

Transport and Highways Technical Note

Kenilworth Golf Club

June 2014

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Drawing W141308 SK01 Proposed site access from Dalehouse Lane

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Appendix A Draft LDP allocation plan

1 INTRODUCTION

- 1.1 Vectos are appointed by Lands Improvement Holdings (LIH) to provide an overview of transport and highways issues relating to the proposed redevelopment of Kenilworth Golf Club, Crewe Lane, Kenilworth, Warwickshire.
- 1.2 The site has been identified by Warwick District Council (WDC) in its Strategic Housing Land Availability Assessment (2014) as suitable for large scale residential redevelopment of between 750 and 1,000 units.
- 1.3 The location of the Golf Club relative to Kenilworth is shown in **Plan 1**.

Plan 1 – Site Location

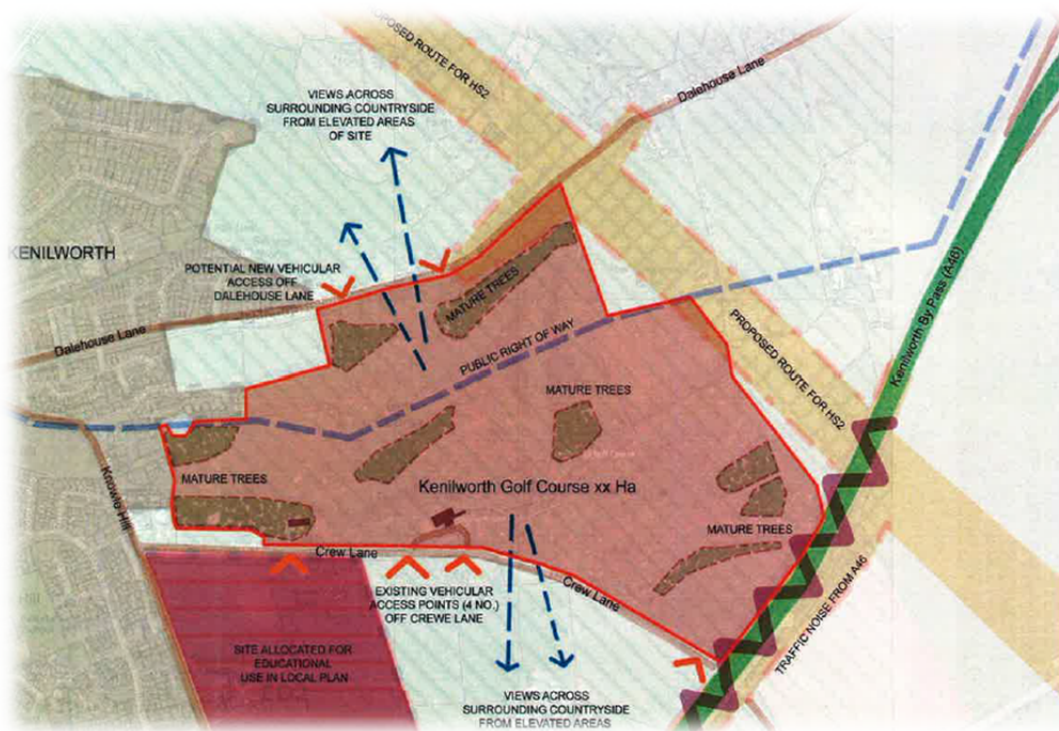


- 1.4 This Technical Note (TN) is intended to support representations to the WDC Local Plan Publication Draft consultation for the redevelopment of Kenilworth Golf Club and is set out as follows:
 - **Section 2** describes the site and the existing characteristics of the surrounding highway network and sustainable transport infrastructure;
 - **Section 3** provides an overview of the potential development;
 - **Section 4** provides a quantitative analysis of the proposals; and
 - **Section 5** summaries and concludes.

2 BACKGROUND

- 2.1 The proposed development site is Kenilworth Golf Club, Crewe Lane, Kenilworth Warwickshire located between Warwick and Coventry to the west of the A46.
- 2.2 Kenilworth Golf Club is a private members club with over 950 members.
- 2.3 The Golf Club is located on Crewe Lane, some 2km east of Kenilworth.
- 2.4 The Golf Club abuts Dalehouse Lane which links to the north onto Stoneleigh Road and the A46.
- 2.5 The extent of the site is outlined in red and shown in **Plan 2**.

Plan 2 – Site boundary



Access

- 2.6 Vehicular access to the Golf Club is taken from three access points on Crewe Lane;
 - The green keepers' sheds at the western end of Crewe Lane,
 - The main access / egress to the club house/car park; and

- A further access to the east for the practice area.

