



Proposed Great Wolf Lodge,
Chesterton, Bicester

Highways and Transport Evidence
on behalf of Great Lakes UK Limited

of

Philip Anthony Bell BEng(Hons) MCIT MILT MCIHT

APPENDICES

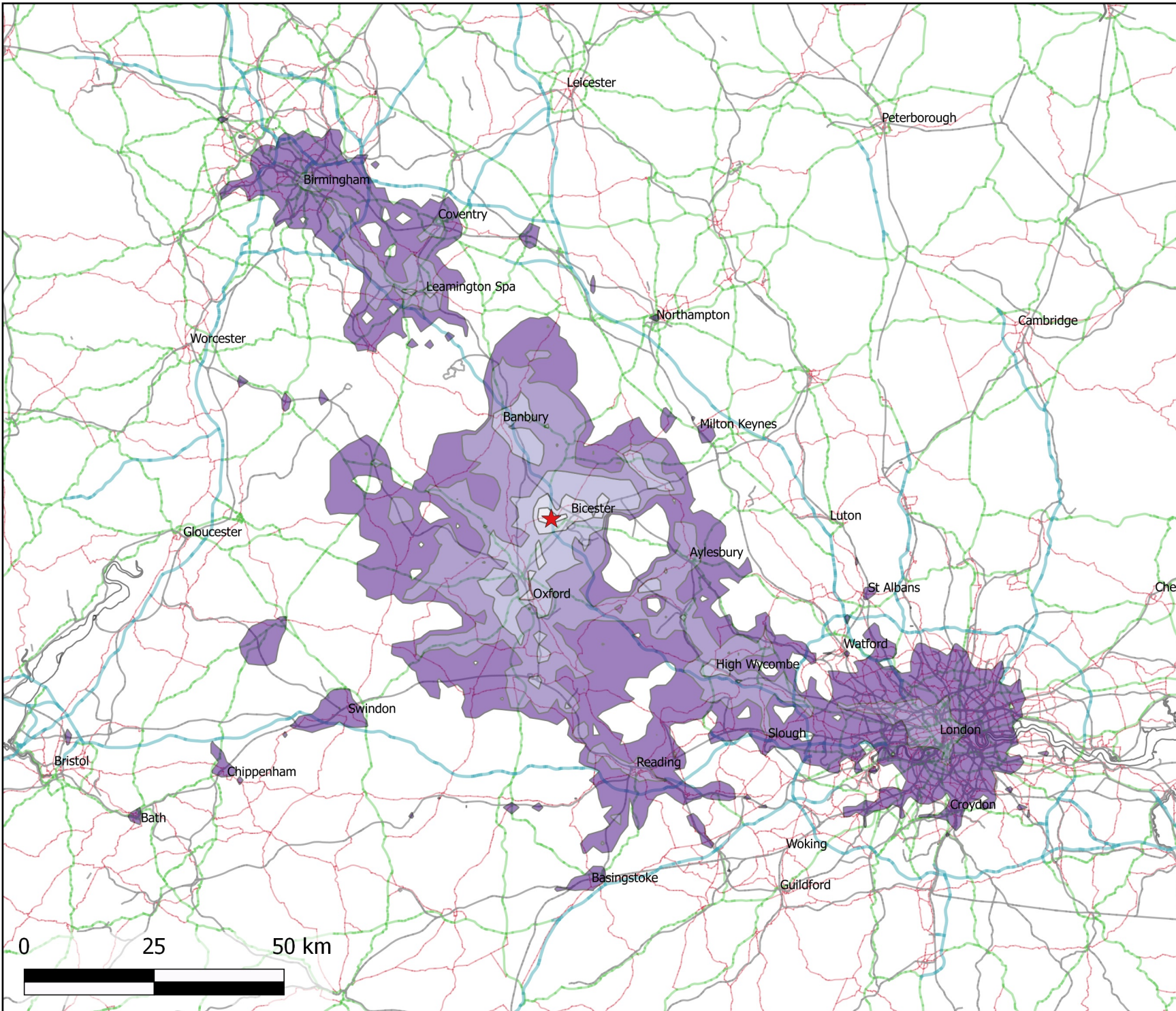
PINS Reference: APP/C3105/W/20/3259189
LPA Reference: SU/19/0235

Appendices

- A TRACC Analysis - Guests
- B Visitor Public Transport Population Analysis
- C Drawings – Pedestrian and Cycle Improvements
- D OCC Response September 2020
- E Proposed Mitigation Works – B430/B4030 Middleton Stoney
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- H Email Correspondence from OCC – December 2020
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Appendix A

