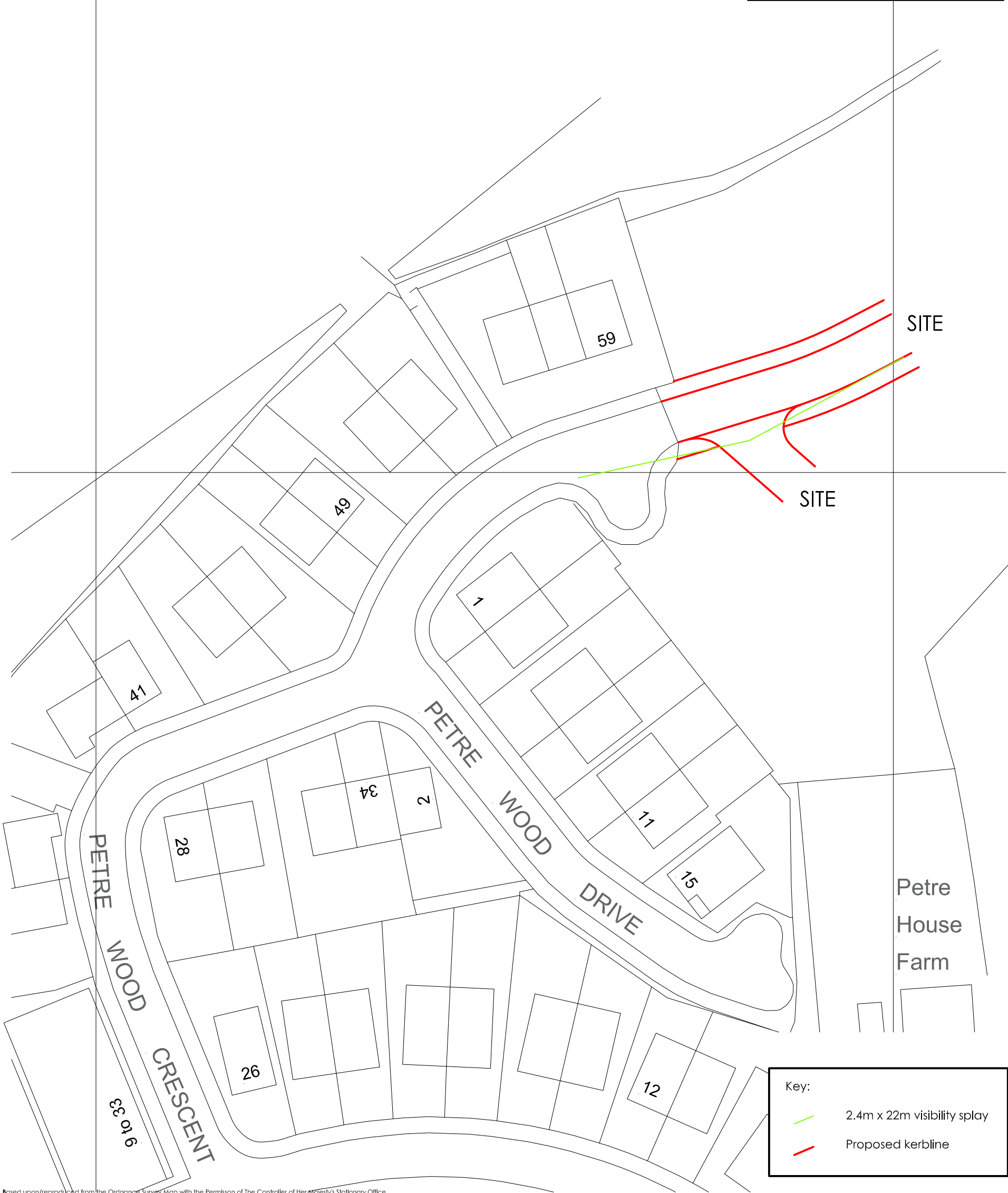
1. Hourly service between Blackburn and Clitheroe only,
2. Service operates 120 minute frequency between Clitheroe and Skipton,
3. 1 trip to school in AM and 1 return trip from school in PM on schooldays only,

TABLE 1 BUS SERVICES AND FREQUENCIES

Drawings



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Project	PETRE WOOD, LANGHO	Client	DARWEN ESTATES	Drawing No	1666/01	Rev	
Title	PROPOSED ACCESS ARRANGEMENTS			Date	FEB 2019	Scale	1:500@A3