2.7 Crewe Lane is a typical rural road with no carriageway markings, footways or street lighting, with a carriageway width that varies between 4 and 4.5 m. The speed limit on Crewe Lane is 60mph (National speed limit) and the topography is generally flat.



2.8 At its western end, Crewe Lane forms a priority junction with Glasshouse Lane (S) and Knowle Hill (N). Hidcote Road forms a staggered priority junction to the west and provides access to the existing residential development on the eastern side of Kenilworth. At this point, the speed limit of Knowle Hill and Glasshouse Lane is 30mph.

2.9 To the east, Crewe Lane passes under the A46 and joins the B4115 via a priority junction.

Knowle Hill

2.10 Knowle Hill borders the site to the west and is a single carriageway with a lane in each direction. It provides a route from Dalehouse Lane to the local facilities at Leyes Lane and Park Hill Junior School. Knowle Hill can be accessed by pedestrians from Dalehouse Lane using a route through the residential estates at Lulworth Park and Angus Close. Knowle Hill is subject to a 30mph speed limit and provides direct access to residential dwellings as well as access to residential estates.

2.11 There is a pedestrian footpath on the eastern edge of the highway and street lighting is present. There is a sharp rise in gradient from Dalehouse Lane towards its junction with Crewe Lane, which is located on the crest of the road, whereby the gradient reduces southbound along Glasshouse Lane.

Dalehouse Lane

- 2.12 Dalehouse Lane borders the site to the north and is a single carriageway with a lane in each direction. It provides a route to the A46 to the northeast and into Kenilworth to the southwest. Dalehouse Lane is a semi-rural road with a speed limit of 50mph. The character of the road changes at the approach into Kenilworth and the speed limit is reduced to 30mph.
- 2.13 Along the more rural sections of Dalehouse Lane, access is provided to residential dwellings and farms. There are no pedestrian footpaths or street lighting located on this section of highway. On the approach into Kenilworth, and as the area becomes more populated, footpaths, bus stops and street lighting is provided. Access is provided to a number of residential estates from Dalehouse Lane. Near the junction with Lulworth Park, there is a signal controlled pedestrian crossing.

A46

- 2.14 The A46 borders the site to the east and would be an attractive route for commuters. In the vicinity of the site, the A46 is a dual three-lane carriageway and is subject to the national speed limit (70mph).
- 2.15 In a local context, to the north the A46 joins with the A444 at Stonebridge to provide a route into Coventry City Centre. The A46 also joins the M6 and M69 to the north east. To the south, the A46 joins the A429 to provide access into Warwick city centre. The A46 also provides access to the M40 to the south. From the site, the A46 can be accessed from Dalehouse Lane and Stoneleigh Road.

Connectivity and Accessibility

- 2.16 This Section considers the location of the site in terms of sustainable modes of travel.
- 2.1 Whilst the existing site is a Golf Club in a semi - rural setting, the existing accessibility and connectivity of the site to the adjacent community and amenities is considered to be reasonable.

Walking

- 2.2 The thrust of sustainability policy in transport terms is to support and promote an increasing propensity for people to use non single car occupancy modes, of which walking is one. The aim is to provide choice, and to encourage people to take advantage of that choice.
- 2.3 In 2009, 20% of all journeys made in Great Britain covered less than 1 mile, and more than half (56%) of car journeys covered less than 5 miles (Department for Transport 2010a, Transport Trends 2009).
- 2.4 While there will always be some short trips for which a car is the most convenient choice, such as carrying heavy shopping, many journeys can be undertaken on foot, and therefore walking can contribute significantly to a sustainable travel strategy.
- 2.5 There is an existing network of footways leading to local amenities in the local area.
- 2.6 The distance people are prepared to walk depends on their fitness and physical ability, journey purpose, settlement size and the walking condition. The DfT LTN 1/04 – Policy, Planning and Design for Walking and Cycling states that the mean average length for walking is 1km, although people will walk up to three times this distance to access services, facilities or their place of work / education.
- 2.7 The thrust of sustainability policy is that there will be an increasing propensity for people to use non single car occupancy modes, of which walking is one. People will choose their mode based on their journey purpose, and it is reasonable to conclude that a proportion of journeys undertaken to and from the site will be on foot.

Cycling

- 2.8 The distance people are prepared to cycle depends on their fitness and physical ability, journey purpose, settlement size and the cycling conditions. Whilst there is no specific guidance on the appropriate cycle distance, Sustrans suggests that up to 5 miles is an appropriate distance.
- 2.9 Planning Policy Guide 13 (PPG 13) (Transport), whilst now superseded by NPPF, suggested that a comfortable cycling distance for a relatively fit person is 5 km, and Sustrans suggest that up to 5 miles is an appropriate distance. The DfT LTN 1/04 – Policy, Planning and Design

for Walking and Cycling states that the mean average length for cycling is 4km, although people will cycle up to three times this distance to access services, facilities or their place of work / education.