TRACC Analysis - Guests



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Key:

- ★ Site Location
- Motorway
- Primary road
- Secondary road
- Railway line

Public Transport Isochrone (minutes)

- 30
- 60
- 90
- 120
- 150

Project
Bicester Golf Club

Title
Accessibility by Public Transport



84 North Street, Guildford, GU1 4AU
Tel: +44 (0) 1483 531 300

scale stated	drawn by EU	date 02/09/2020	
drawing number 1803047-FIG1		rev -	

Appendix B

Visitor Public Transport Population Analysis

Population Analysis of TRACC Public Transport Assessment

Journey Time	Population
30 minutes	42,967
60 minutes	293,765
90 minutes	721,491
120 minutes	1,108,372
150 minutes	13,158,795

Analysis based on wards within journey time based on TRACC Assessment (1803047-FIG1) and ward population attached

Population Analysis of TRACC Public Transport Assessment

Population based on wards within 30 minute journey time based on TRACC Analysis

2011 ward	2011
E05006518 : Ambrosden and C	3,850
E05006525 : Bicester East	5,846
E05006526 : Bicester North	7,014
E05006527 : Bicester South	5,411
E05006528 : Bicester Town	5,158
E05006529 : Bicester West	7,425
E05006537 : Kidlington South	8,263

Population Analysis of TRACC Public Transport Assessment

Population based on wards within 30-60 minute journey time based on TRACC Analysis

2011 ward	2011
E05006547 : Carfax	6,361
E05006548 : Churchill	7,303
E05006549 : Cowley	6,562
E05006550 : Cowley Marsh	6,977
E05006551 : Headington	5,764
E05006552 : Headington Hill and Northway	6,224
E05006553 : Hinksey Park	5,944
E05006554 : Holywell	5,425
E05006555 : Iffley Fields	5,713
E05006556 : Jericho and Osney	6,820
E05006557 : Littlemore	6,441
E05006558 : Lye Valley	7,372
E05006560 : North	5,809
E05006562 : Quarry and Risinghurst	6,308
E05006563 : Rose Hill and Iffley	6,500
E05006564 : St Clement's	5,952
E05006565 : St Margaret's	5,497
E05006566 : St Mary's	5,330
E05006567 : Summertown	7,209
E05006568 : Wolvercote	5,866
E05006578 : Didcot All Saints	5,731
E05006579 : Didcot Ladygrove	8,043
E05006580 : Didcot Northbourne	5,635
E05006581 : Didcot Park	5,731
E05006517 : Adderbury	3,011
E05006519 : Banbury Calthorpe	5,409
E05006521 : Banbury Grimsbury and Castle	10,880
E05006522 : Banbury Hardwick	8,450
E05006523 : Banbury Neithrop	5,868
E05006524 : Banbury Ruscote	8,470
E05006531 : Caversfield	3,017
E05006533 : Deddington	2,695
E05006534 : Fringford	2,363
E05006536 : Kidlington North	5,460
E05006538 : Kirtlington	3,055
E05006539 : Launton	3,629
E05006540 : Otmoor	2,511
E05006542 : The Astons and Heyfords	4,939
E05006544 : Yarnton, Gosford and Water Eaton	4,651
E05002599 : Buckingham North	6,469
E05002600 : Buckingham South	5,574
E05002609 : Haddenham	8,105
E05002629 : Winslow	5,725

Population Analysis of TRACC Public Transport Assessment

Population based on wards within 60-90 minute journey time based on TRACC Analysis

