



U741 – Marriott’s Park, Taverham, Broadland Norfolk
Technical Note 002 – Regulation 18 Highways and Transportation Representation Note
For M Scott Properties Ltd
March 2020

Introduction

1.1 Highways and Transportation representations were submitted for Site GNLP0337 (Land between Fir Covert Road and Reepham Road) as part of the Stage A Regulation 18 consultation in May 2019. Stage C Consultation of Regulation 18 is currently ongoing (between 29th January and the 16th March 2020), where Draft Policy wording has been prepared. In respect to Highways and Transportation Policy GNLP0337 States:

1 - Detailed arrangement for access (vehicular and pedestrian) such as from Reepham Road and Fir Covert Road, pedestrian / cycle links at Felsham Way, Ganners Hill, Breck Farm Lane, and Kingswood Avenue;

2 - Off-site improvements to the highway network which may include provision of new roundabout on Reepham Road, and Fir Covert Road including proposed link;

3- Safeguarding and landscape enhancement of Marriott’s Way;

4 - Provision of significant landscape buffer adjacent to A1270 and adequate noise mitigation measures to protect residential amenity;

1.2 This Technical Note has been prepared to review and update the representations previously submitted based on the ongoing considerations and discussions with Norfolk County Council (as the Local Highway Authority) and Broadland District Council (as the Local Planning Authority).

1.3 The representations previously submitted in May 2019 are contained at Attachment 1 for completeness.

Vehicular / Pedestrian and Cycle Access (points 1 and 2)

1.4 As discussed in the previous representations document vehicular access will be via new junctions from Fir Covert Road (to the west of the site) and Reepham Road (to the east of the site). These accesses are proposed to be connected via a central spine road through the site to increase permeability and distribution of trips onto the surrounding network and Broadland Northway. This is consistent with the draft policies expectations however these are not considered to be offsite works.

1.5 At this stage the proposed junctions have been considered as roundabout junctions as shown on Drawings U741_PL_SK213 Revision A and U741_PL012 Revision A. The draft wording states that these access points may be roundabouts which is considered appropriate as alternative priority access layouts may be explored. These layouts have been submitted to NCC for initial



comments and following a design team meeting NCC provided a number of recommendations. These recommendations have been included into the layouts and a Stage 1 Road Safety Audit has been completed.

- 1.6 A Stage 1 Road Safety audit has been completed by an independent Road Safety Auditor. The recommendations in the RSA have been incorporated into the illustrative site access layouts.
- 1.7 The central spine road has been reviewed in 3D to consider the route it may take across the site in order to connect the two access points. It is proposed that the spine road will be formed of a 6.5m wide carriageway with 2 x 3m verges and 2 x 3m shared footway / cycleway along its length. The spine road would cross Marriotts Way which has been identified in the Policy. It is considered that as far as a reasonably practicable priority should remain with Marriotts Way for pedestrians and cyclists. An initial review has been carried out where a scheme to provide a raised table and controlled crossing (parallel crossing for pedestrians and cyclists) has been considered. This is illustrated on drawing U741_PL_SK216.
- 1.8 Masterplanning of the site has been noted as a key consideration. The internal accessibility of the site from the spine road has been discussed with NCC with respect to junction types, junction spacing and visibility requirements. Based on these discussions it is considered that the majority of the dwellings would be accessed from the residential access roads looping through the site and connecting to the spine road as well as private roads from the spine road serving small numbers of dwellings. This treatment is considered to reflect the existing character of Kingswood Avenue.
- 1.9 The adjacent committed development site at Taverham Garden Centre is obligated to upgrade the existing footway / Cycleway provision on Fir Covert Road as part of their works. Where required the site (GNLP0337) would upgrade the section between that provided by the Garden Centre and the Fir Covert Road site access to provide a continuous connection between the site and the existing facilities. This will complement other pedestrian and cycle connections.
- 1.10 It is not proposed to provide any vehicular connections between the proposed development and the existing dwellings to the south or south-east of the site. Allotments are proposed on the site off of Breck Farm Lane. Vehicle access to the allotments from Breck Farm Lane is to be explored.
- 1.11 Where practicable new pedestrian and cycle connections will be provided to increase connectivity between the existing settlement areas. These will include a pedestrian and cycle connection along the existing Breck Farm Lane which would connect to the existing 'quiet route' along Breck Farm Lane (to the south of Kingswood Avenue).



Safeguarding of Marriott's Way (point 3)

- 1.12 As discussed above the spine road is proposed to cross Marriotts Way. Where the spine road crosses Marriotts Way a scheme is being considered to provide a controlled Parallel Crossing to maintain pedestrian and cycle priority this will complement the existing facilities along the route. As part of these works it is expected that associated landscaping would be provided. The provision of landscaping will be considered by a landscape architect.

Landscape Buffer and Noise Mitigation

- 1.13 The applicant has commissioned an initial noise assessment between Reepham Road and Fir Cover Road, which considers the effects of the Broadland Northway and the likely noise mitigation which would be required.
- 1.14 Currently there is a bund running along the site boundary, between the Broadland Northway and an existing shared pedestrian / cycleway. The bund itself is landscaped. The initial assessment considers that the existing bund would need to be enhanced to mitigate for the requirements of the proposed development. The applicants have discussed the opportunity to enhance the existing bund with NCC who have provided comments relating to protecting the landscaping on the bund.
- 1.15 It is therefore considered that the existing bund can be suitably enhanced (made larger) to provide suitable noise mitigation for the development. Affected landscaping will be replaced and supplemented where necessary.
- 1.16 An illustrative layout for the bund is shown on drawing U741_PL_SK212. This will be updated as necessary as the scheme progresses.

Offsite Highways Infrastructure

- 1.17 Below the draft policy wording are notes relating to the proposed development site, which reflects the wording in the HELAA and Taverham and Ringland Assessment Booklet where it states:

This is a strategic-scale site well related to the existing edge of Thorpe Marriott with no major constraints to make the site unsuitable for development. The site will need to be master-planned to provide community and recreation facilities including a school and medical care facility. Highway improvements will be needed including provision of roundabout access at Fir Covert Road, priority access at Reepham Road and traffic signals at the A1067 Fakenham Road / Fir Covert Road.

- 1.18 Although not identified in the draft policy wording it should be noted that the A1067 Fakenham Road / Fir Covert Road junction is to be signalised as part of the committed retail development at Taverham Garden Centre.