- 2.10 National Cycle Network (NCN) Route 52 is located approximately 1km to the north west of the site. Route 52 is a 50 mile route which starts at Warwick and finishes just west of Loughborough where it joins NCN Route 6. It provides a cycle route to Kenilworth, Warwick and into Coventry city centre.
- 2.11 NCN Route 52 provides a route to NCN Route 523 to the west which is a route between Kenilworth and Burton Green. Route 523 is a traffic-free walking and cycling route and provides an essential link between local villages, the University of Warwick, Tile Hill railway station and Kenilworth town centre.
- 2.12 There is a shared footway/cycleway along the A429 Kenilworth Road which is located to the north of the site. This is known as the Coventry to Crackley path and provides a traffic free route into Coventry city centre.

Local Amenities

- 2.13 There are a number of facilities located near the site which are within a reasonable walking and cycling distance. These are shown in **Table 2.1** along with the approximate walking and cycling times.

Table 2.1 – Local Facilities

Facility	Distance (m)	Approximate Walking Time (5km/hr)	Approximate Cycling Time (15km/hr)
Park Hill Junior School	1800	22	7
Kenilworth School	1900	23	8
Crackley Hall School	1500	18	6
Common Lane Industrial Estate	1100	13	4
Common Lane local centre	1100	13	4
Local Centre on Leyes Lane	1600	19	6
Abbey Medical Centre	2700	32	11
Kenilworth Dental Practice	2800	34	11
Leyes Lane Pharmacy	1700	20	7
Tiltyard Pub	1800	22	7

Public Transport Accessibility

Bus

- 2.14 The 'Kenilworth, Adj Knowle Hill' bus stop is the closest bus stop to the site. It is located approximately 750m from the site and takes the form of a sign on a lamp post equipped with timetable information. The nearest bus stops are highlighted in Plan 3 below.

Plan 3 location of bus stops



- 2.15 The bus routes that serve this bus stop are shown in **Plan 4 and Table 2.2**