2011 ward	2011
E05006532 : Cropredy	2,718
E05006535 : Hook Norton	2,596
E05006541 : Sibford	2,674
E05006543 : Wroxton	2,616
E05006545 : Barton and Sandhills	7,202
E05006546 : Blackbird Leys	6,077
E05006561 : Northfield Brook	6,991
E05006569 : Aston Rowant	2,370
E05006570 : Benson	6,336
E05006571 : Berinsfield	6,035
E05006572 : Brightwell	2,554
E05006573 : Chalgrove	2,830
E05006574 : Chiltern Woods	2,369
E05006575 : Chinnor	5,924
E05006576 : Cholsey and Wallingford South	5,567
E05006577 : Crowmarsh	2,833
E05006582 : Forest Hill and Holton	2,724
E05006583 : Garsington	2,658
E05006584 : Goring	5,745
E05006585 : Great Milton	2,727
E05006586 : Hagbourne	2,717
E05006589 : Sandford	2,528
E05006590 : Shiplake	5,208
E05006591 : Sonning Common	5,433
E05006592 : Thame North	5,675
E05006593 : Thame South	5,886
E05006594 : Wallingford North	6,033
E05006595 : Watlington	5,451
E05006596 : Wheatley	5,291
E05006597 : Woodcote	2,604
E05002594 : Aston Clinton	9,641
E05002595 : Aylesbury Central	3,821
E05002596 : Bedgrove	8,804
E05002597 : Bierton	1,705
E05002598 : Brill	2,578
E05002601 : Cheddington	3,023
E05002602 : Coldharbour	9,398
E05002603 : Edlesborough	2,847
E05002604 : Elmhurst and Watermead	9,168
E05002605 : Gatehouse	6,187
E05002606 : Great Brickhill	3,042
E05002607 : Great Horwood	3,074
E05002608 : Grendon Underwood	3,172
E05002610 : Long Crendon	5,259
E05002611 : Luffield Abbey	3,049

E05002612 : Mandeville and Elm Farm	8,726
E05002613 : Marsh Gibbon	3,412
E05002614 : Newton Longville	2,457
E05002615 : Oakfield	5,896
E05002616 : Pitstone	3,674
E05002617 : Quainton	2,551
E05002618 : Quarrendon	5,478
E05002619 : Southcourt	6,912
E05002620 : Steeple Claydon	2,769
E05002621 : Stewkley	3,011
E05002622 : Tingewick	3,275
E05002623 : Waddesdon	2,513
E05002624 : Walton Court and Hawkslade	5,882
E05002625 : Weedon	3,270
E05002626 : Wendover	8,334
E05002627 : Wing	2,745
E05002628 : Wingrave	2,591
E05002656 : Beaconsfield South	3,789
E05002657 : Beaconsfield West	3,188
E05002667 : Gerrards Cross South	3,541
E05002668 : Hedgerley and Fulmer	1,358
E05002290 : Basildon	3,103
E05002294 : Calcot	8,785
E05002298 : Compton	3,164
E05002316 : Theale	2,835
E05002319 : Abbey	12,629
E05002335 : Baylis and Stoke	11,450
E05002337 : Central	12,364
E05002338 : Chalvey	12,117
E05002347 : Upton	9,386
E05006636 : Charlbury and Finstock	3,627
E05006638 : Ducklington	2,110
E05006639 : Eynsham and Cassington	5,734
E05006640 : Freeland and Hanborough	4,190
E05006641 : Hailey, Minster Lovell and Leafield	4,059
E05006644 : North Leigh	1,928
E05006645 : Standlake, Aston and Stanton Harcourt	4,208
E05006646 : Stonesfield and Tackley	4,029
E05006647 : The Bartons	1,976
E05006648 : Witney Central	5,257
E05006649 : Witney East	7,861
E05006650 : Witney North	3,968
E05006651 : Witney South	6,186
E05006652 : Witney West	4,250
E05006653 : Woodstock and Bladon	3,998

Population Analysis of TRACC Public Transport Assessment

Population based on wards within 90-120 minute journey time based on TRACC Analysis

2011 ward	2011
E05007544 : Brunswick	9,931
E05007546 : Clarendon	6,266
E05007547 : Crown	5,624
E05007549 : Lapworth	2,954
E05007550 : Leek Wootton	2,510
E05007551 : Manor	8,345
E05007552 : Milverton	9,166
E05007557 : Warwick North	8,318
E05007558 : Warwick South	10,492
E05007559 : Warwick West	11,304
E05007561 : Willes	10,159
E05001228 : St Michael's	24,119
E05000170 : Acton Central	15,427
E05000171 : Cleveland	14,558
E05000173 : Ealing Broadway	14,029
E05000175 : East Acton	18,706
E05000177 : Greenford Broadway	17,625
E05000178 : Greenford Green	14,349
E05000179 : Hanger Hill	15,561
E05000185 : Northolt West End	15,121
E05000187 : Perivale	15,339
E05000328 : Charville	12,622
E05000332 : Hillingdon East	12,906
E05000340 : Uxbridge North	12,048
E05000341 : Uxbridge South	13,979
E05000250 : Addison	11,518
E05000251 : Askew	14,160
E05000263 : Shepherd's Bush Green	12,175
E05000382 : Abingdon	10,013
E05000383 : Brompton	8,839
E05000388 : Earl's Court	9,104
E05000391 : Holland	9,767
E05000395 : Queen's Gate	9,847