- 1.19 The impacts resulting from the proposed development will be assessed as part of a Transport Assessment for the development proposal. Where required improvements will be proposed to mitigate the residual effects of the proposals.
- 1.20 Paragraph 123 of the Draft Greater Norwich Local Plan (DGNLP) states that improvements will be made to the existing infrastructure which include better rail services, and improvements to the A47, A140 and the provision of the Norwich Western Link (NWL).
- 1.21 Paragraph 211 states that *'Norfolk County Council has identified the Norwich Western Link as one of its infrastructure priorities. Work continues to develop the scheme in readiness to submit a business case for a large local major scheme to the Department for Transport (DfT). As it develops, the GNLN will reflect progress towards delivery of the scheme and when a route is formally adopted it will need to be shown in the GNLN.'*
- 1.22 It should be noted that the preferred sites including GNLN0337 have been considered through the plan making process. As part of these considerations the site has been considered to be suitable for development prior to the NWL being delivered. The Broadland Northway (formally referred to as the Norwich Distributor Road (NDR) has been completed which has reduced congestion on the surrounding highway network.
- 1.23 Traffic Surveys were carried out in February 2019 on Fir Covert Road and Fakenham Road including the junction with Beech Avenue. The post NDR surveys showed that there had been a reduction of 12.1% in vehicle movements at the Fakenham Road / Fir Covert Road / Beech Avenue crossroads when compared to the 2011 turning counts in the AM peak. When growth is factored the reduction equates to around -21%.

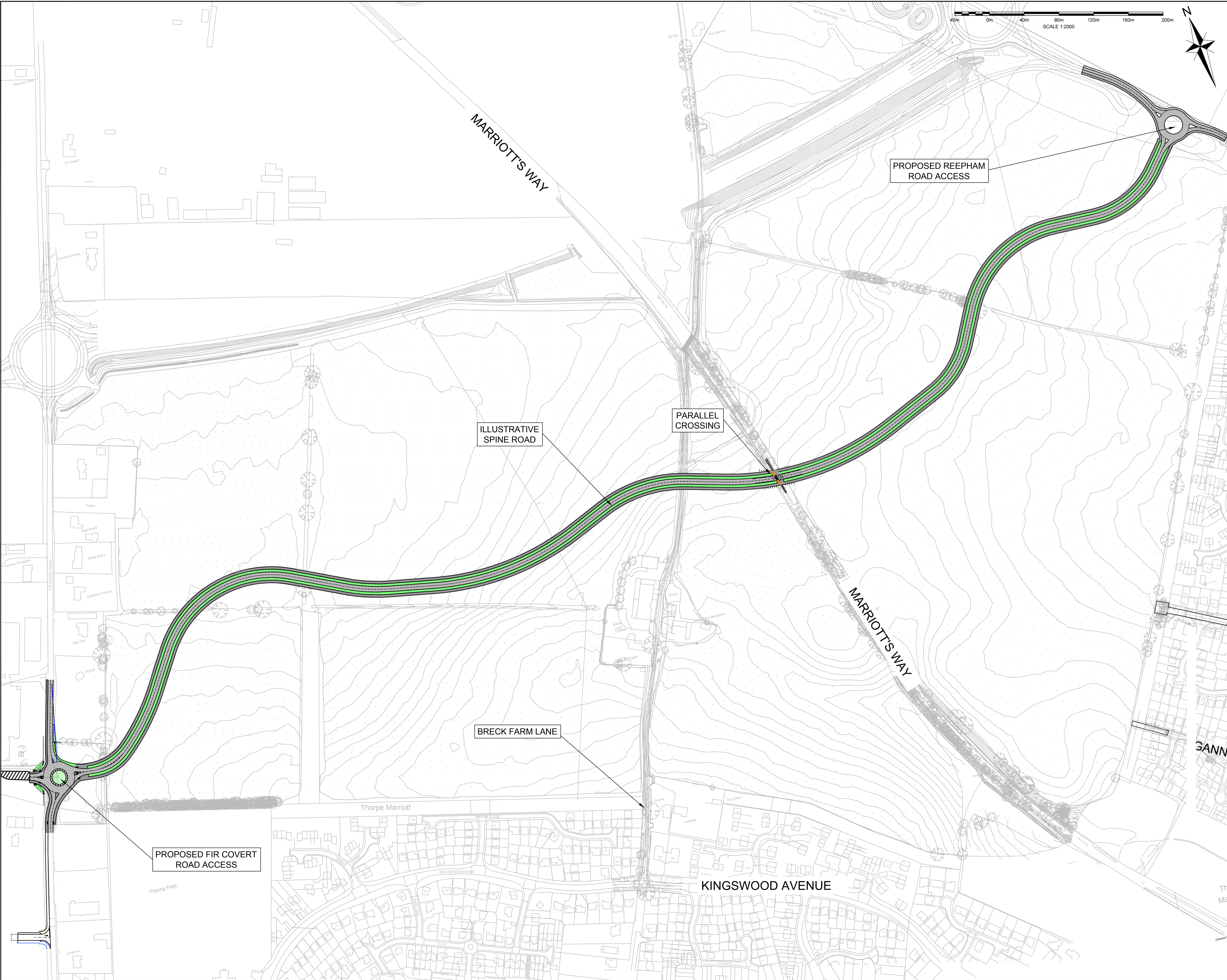


Summary

- 1.24 Access to the site has been considered via new junctions on to Fir Covert Road and Reepham Road, which will be connected via an internal spine road capable of accommodating the proposed development. Currently these accesses have been considered as roundabout junctions however the junction type should remain flexible. The current wording in the policy allows for alternatives to be considered as part of any application.
- 1.25 For clarification the site accesses are not considered as off-site works.
- 1.26 Walking and cycling routes / connections within the site and with the existing settlement areas will be provided where practicable to encourage sustainable travel. An illustrative priority crossing has been considered where the proposed spine road crosses Marriotts Way. This seeks to complement the crossing treatment of Marriotts Way within the existing settlement area.
- 1.27 The signalisation of the Fakenham Road / Fir Covert Road / Beech Avenue crossroads has been included in the footnotes to the draft policy. These works are committed as part of the Taverham Garden Centre retail development.
- 1.28 No other offsite highway works have been linked to this development. The Norwich Western Link (NWL) located to the west of the development has been identified as a preferred scheme, however it is considered the Norfolk County Council will carry out further assessment before finalising a scheme. Therefore the proposed development site is not reliant on its delivery.