Plan 4 – Bus Services in Kenilworth

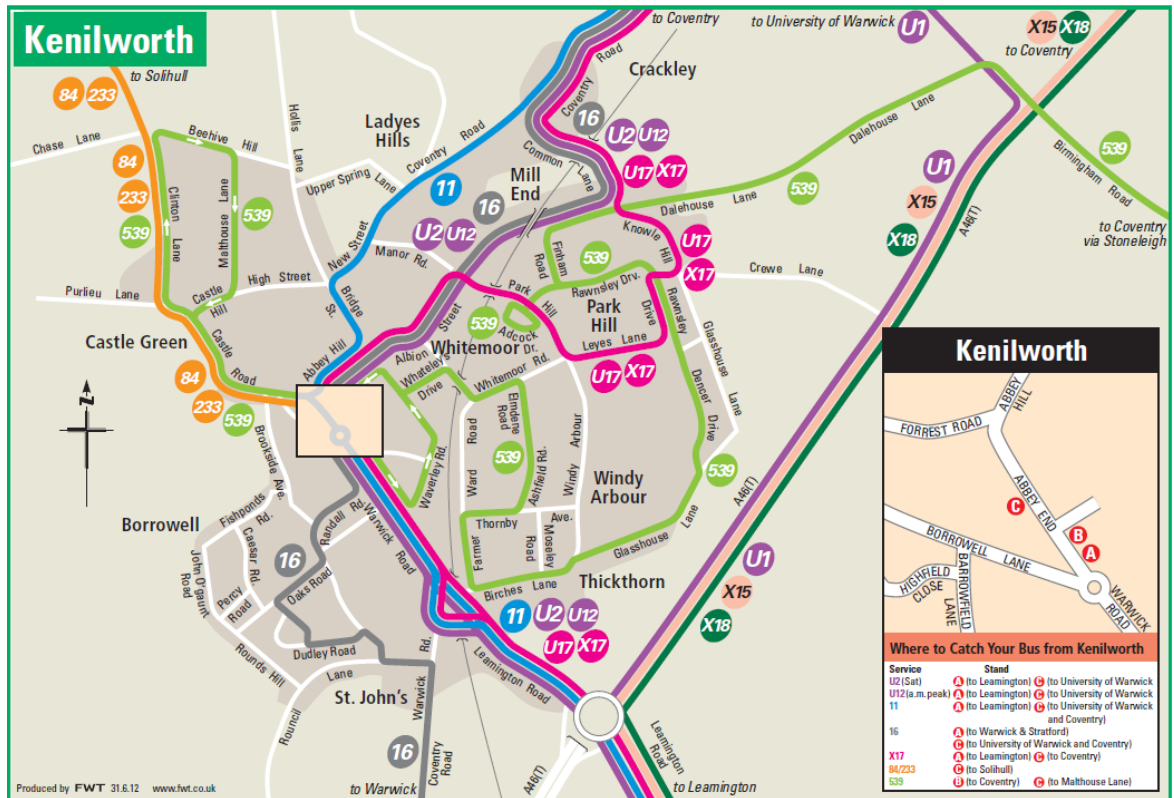


Table 2.2 – Local Bus Services

Operator	Number	Route	First Bus	Last Bus	Daytime Frequency (mins)		
					Mon-Fri	Saturday	Sunday
Stagecoach in Warwickshire	86	Rugby – Kenilworth via Coventry	07:56	18:52	30 (no services between 09:58 and 15:38)	30 (no services between 09:58 and 16:37)	-
Johnsons	539	Coventry – Kenilworth via Baginton	08:55	17:32	5 services a day	5 services a day	-
Stagecoach in Warwickshire	X16	Willenhall – Stratford via Coventry	07:31	19:07	60	60	-
Stagecoach in Warwickshire	X17	Coventry – Warwick via Leamington	06:28	21:46	15	15	-
Stagecoach in Warwickshire	X19	Coventry – Kenilworth via Jaguar Land Rover Works	07:07	-	1 a day	-	-
Stagecoach in Warwickshire	U17	Coventry – Leamington	09:27	19:57	-	-	30
Stagecoach in Warwickshire	U2	University of Warwick – Leamington	08:37	18:17	-	30	-

2.16 As shown in **Table 2.2**, a number of bus services serve the site providing routes to Coventry, Warwick, Leamington, Stratford and Rugby. There are approximately 5 services an hour during the weekday, 7 services an hour on Saturday and 2 services an hour on Sunday.

Rail

2.17 The nearest Rail Station to the site is Canley Rail Station which is located approximately 7 km to the north east of the site. The rail station is equipped with 94 car parking spaces and 10 sheltered and secure cycle parking spaces.

2.18 Tile Hill rail station which is located approximately 8 km to the north west of the site. NCN Route 523 provides a mostly traffic free cycle route from the site to Tile Hill station. The rail station is equipped with 129 car parking spaces which are available 24/7 and are free of charge. There are 24 sheltered and secure cycle parking spaces also provided at the station.

2.19 Rail services to London Euston, Birmingham New Street and Coventry are provided from both stations.

2.20 The Local Plan also outlines the possibility of re-opening Kenilworth Train Station.

Existing Travel Behaviour

2.21 Travel to work statistics have been obtained from the 2011 Census data for the ward of Park Hill to demonstrate the existing modal split of residents from this ward for their journey to work. The mode split is shown in **Table 2.3**.

Table 2.3 – Journey to Work Mode Split (Census 2011)

Mode	Park Hill (Ward)	Warwick (Non-Metropolitan District)	West Midlands (Region)
Work Mainly at or From Home	8%	7%	5%
Underground, Metro, Light Rail, Tram	0%	0%	0%
Train	3%	3%	3%
Bus, Minibus or Coach	3%	4%	8%
Taxi	0%	0%	1%
Motorcycle, Scooter or Moped	1%	1%	1%
Driving a Car or Van	73%	65%	65%
Passenger in a Car or Van	4%	5%	6%
Bicycle	3%	3%	2%

On Foot	6%	12%	10%
Other Method of Travel to Work	0%	1%	1%
Total	100%	100%	100%

2.22 **Table 2.3** demonstrates that the ward of Park Hill has a greater percentage of car drivers travelling to work when compared with the district and region. This is presumably due to the rural character of the area.

2.23 The percentage of residents within this ward travelling to work by train and on bicycle remains consistent with the district and region however, Park Hill has fewer residents travelling by bus and walking to work.

3 OVERVIEW OF DEVELOPMENT

- 3.1 The proposals comprise relocating Kenilworth Golf Club and redeveloping the existing Golf Club with a residential led, mixed use development.
- 3.2 Whilst the exact mix of development is uncertain at this stage, the site has been identified by Warwick District Council in its latest Strategic Housing Land Availability Assessment (2014) as suitable for 750-1,000 residential units.
- 3.3 The accompanying masterplan document proposed by FPR architects identifies that the site could comfortably accommodate 700-1000 residential units.
- 3.4 This site will form a natural extension to residential development on the eastern edge of Kenilworth.
- 3.5 The thrust of development on this site is residential, although equally there is scope to provide a mix of community facilities on site, subject to local need. These facilities could include, for example, a small convenience shop, café or sports facilities.