Population Analysis of TRACC Public Transport Assessment

Population based on wards within 120-150 minute journey time based on TRACC Analysis

local authority: district / unitary (prior to April 2015)	2011
Watford	90,301
Leicester	329,839
Northampton	212,069
Barking and Dagenham	185,911
Barnet	356,386
Bexley	231,997
Brent	311,215
Bromley	309,392
Camden	220,338
City of London	7,375
Croydon	363,378
Ealing	338,449
Enfield	312,466
Greenwich	254,557
Hackney	246,270
Hammersmith and Fulham	182,493
Haringey	254,926
Harrow	239,056
Havering	237,232
Hillingdon	273,936
Hounslow	253,957
Islington	206,125
Kensington and Chelsea	158,649
Kingston upon Thames	160,060
Lambeth	303,086
Lewisham	275,885
Merton	199,693
Newham	307,984
Redbridge	278,970
Richmond upon Thames	186,990
Southwark	288,283
Sutton	190,146
Tower Hamlets	254,096
Waltham Forest	258,249
Wandsworth	306,995
Westminster	219,396
Bromsgrove	93,637
Cannock Chase	97,462
Lichfield	100,654
North Warwickshire	62,014
Nuneaton and Bedworth	125,252
Rugby	100,075
South Staffordshire	108,131
Stafford	130,869
Walsall	269,323

Warwick	137,648
Wolverhampton	249,470
Worcester	98,768
Wyre Forest	97,975
Bath and North East Somerset	176,016
Aylesbury Vale	174,137
Basingstoke and Deane	167,799
Cherwell	141,868
Milton Keynes	248,821
Slough	140,205
Vale of White Horse	120,988
West Berkshire	153,822
West Oxfordshire	104,779
Windsor and Maidenhead	144,560

Appendix C

Drawings Pedestrian/ Cycle Improvements



N:\Projects\gw\Bice 1803047\Drawings\1803047-03F.dwg

Legend:

Highway Boundary —



84 North Street
Guildford
Surrey
GU1 4AU

Cargo Works
1-2 Hatfields
London
SE1 9PG

T: 01483 531 300

T: 020 8065 5208

www.motion.co.uk

Project:
Great Wolf Resort, Bicester

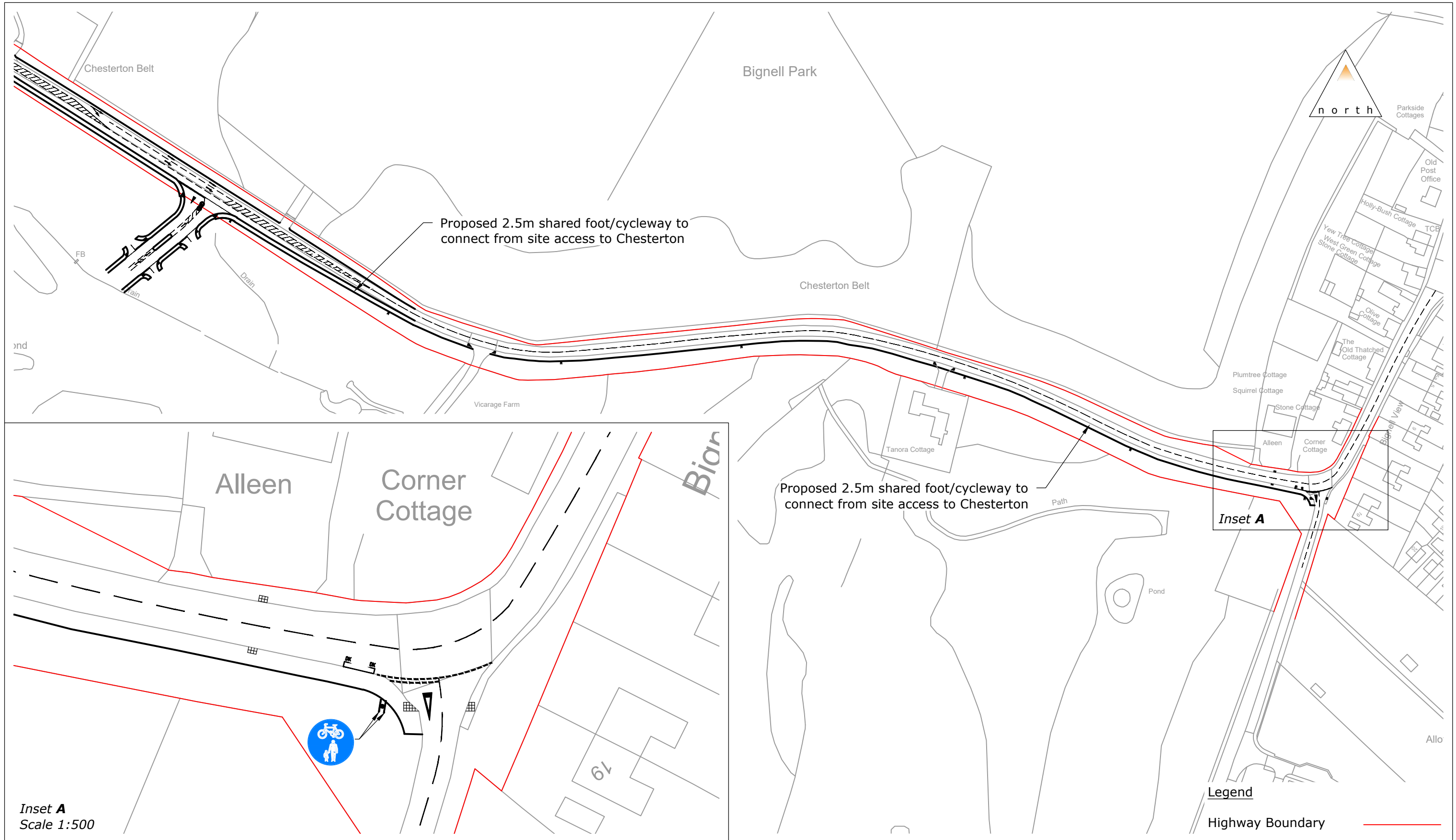
Title:
Proposed Access Arrangement

Scale: 1:1250 (@ A3)

Notes:

Drawing:
1803047-03

Revision:
F



Inset A
Scale 1:500

Legend
Highway Boundary

Note:
Shared foot/cycleway roundels to be mounted along proposed foot/cycle way



84 North Street
Guildford
Surrey
GU1 4AU
T: 01483 531 300

Cargo Works
1-2 Hatfields
London
SE1 9PG
T: 020 8065 5208

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Project:
Great Wolf Resort, Bicester

Title:
Proposed Shared Foot/Cycleway

Scale: 1:2000 (@ A3)

Notes:

Drawing: 1803047-02	Revision: A
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N:\Projects\gw\Bice 1803047\Drawings\1803047-02A.dwg



Legend:

Highway Boundary ———



84 North Street
Guildford
Surrey
GU1 4AU

Cargo Works
1-2 Hatfields
London
SE1 9PG

T: 01483 531 300

T: 020 8065 5208

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Project:
Great Wolf Resort, Bicester