Drawings



KEY	

NOTES

DRAFT

REV	DESCRIPTION	DE	DR	CH	DATE
DESIGNED BY	DR	DRAWN BY	DS	CHECKED BY	DS
SCALE @ A1 SIZE	1:250	DATE	29/04/19		

PROJECT TITLE
LAND TO THE EAST OF FIR COVERT ROAD

DRAWING TITLE
BRECK FARM OVERVIEW PLAN

CLIENT
SCOTT PROPERTIES

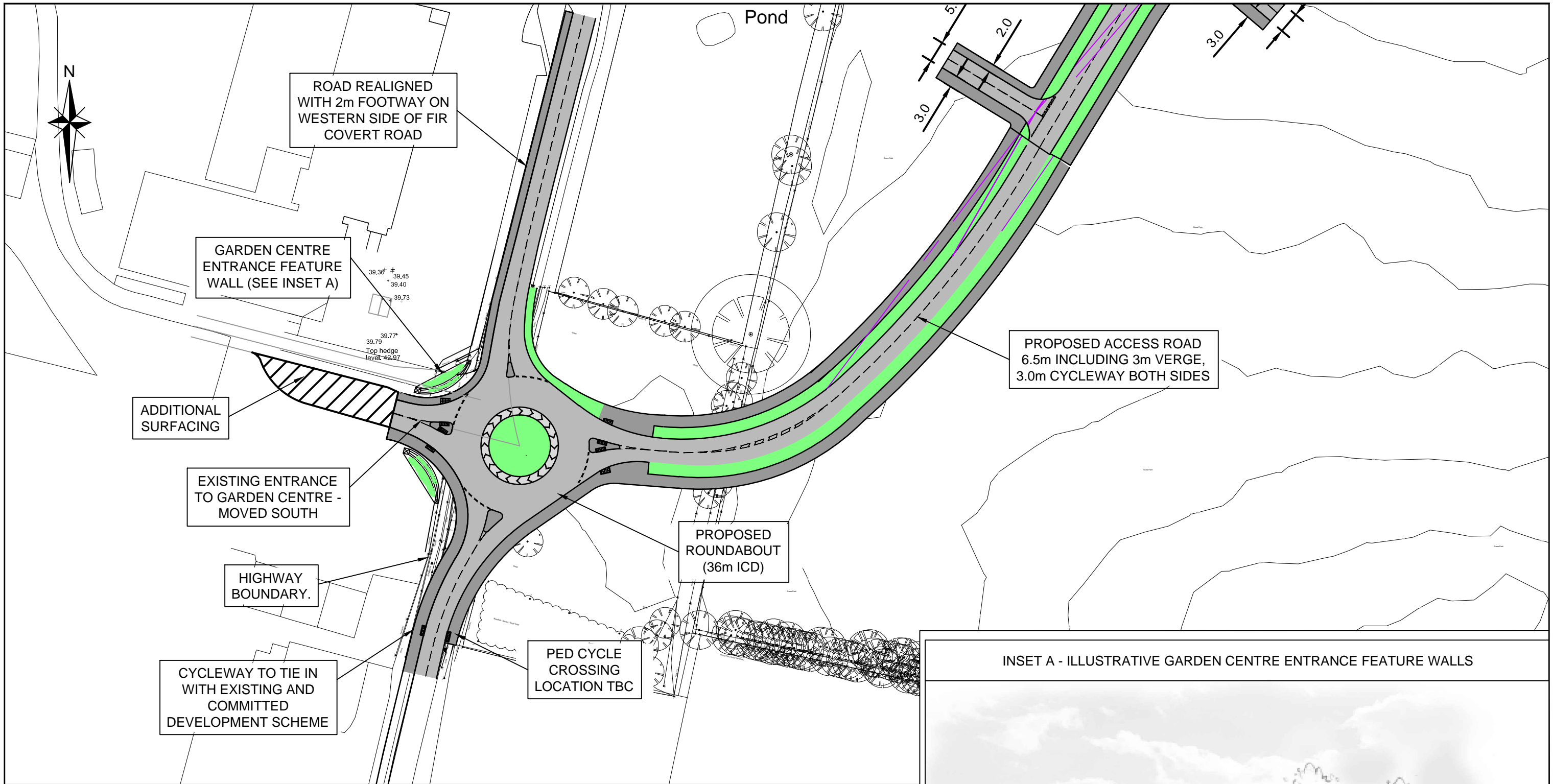
CANNON
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DRAWING NUMBER	REV.
U741-PL-DR-218	P01

M:\U741 Land at Taveham: Nonok\DRAWINGS\AUTOCAD\CURRENT DRGS\U741-PL-SC-2-B-P01 OVERVIEW



ADDITIONAL SURFACING

EXISTING ENTRANCE TO GARDEN CENTRE - MOVED SOUTH

HIGHWAY BOUNDARY.

CYCLEWAY TO TIE IN WITH EXISTING AND COMMITTED DEVELOPMENT SCHEME

PED CYCLE CROSSING LOCATION TBC

PROPOSED ROUNDABOUT (36m ICD)

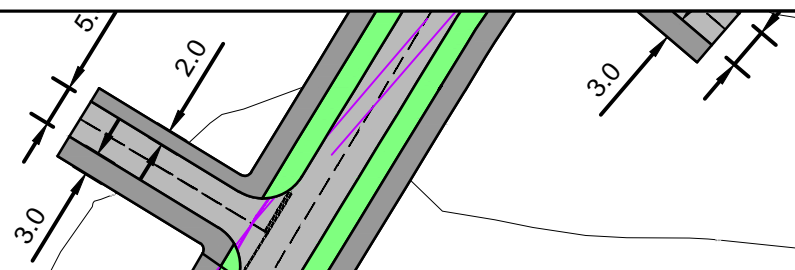
PROPOSED ACCESS ROAD 6.5m INCLUDING 3m VERGE, 3.0m CYCLEWAY BOTH SIDES

ROAD REALIGNED WITH 2m FOOTWAY ON WESTERN SIDE OF FIR COVERT ROAD

GARDEN CENTRE ENTRANCE FEATURE WALL (SEE INSET A)