Complimentary Proposals

- 3.6 A copy of the Local Plan Publication Draft (May 2014) policies map from Warwick District Council is shown at **Appendix A**. This shows a substantial major educational allocation to the south of Crewe Lane.
- 3.7 The proposal is to provide a new secondary school, Sixth form college and primary school on this site which will see the relocation of both the existing Kenilworth School (on Leyes Lane) and Kenilworth School Castle VI Form Centre (on Rouncil Lane to the south west of the town). The existing school sites will then be redeveloped for housing and are identified in yellow on the same plan.
- 3.8 Clearly a large scale residential led scheme on the Golf Club site opposite would have benefits in terms of integration, linkages and connectivity in relation to the proposed major educational allocation on land to the south of Crewe Lane.
- 3.9 This is particularly relevant that car borne school journeys during the AM peak hour can account for up to 30% of traffic on the road network. The majority of these trips tend to be

related to primary schools and hence a primary school immediately adjacent to this site would be a significant benefit in terms of reducing vehicular traffic.

Masterplan

- 3.10 An indicative masterplan layout is shown in Plan 4 abstracted from the architect’s supporting information.

Plan 4 – Initial Masterplan Concept



- 3.11 From a movement perspective, this shows vehicular access to the site from both the north (Dalehouse Lane) and the south (Crewe Lane).
- 3.12 The movement concept is based on the primary access to the site from the north and a secondary access from Crewe Lane.
- 3.13 The character of the Dalehouse Lane is shown in the following image.



- 3.14 There is the potential to create a new, ghost-island priority junction into the site from the northern boundary, on Dalehouse Lane. This can be achieved within the site ownership and the adopted highway boundary and would be delivered together with a traffic management scheme on Dalehouse Lane, extending the 30mph entry speed limit to the east beyond the proposed site access.
- 3.15 An indicative junction layout is shown in drawing **W141308 SK01**. There should also be scope to complete the missing section of footway on the southern side of Dalehouse Lane between the site entrance westwards towards Kenilworth.
- 3.16 There are numerous options to create vehicular access points into the site from Crewe Lane including using the existing access points into the Golf Club and the green keepers' sheds. These options can be prepared at a later stage. For example, the main vehicular entrance to the site could be in the same location as the existing car park access whereas a pedestrian connection would be closer to the junction with Knowle Hill, in the same location as the green keepers' sheds access.
- 3.17 The design of Crewe Lane itself in terms of carriageway width and location of footways and crossings would be a matter for preliminary design during any future planning application. Given the land ownership and adopted highway boundary there are unlikely to be any constraints to achieving this.
- 3.18 Changing the character of Crewe Lane will also mean introducing a new 30mph speed limit.

- 3.19 In addition, it is acknowledged that the junction between Crewe Lane / Knowle Hill would benefit from a traffic management / highway safety improvement given its positioning on the crest of the hill. There are various options available which would be explored in consultation with the local highway authority at the appropriate stage in any future planning application.

Accessibility, Connectivity and Public transport

- 3.20 The development of a detailed masterplan for this site would be predicated on ensuring that the site is accessible and connected to adjacent areas and local amenities by all modes of transport, particularly walking, cycling and public transport.
- 3.21 The internal design of the site itself and connections to the community facilities (e.g local shops / primary school) will be equally important in facilitating internal trips / movements and setting the correct design code in terms of the layout and character of internal roads and links. For example, the concept should be based on the movement hierarchy and typical street dimensions as set out within Manual for Streets (MfS) and MfS2.
- 3.22 It is anticipated that a development of this scale will be able to provide the necessary funding to pump prime a new or diverted bus service into the site, thus providing a step change in accessibility by public transport and providing transport choice to future and existing nearby residents.
- 3.23 Continuous footway connections will be provided to tie into the existing local network with pedestrian crossings positioned at appropriate locations and desire lines.
- 3.24 The site will become socially inclusive providing real travel choice for future and nearby existing residents.

4 QUANTITATIVE ASSESSMENT OF POTENTIAL DEVELOPMENT

- 4.1 Whilst the proposed quantum / mix of development and masterplan is by no means fixed at this stage, it is useful to provide an indication of the effect of the development of this magnitude.
- 4.2 In order to understand this effect TRICS has been interrogated to provide trip rates to forecast the quantum of people movements from a site comprising c 750 dwellings.
- 4.3 TRICS is an industry - recognised software based tool designed to forecast trip generation and contains over 6,300 transport surveys at a wide range of development sites across all regions of the UK and Ireland. A filtering system allows sites to be selected which fit within required parameters and can therefore be considered representative of a development site.

Trip Generation

- 4.4 To obtain a robust total people trip rate per dwelling for the development, survey sites were selected within the following parameters:
- Survey Type: Multi-modal;
 - Location: England (except London), Wales and Scotland. Sites in Ireland were excluded.
 - Area: Suburban area or edge of town;
 - Size: Over 100 dwellings; and
 - Date: Within the last 5 years.
- 4.5 A total of 11 sites fell within these parameters and in line with TRICS guidance, an average trip rate has been derived. The average trip rates for all modes is summarised in **Table 4.1**

Table 4.1 – Average Trip Rates (per dwelling)

Mode	AM (08:00-09:00)			PM (17:00-18:00)		
	Arrivals	Departures	Totals	Arrivals	Departures	Totals
Vehicles	0.168	0.447	0.615	0.41	0.247	0.657
Cyclists	0.006	0.019	0.025	0.013	0.014	0.027
Car Passenger	0.045	0.228	0.273	0.129	0.093	0.222
Pedestrians	0.054	0.172	0.226	0.061	0.057	0.118
Bus/Tram/Coach Passengers	0.004	0.019	0.023	0.017	0.006	0.023
Train Passengers	0	0.001	0.001	0.002	0	0.002
Total People	0.277	0.886	1.163	0.632	0.416	1.048

- 4.6 Based on the proposed development of approximately 750 dwellings, the corresponding trip generation for the site is shown in **Table 4.2**.

Table 4.2 – Trip Generation (750 dwellings) – all trips

Mode	AM (08:00-09:00)			PM (17:00-18:00)		
	Arrivals	Departures	Totals	Arrivals	Departures	Totals
Vehicles	126	335	461	308	185	493
Cyclists	5	14	19	10	11	20
Car Passenger	34	171	205	97	70	167
Pedestrians	41	129	170	46	43	89
Bus/Tram/Coach Passengers	3	14	17	13	5	17
Train Passengers	0	1	1	2	0	2
Coach Passengers	1	3	4	0	0	0
Total People	208	665	872	474	312	786

- 4.7 **Table 4.2** demonstrates that the proposed development will generate approximately 872 total person trips in the AM peak and 786 total people trips in the PM peak period.
- 4.8 When a formal assessment of traffic forecast and people trip demand is undertaken to accompany a future planning application, the existing or brownfield traffic generation from the Golf Club can be netted off within the calculations.
- 4.9 The effect of the development can then be assessed against existing and proposed infrastructure. Given the character of the local / strategic road network it is considered that development of this magnitude should be able to be accommodated within the existing highway network.