39.36°
39.45
39.40
39.73
39.77°
39.79
Top hedge level: 42.97

Pond



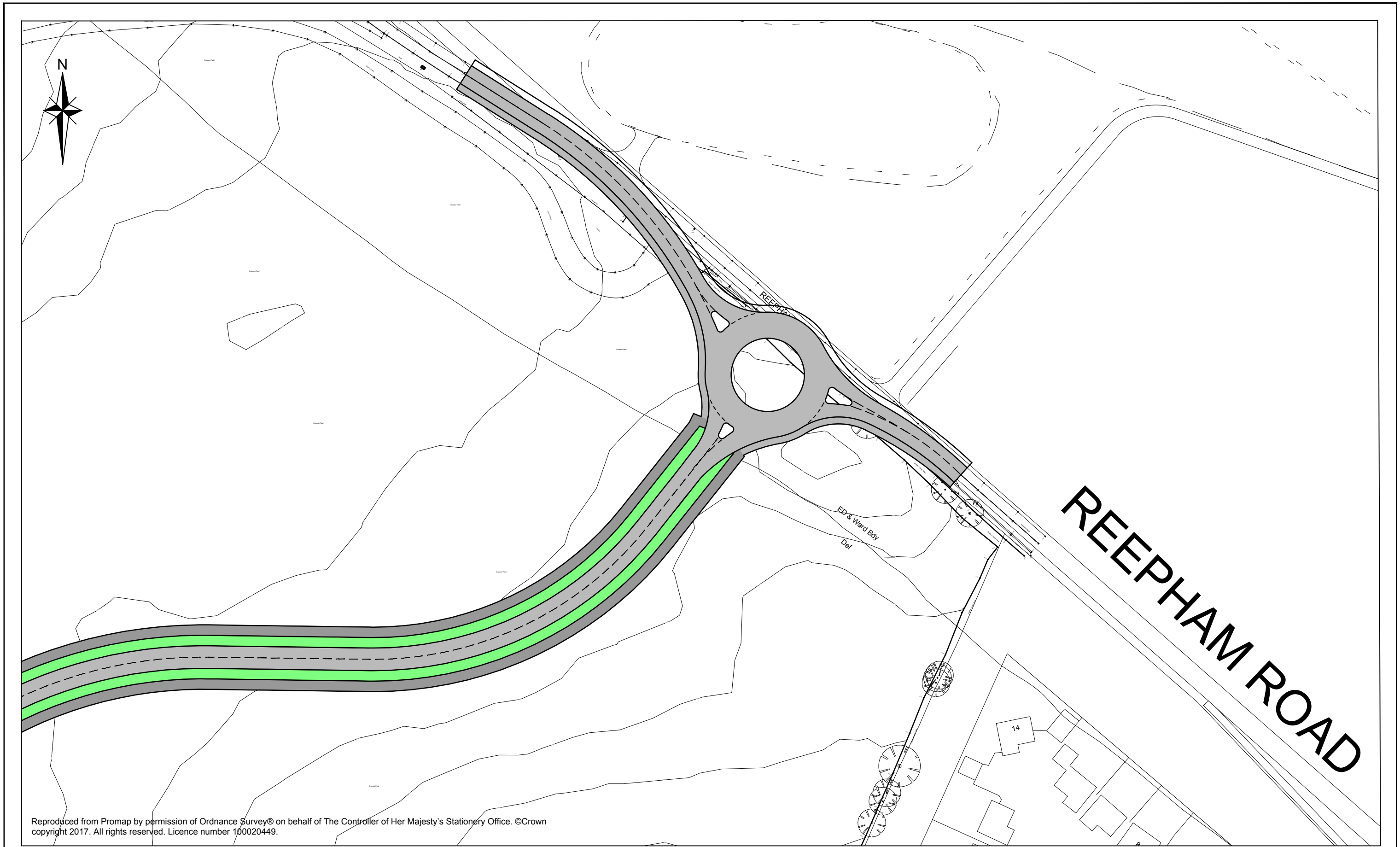
INSET A - ILLUSTRATIVE GARDEN CENTRE ENTRANCE FEATURE WALLS

- LEGEND**
- PROPOSED ACCESS ROAD
 - PROPOSED FOOTWAY
 - GRASS / VERGE
 - PROPOSED KERB


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		MARRIOTTS PARK		M SCOTT PROPERTIES			MAR 19				DRAWING NUMBER	
		DRAWING TITLE		DESIGNED	DRAWN	CHECKED	PASSED	SCALE @ A3	ISSUE STATUS		U741_PL03	D
		PROPOSED ROUNDABOUT LAYOUT		DR	DR	DCS	-	1:1000	PRELIMINARY			
A	INSET ADDED FOR ENTRANCE DETAIL	DS	DS	APR 19								
REV	DESCRIPTION	CH	PA	DATE								

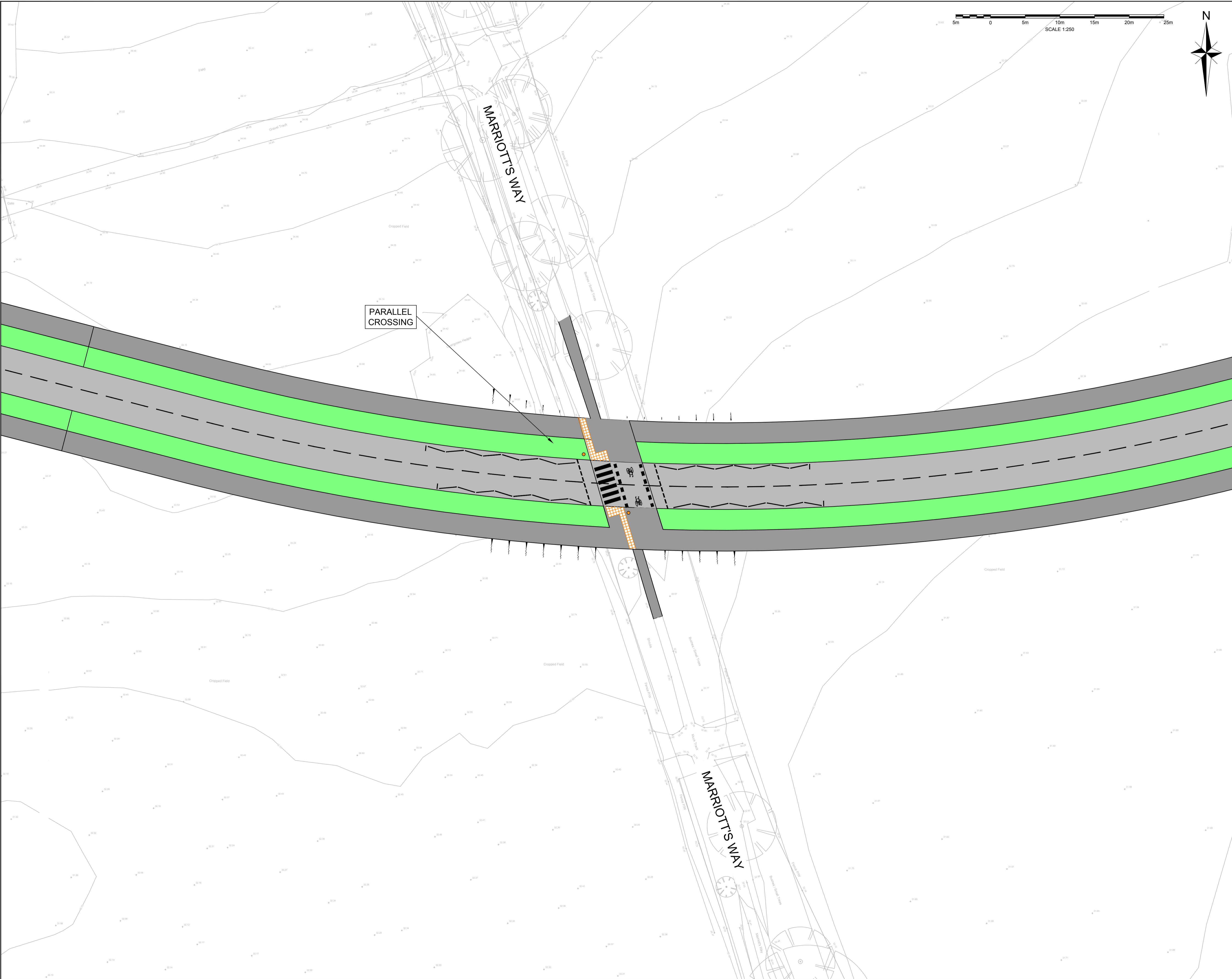
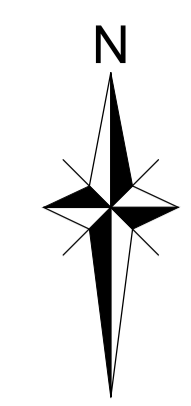
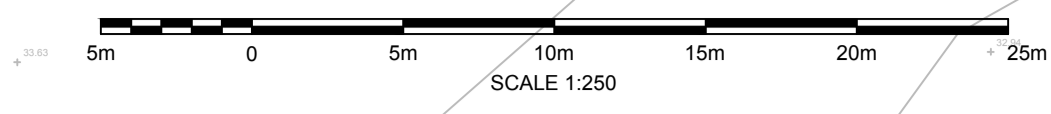
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				DRAWING TITLE REEPHAM ROAD JUNCTION		DESIGNED DR	DRAWN DR	CHECKED DCS	PASSED -		SCALE @ A3 1:1000	ISSUE STATUS PRELIMINARY	DRAWING NUMBER U741_PL12
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PARALLEL CROSSING

MARRIOTT'S WAY

MARRIOTT'S WAY

DRAFT

KEY

NOTES

REV	DESCRIPTION	DE	DR	CH	DATE
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DESIGNED BY	DRAWN BY	CHECKED BY
MM	MM	JM

SCALE @ A1 SIZE	DATE
1:250	29/04/19

PROJECT TITLE
LAND TO THE EAST OF FIR COVERT ROAD

DRAWING TITLE
MARRIOTT'S WAY CYCLEWAY PARALLEL CROSSING

CLIENT
SCOTT PROPERTIES

CANNON
CONSULTING ENGINEERS
Highways, Transport & Infrastructure Planning

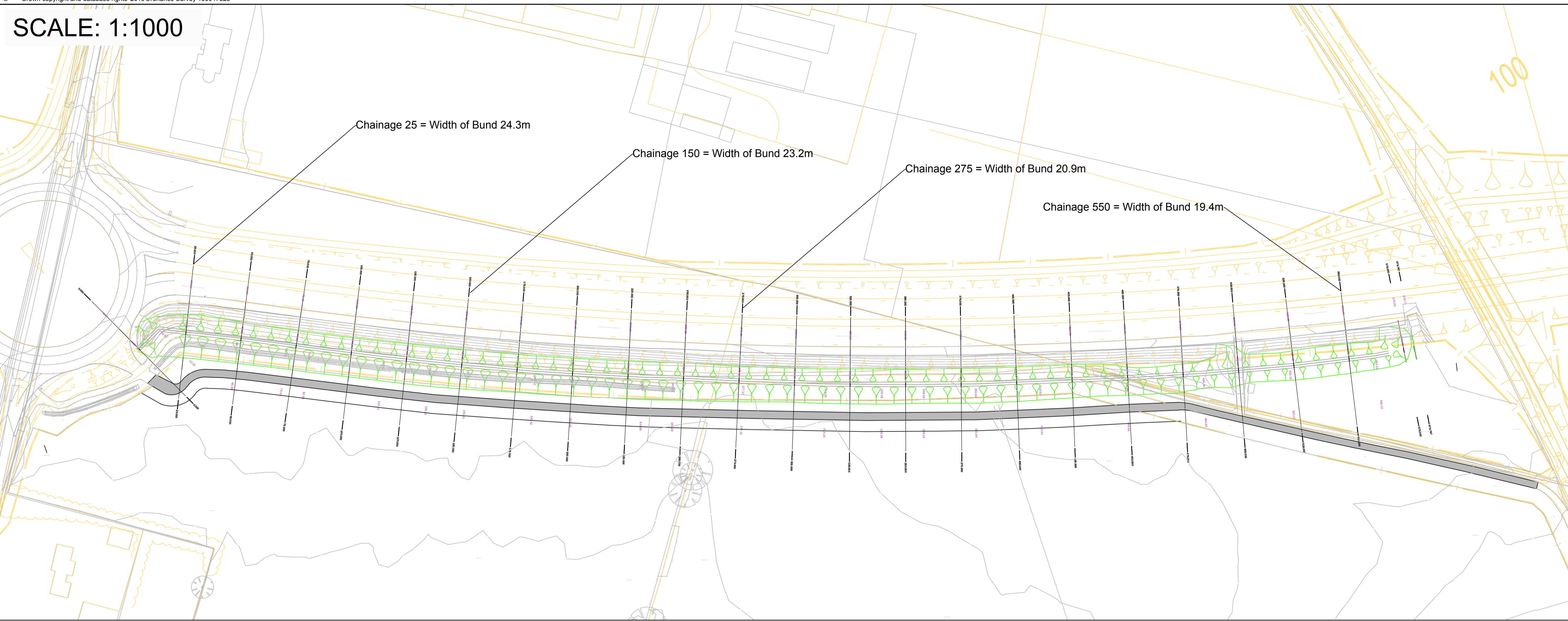
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DRAWING NUMBER	REV.
U741-PL-DR-216	P02

M:\U741 Land at Taverham: Norfolk\DRAWINGS\AUTOCAD\CURRENT DRGS\U741-PL-SK-216 P02 cycleway /fgr crossing

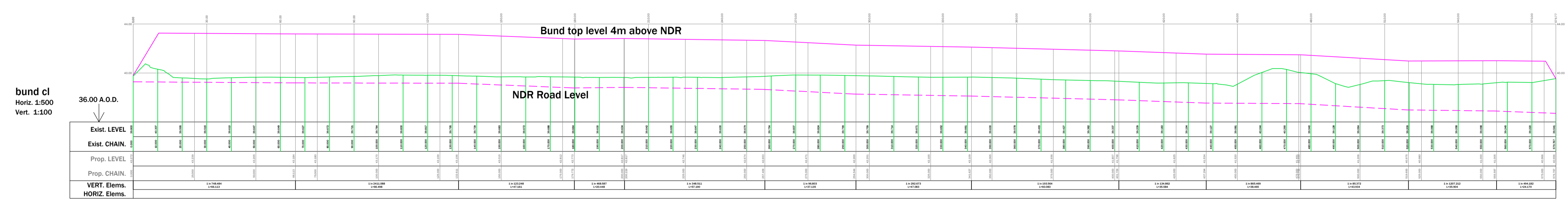
SCALE: 1:1000



KEY	
	PROPOSED EXTENSION TO BUND

NOTES

SCALE: Horizontal 1:1000 ; Vertical 1:200



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DRAWN BY	DWR				
CHECKED BY	DCS				
SCALE @ A1 SIZE		DATE			
See dwg		27 - 11 - 2019			
PROJECT TITLE					
MARRIOTT'S PARK					