5 SUMMARY AND CONCLUSION

Summary

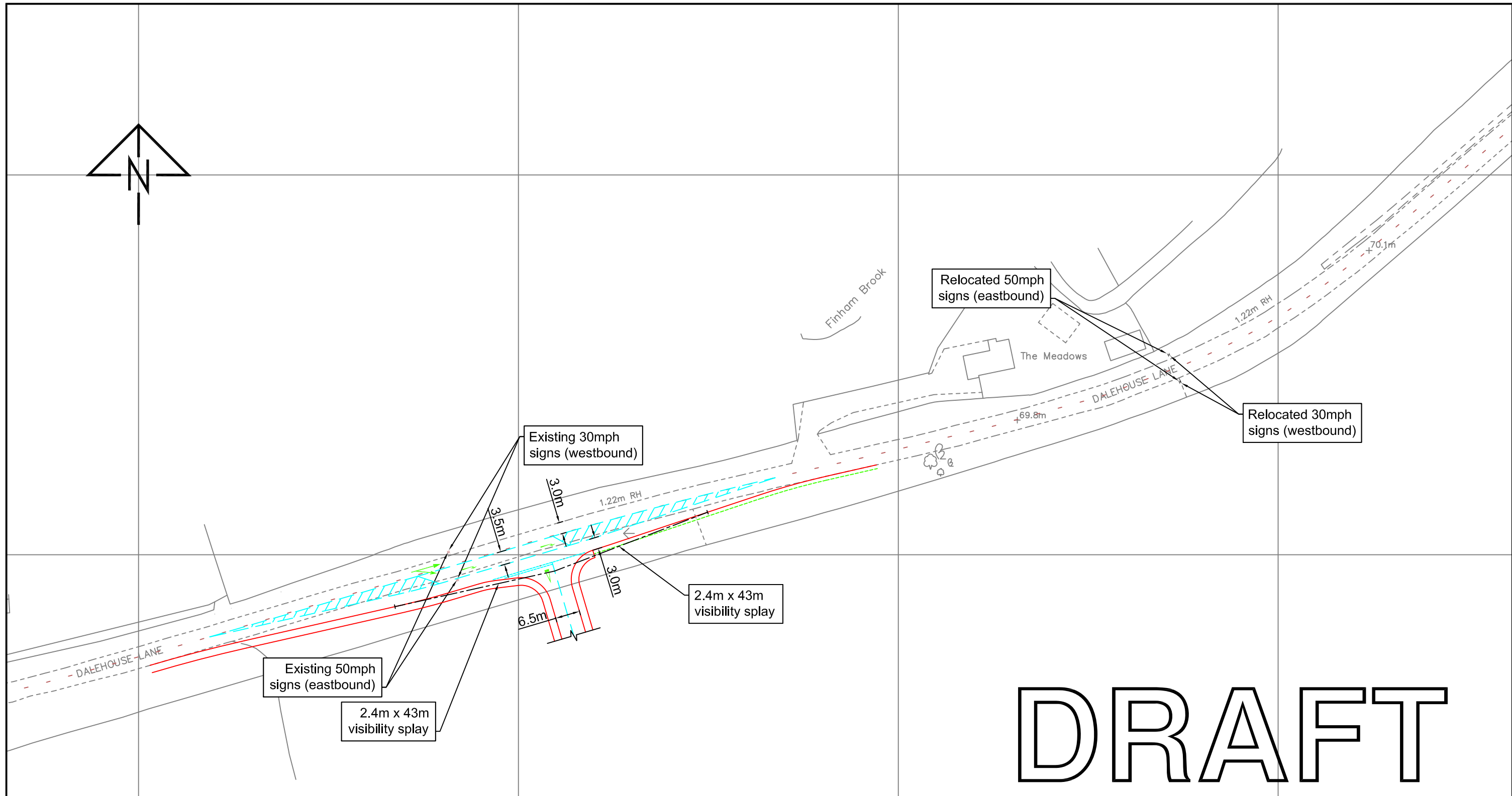
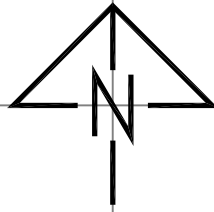
- 5.1 Vectos is appointed by Lands Improvement Holdings (LIH) to provide an overview of transport and highway issues relating the proposed redevelopment of Kenilworth Golf Club, Warwickshire.
- 5.2 The site has been identified by Warwick District Council (WDC) in its Strategic Housing Land Availability Assessment (2014) as suitable for large-scale residential development of between 750-1,000 units.
- 5.3 The intention of this report is to support representations to the WDC Local Plan Publication Draft consultation by considering the existing characteristics of the area by promoting the potential of this site to create a socially inclusive new community.
- 5.4 The development of this site for between 750-1000 new homes and community facilities will provide a natural expansion of the town on its eastern boundary.

Conclusion

- 5.5 Whilst the site is within a semi-rural location some 2-3 km to the east of Kenilworth, accessibility and connectivity by sustainable modes of transport are considered viable. In addition, the A46 to the east of the site provides attractive road connections to Coventry, Warwick and the wider region with links to the M40.
- 5.6 A residential led, mixed use development of this scale and critical mass has the ability to create a step change in terms of accessibility and connectivity for future and existing residents by creating new footway / cycleway and public transport linkages.
- 5.7 In addition, it is likely, based on initial allocations with the emerging Local Plan, that the Council are seeking to provide a new secondary, sixth form school and primary school on the land immediately south of Crewe Lane. This would further increase the accessibility and connectivity of the Golf Club site.

- 5.8 On this basis, the site should be supported from a highways and transport perspective as it encourages sustainable development / travel choice and is in keeping with the policies contained within the National Planning Policy Framework.

DRAWINGS



DRAFT

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REV.	DETAILS	DRAWN	CHECKED	DATE

Notes:

- This is not a construction drawing and is intended for illustrative purposes only.
- White lining is indicative only.

Kenilworth Golf Club, Warwickshire

**Proposed Access Arrangement
off Dalehouse Lane**

DRAWN: HE CHECKED: MT DATE: 19.6.14 SCALES: 1:1000 at A3

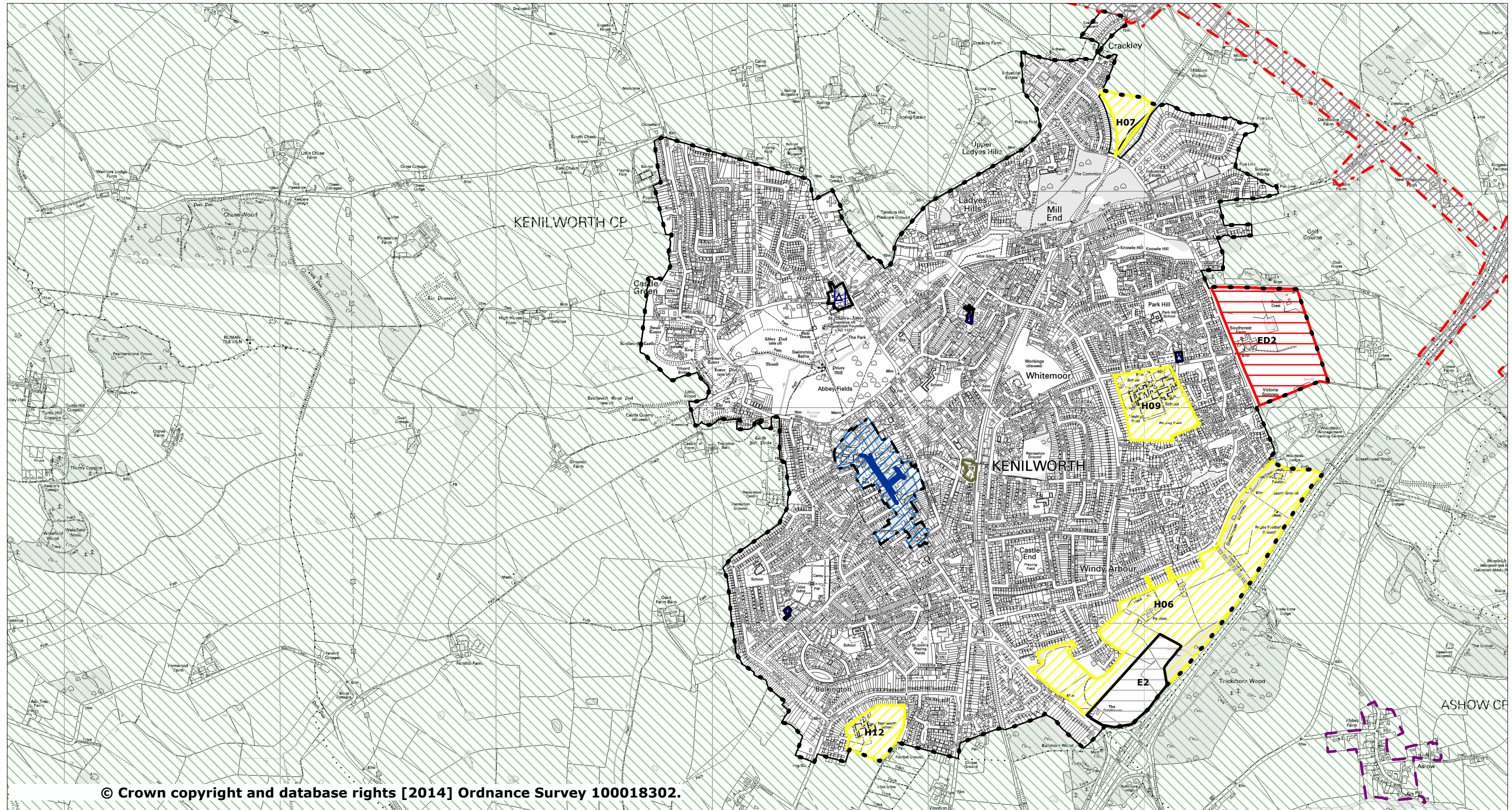
Lands Improvement Holdings

10th Floor, Helmont House, Churchill Way, Cardiff CF10 2HE
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DRAWING NUMBER: **W141308/SK/01** REVISION: .

APPENDICES

APPENDIX A



WDLP - Green Belt (DS19)	WDLP - Housing Allocations (DS11)	WDLP - Employment Allocations (DS9)	WDLP - Major Employment Commitments (EC3)	WDLP - Major Education Allocations (DS12)
WDLP - Infill Village Boundaries	WDLP - Retail Area (TC2)	WDLP - Primary Retail Frontages (TC6)	WDLP - Local Shopping Centres (TC17)	WDLP - Kenilworth Railway Station (TR5)
WDLP - Town Centre Boundary (TC1)	WDLP - Urban Area Boundary			
Areas of Surface Interest				
Limits of Safeguarding Direction				

5. Kenilworth