DRAWING TITLE
NOISE BUND AND RELOCATED CYCLEWAY

CLIENT
SCOTT PROPERTIES LTD

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DRAWING NUMBER	REV.
U741-PL-SK-212	A



Attachment 1

Previous Representation

U741 – Marriott’s Park, Taverham, Broadland Norfolk
Technical Note – Highways and Transportation Summary Note
For Scott Properties
May 2019

Background

- 1.1 The Marriott’s Park site is being considered for a residential lead scheme comprising up to 1,400 residential properties (a mixture between bungalows and houses), a local centre including a new primary school and associated landscaping and infrastructure. The site is located to the north of Taverham and is bound by the existing settlement area (to the south), the recently completed Broadland Northway (A1270), to the north, the existing settlement area and Reepham Road (to the east) and Fir Covert Road (to the west) as shown on Figure 1.1 below.



Figure 1.1 – Site Location (mapping www.google.co.uk/maps accessed 22/05/2019)

- 1.2 The development site has previously been considered as part of previous local plan representations (Reference BDC0147 and BDC0148), when the route of the Broadland Northway (formally referred to as the Northern Distributor Road (NDR)) was not known or constructed. As a result there was concern regarding the highway capacity in this area.
- 1.3 The Broadland Northway was completed and opened in 2018 and initial surveys have shown that it has led to a reduction of trips on Fir Covert Road and the Fakenham Road Corridor which provides a key route to the Norwich City Centre. It is considered that Broadland



Northway provides greater travel opportunities and will allow greater distribution of trips. The site was included in the 2018 representations (Reference GNLPO337).

1.4 Policy 6 of the adopted joint core strategy states that the Norwich Area Transport Strategy (NATS) will be implemented to improve access to rural areas and that this will be achieved by:

- Constructing the NDR (Broadland Northway) – this has been completed;
- Significant improvement to the bus, cycling and walking network, including Bus Rapid Transit on key routes in the Norwich Area. This site is well located to provide connection to the existing infrastructure and the Broadland Northway has already led to a reduction of trips on Fir Covert Road and the Fakenham Road corridors which is identified as a Bus Rapid Transit (BRT) link.

Site Access

1.5 The site is currently used for agricultural purposes and can be accessed via multiple locations which include:

- A new gated access from a fifth arm of the Fir Covert Road / Broadland Northway Roundabout;
- Breck Farm Lane which provides access to the existing farm buildings from the existing residential area; and
- Reepham Road via a farm accommodation track which was constructed as part of the Broadland Northway.

1.6 In addition to the above, Marriott's Way cuts through the eastern parcel of the site. Marriott's Way forms part of National Cycle Route 1 and the Norfolk Trails Network. The construction of the Broadland Northway included a new bridge to continue the route to the north. This bridge was designed as a 'green bridge' with suitable landscaping and it is proposed to incorporate and enhance this link as part of the development proposals.

1.7 Norwich City Centre is located approximately 7 miles to the south-east of the site and National Cycle Route 1 provides a dedicated route from the site to the centre of the city.

1.8 To facilitate to proposed development it is proposed to construct a spine road between Fir Covert Road (on the western boundary) and Reepham Road (on the eastern boundary). This spine road will be designed to include a 6.5m wide carriageway suitable to accommodate the traffic associated with the proposals as well as being of a suitable width to accommodate a bus service, if required.

1.9 A roundabout is proposed from Fir Covert Road at the location of the existing Garden Centre central access as shown on Drawing U741_PL03 Revision B. This junction has been considered



as a four arm roundabout with a 36m ICD and is capable of accommodating the forecast traffic flows including the proposed development.

- 1.10 A three arm roundabout is proposed from Reepham Road immediately south of the existing farm accommodation track which would be removed. The proposed layout is shown on Drawing U741_PL012.
- 1.11 The existing gated access from the Broadland Northway / Fir Covert Road roundabout is proposed to be upgraded and extended into the site as a 3.5m wide shared cycleway / footway which will also provide an emergency access point to the north-west corner of the development as shown on Drawing U741_PL011.
- 1.12 The proposed access strategy has been discussed with Norfolk County Council (NCC) who in principle consider it to be suitable subject to a Road Safety Audit (RSA) and assessment as part of a Transport Assessment (TA) supporting an application.
- 1.13 The internal layout will be designed to incorporate and to provide links to existing facilities and network in the area.

Non-Car Modes

- 1.14 Access to the site by modes other than the private car include the following:
 - Walking – Pedestrian Networks;
 - Cycling – Cycle Route Networks; and
 - Public Transport – Existing Bus and Train service provision.

Walking and Cycling

- 1.15 Fir Covert Road is located on the western boundary of the site and runs between the newly constructed Broadland Northway (to the north) and Fakenham Road (to the south). There is an existing footway on the western side of the road which varies in width. The permitted Taverham Garden Centre development proposes to upgrade the footway from Fakenham Road up to the proposed retail development access (which is approximately 100m south of the proposed development access) to a 3.0m wide shared footway / cycleway..
- 1.16 In order to form a continuous route it is proposed that the Marriott's Park development will upgrade the link between the permitted retail access and the proposed access to a 3.0m shared footway / cycleway.
- 1.17 The permitted Taverham Garden Centre Development is committed to improving the existing Fir Covert Road / Fakenham Road / Beech Avenue junction to a traffic signal controlled cross roads. As part of these improvements it is proposed to:



- Provide Toucan Crossings on the Fir Covert Road and Fakenham Road (eastern) arms of the junction providing full connectivity around the junction; and
 - To upgrade the existing footway on the northern side of Fakenham Road from Fir Covert Road to the existing standalone Toucan Crossing to a 3.0m wide shared footway / cycleway.
- 1.18 Beech Avenue includes a shared footway / cycleway on the eastern side of the carriageway which provides a link between Fakenham Road and the Secondary School. The existing link is considered to be good and therefore no further improvement works are required.
- 1.19 Breck Farm lane is located towards the centre of the site and runs in a north to south direction from the existing farm (to the north) and Kingswood Avenue (to the South). Breck Farm Lane is a relatively narrow road with no footway connection. Breck Farm Lane continues to the south of Kingswood Avenue as a shared footway / cycleway for the first section before continuing as a residential road with footway provision on the western side. This route is a key route to the Primary School.
- 1.20 As part of the development it is proposed to convert the northern section of Breck Farm Lane from Kingswood Avenue into the development site to a shared footway / cycleway to extend to existing route to the primary school and key facilities in Taverham. In addition this link will provide access to the existing bus stops located on Kingswood Avenue.
- 1.21 Kingswood Avenue provides the main access to the existing settlement area from Fakenham Road. The road comprises relatively wide traffic calmed carriageway with a footway on the southern side and a shared footway / cycleway on the northern side. The footway / cycleway provision is segregated from the carriageway via a verge.
- 1.22 The provision is considered to be good and therefore no further works are considered necessary.
- 1.23 Along the northern boundary of the site a shared footway / cycleway was constructed as part of the Broadland Northway. This forms a connection from Fir Covert Road through the proposed development site to the Marriott's Way cycle route. Marriott's Way is a shared cycle and pedestrian footway which forms part of National Cycle Route 1 and the Norfolk Trails network, which provides a direct link from Taverham to Norwich. The route from the site to the centre of Norwich is illustrated on the extract below.

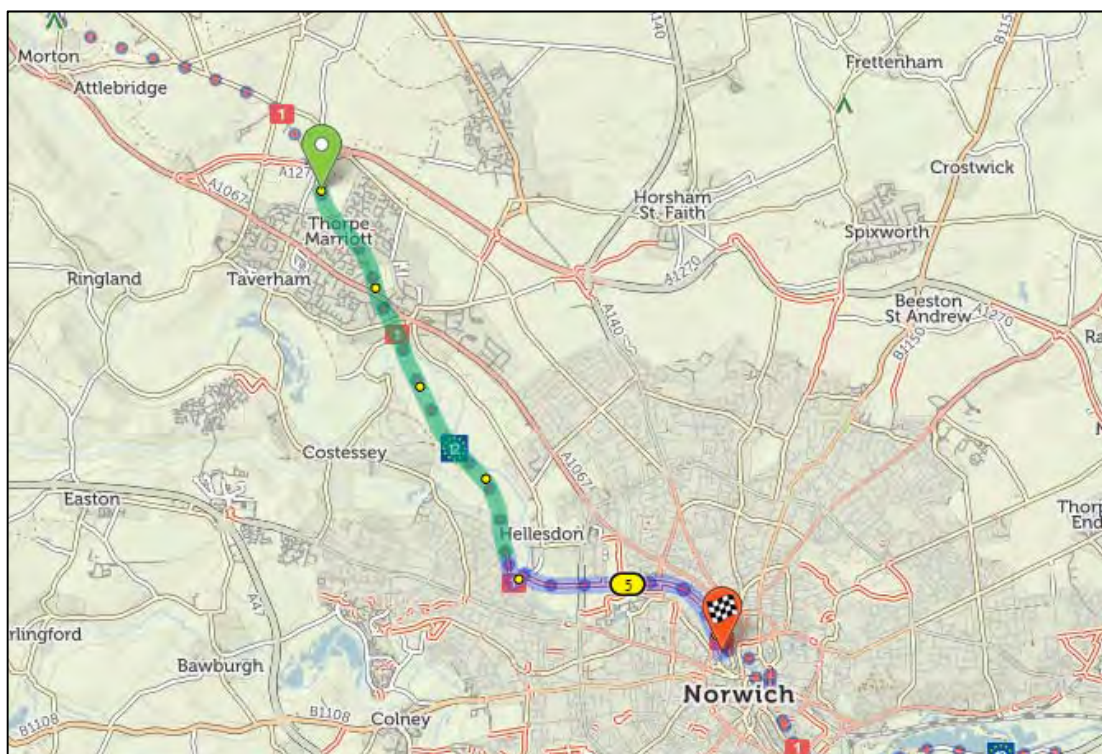


Image 1.2 – Extract from <https://cycle.travel/map> (accessed 23/05/2019)

- 1.24 The route shown above illustrates the route from the centre of the proposed development site to Norwich City Centre. In total this route is approximately 6.2 miles long of which 5.9 miles or 95% of the route is on dedicated cycle ways. It is considered that this is the only development site with a dedicated cycleway to the centre of the City. The existing cycleway within the site will be incorporated into the design of the scheme and suitable enhancements will be considered to encourage residents of this area to cycle into the city centre for leisure and commuting trips.
- 1.25 Reference is made to the Department for Transport Local Transport Note 1/04 – Policy, Planning and Designing for Walking and Cycling. This document refers to the Chartered Institution of Highways and Transportation (CIHT) guidelines for “Providing for Journeys on Foot” which considers suggested acceptable walking distances for various journey purposes such as commuting, walking to school and recreational journeys.

CIHT Guidelines	Distance		Walk Time	
	Commuting, Walking to School and Recreational	Other Non-Commuter Journeys	Commuting, Walking to School and Recreational	Other Non-Commuter Journeys
Desirable	500m	400m	6.25 mins	5 mins
Acceptable	1,000m	800m	12.5 mins	10 mins
Considered	2,000m	1,200m	25 mins	15 mins

Table 1.1: CIHT guidance 'Providing for Journeys on Foot'



1.26 Table 1.2 provides a summary of walking and cycling distances and journey times to key local services/facilities from the centre of the site. The calculations are based on a walk time of approximately 80m per minute and a cycle time of approximately 270m per minute.

Facility/Service	Distance (Metres)	Journey Time (mins)	
		Walking	Cycling
Taverham Veterinary Hospital	200	3	1
Orchidale Children's Nursery	250	3	1
Taverham Garden Centre and associated shops	250	3	1
Taverham Football Club	300	4	1
Hinks Close Bus Stops	400	5	1
Taverham High School	950	12	4
Local Store (Tesco Express)	1,000	13	4
Lloyds Pharmacy	1,000	13	4
Nightingale Infant and Nursery School	1,400	18	5
Taverham Surgery	1,400	18	5
Taverham Village Hall	1,400	18	5
Taverham Library	1,400	18	5
Taverham V E C E Junior School	1,400	18	5
Tesco Superstore	2,600	33	10

Table 1.2: Walking and Cycling Journey Time Summary

1.27 The table above demonstrates that the proposed development is widely accessible by foot and cycle to a number of key services and facilities.

1.28 The routes identified above are considered to be the 'primary routes' for walking and cycling from the proposed development. The masterplan for the development will be designed to connect to these routes.

Public Transport

Bus Services

1.29 As described earlier the site is located adjacent to the Broadland Northway which provides greater accessibility to Norwich and as a result has led to a reduction of trips on Fir Covert Road and the Fakenham Road Corridor. Fir Covert Road and Fakenham Road are identified in the adopted Joint Core Strategy (JCS) as a Bus Rapid Transit (BRT) route, as illustrated on the extract below.

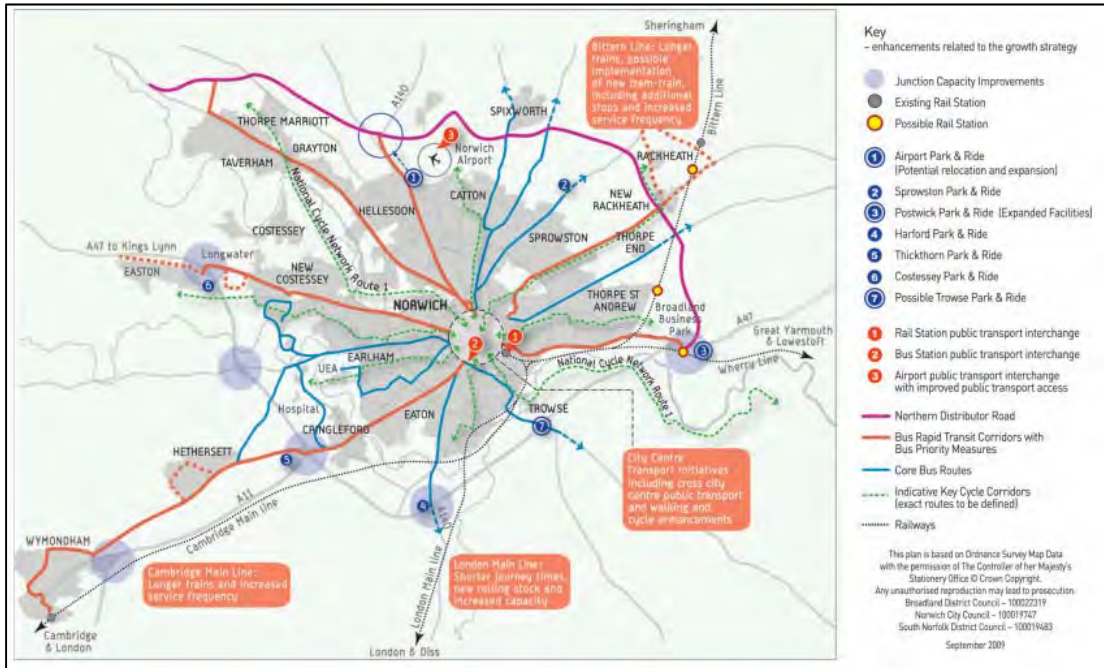


Image 1.3 – Extract of Proposed Implementation Plan from Joint Core Strategy pg 61

- 1.30 It is considered that the site is well located to access this corridor and the benefits of the use of sustainable travel modes such as public transport can be promoted. A review of the existing bus services are described in the paragraphs below.
- 1.31 There is a local bus service operating along Kingswood Avenue. This can be accessed from the bus stop located approximately 400m south of the proposed development, adjacent to Hinks Close on Kingswood Avenue.
- 1.32 Bus service 28 is identified as operating along and in close proximity to Kingswood Avenue which is operated by First in Norfolk & Suffolk. On average these services provide an hourly service Monday-Sunday to Thorpe Marriott (6 minutes), Hellesdon (12 minutes) and Norwich (33 minutes).
- 1.33 Four additional services are identified as operating along and in close proximity to Fakenham Road, namely services 23 and 608 which are operated by Sanders Coaches and the services 29 and X29 which are operated by First in Norfolk & Suffolk. On average these services provide an hourly service Monday-Saturday to Fakenham (46 minutes), Hellesdon (11 minutes) and Norwich (30 minutes).
- 1.34 A summary of the bus frequencies is summarised below.



	Operator	Route (minutes to destination)	Frequency			
			Mon-Fri	First & Last Bus	Sat	Sun
28	First in Norfolk & Suffolk	Norwich – Hellesdon – Taverham – Thorpe Marriott (6)	Two services an hour	0725 2337	Two services an hour	Two services an hour
28	First in Norfolk & Suffolk	Thorpe Marriott (1) – Taverham (2) – Hellesdon (12) – Norwich (33)	Two services an hour	0618 2243	Two services an hour	Two services an hour
	Operator	Route (minutes to destination)	Frequency			
			Mon-Fri	First & Last Bus	Sat	Sun
23	Sanders Coaches	Horningtoft – North Elmham – Taverham (4) – Norwich (35)	Wednesday only, one service	0955	No Service	No Service
23	Sanders Coaches	Norwich – Taverham – North Elmham – Horningtoft (53)	Wednesday only one service	1412	No Service	No Service
29	First in Norfolk & Suffolk	Taverham (2) – Hellesdon (12) – Norwich (31)	Hourly	0743 1648	Hourly	No Service
29	First in Norfolk & Suffolk	Norwich - Hellesdon – Taverham (1-15)	Hourly	0840 1757	Hourly	No Service
608	Sanders Coaches	Reepham - Sparham - Lenwade - Taverham (2) – Drayton (8)	PM School service	1604	No Service	No Service
608	Sanders Coaches	Drayton -Taverham – Lenwade (5) - Sparham (11) – Reepham (30)	AM School service	0803	No Service	No Service
X29	First in Norfolk & Suffolk	Fakenham – Taverham (1) - Hellesdon (11) – Norwich (30)	Hourly	0653 1914	Hourly	Three services a day
X29	First in Norfolk & Suffolk	Norwich - Hellesdon - Taverham – Fakenham (46)	Hourly	0759 1836	Hourly	Three services a day

Table 1.3: Bus Services and Frequencies



Rail

- 1.35 Norwich Rail Station is located approximately 11km from Taverham. The station provides trains to London (2 hour journey), Cambridge (1 hour 20 minutes journey), Lowestoft (40 minute journey), Chesterfield (3 hour 20 minutes journey) and Great Yarmouth (38 minute journey) stopping at the major towns and villages on route.

National Census Travel to Work Review

- 1.36 The site is located in the Super Output Area – Mid Layer (MSOA) Broadland 006. The 2011 Census data for Journeys to Work for this MSOA has been reviewed as a high level to understand the broad travel patterns. The 2011 Census Data recorded 8% of the residents in the Broadland 006 also work within the area. Of these residents 40% travel by sustainable modes (walking (33%), cycling (5%) or public transport (2%)).
- 1.37 A further 14% of residents who live in MSOA Broadland 006 work within Norwich 007 of which 34% use sustainable modes (walking, cycling or public transport). Public Transport mode share to Norwich 007 (City Centre) is 28%. For travel to Norwich as a whole, public transport mode share is 15%.
- 1.38 The sustainable mode share recorded in the national census is considered to be good and aligns with the objectives of the local policies to promote sustainable travel modes. It is expected that the proposed development will reflect these travel patterns which can be promoted through active travel planning.