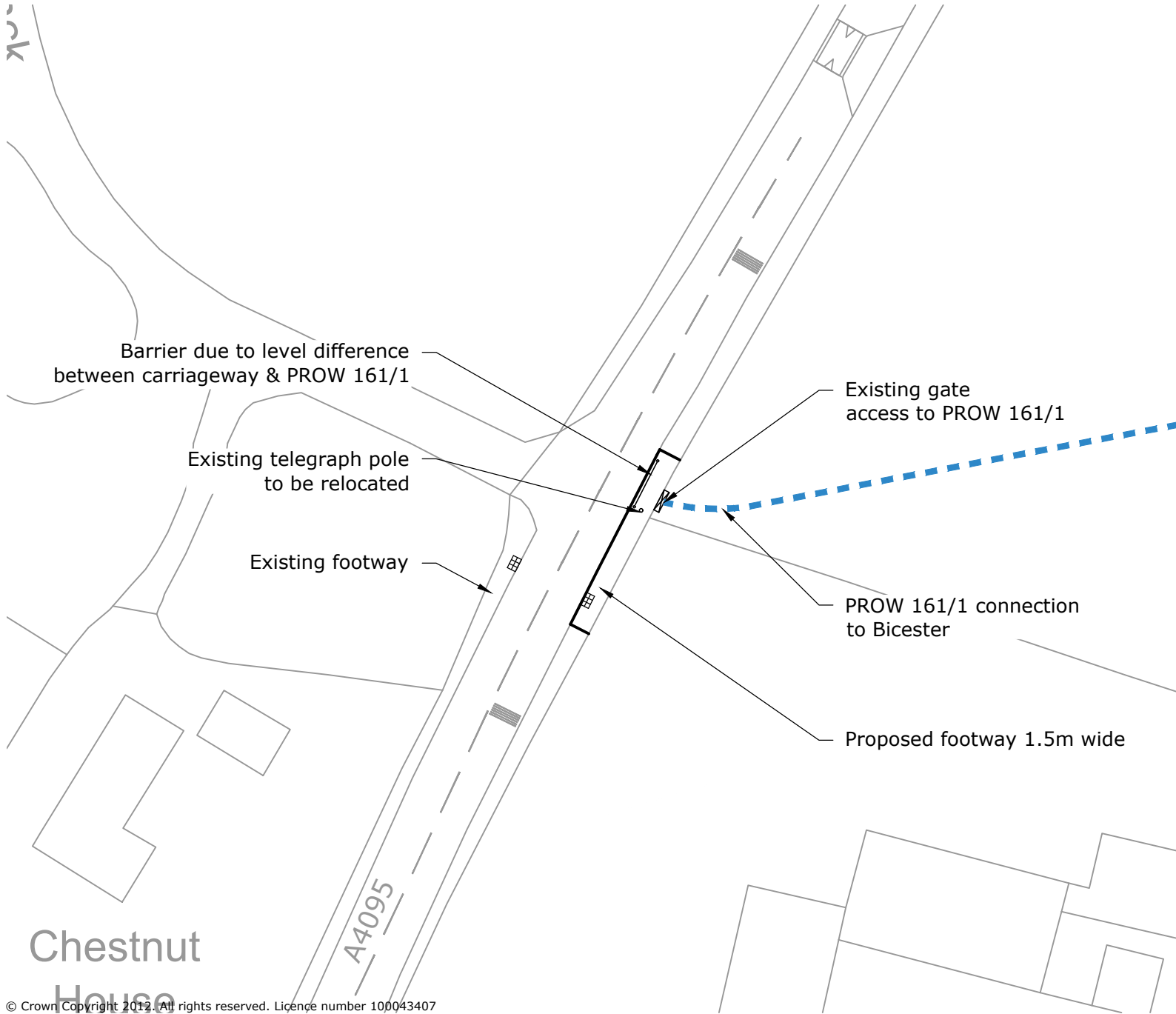
Title:
Proposed Footway

Scale: 1:1000 (@ A3)

Notes:

Drawing:
1803047-15

Revision:
-



84 North Street
 Guildford
 Surrey
 GU1 4AU

Cargo Works
 1-2 Hatfields
 London
 SE1 9PG

T: 01483 531 300

T: 020 8065 5208

www.motion.co.uk

Project: Great Wolf Resort, Bicester	
Title: Footway Connection to PROW 161/1	
Scale: 1:500 (@ A4)	
Drawing: 1803047-08	Revision: -

N:\Projects\gw\Bice 1803047\Drawings\1803047-08.dwg

Appendix D

OCC Response September 2020

OXFORDSHIRE COUNTY COUNCIL'S PRE APPLICATION ADVICE ON THE RESPONSE TO CONSULTATION ON THE FOLLOWING DEVELOPMENT PROPOSAL

District: Cherwell

Application No: 20/CH0003/Preapp

Proposal: Advise on highways and transport matters associated with development proposals for a new family resort at a site in Chesterton near Bicester.

Location: B430/ B4030 Middleton Stoney junction, Bicester.

Response date: 15th September 2020

Purpose of document

This report sets out Oxfordshire County Council's view on the proposal.

This report contains officer advice in the form of a strategic response (if appropriate) and technical team response(s).

Where possible these comments contain:

- Advice on the feasibility of the location.
- Advice on what to include in a full application.
- Advice on the need for any pre-application surveying to be undertaken.

Disclaimer

Please note this advice represents the opinion of an Officer(s) of the Council only, which is given entirely without prejudice to the formal consideration of any planning application which may be submitted.

Application No: 20/CH0003/Preapp

Location: B430/ B4030 Middleton Stoney junction, Bicester.

Transport Development Control

As you may be aware, Oxfordshire County Council is a consultee of the local planning authority and provides advice on the likely transport and highways impact of development where necessary.

It should be noted that the advice below represents the informal opinion of an Officer of the Council only, which is given entirely without prejudice to the formal consideration of any planning application, which may be submitted. Nevertheless, the comments are given in good faith and fairly reflect an opinion at the time of drafting given the information submitted.

Background:

The request for advice follows the refusal of planning permission (application no. 19/02550/F) for a leisure resort incorporating a hotel, waterpark, family entertainment centre and other facilities on part of the existing golf course at Chesterton. The proposed development is commonly referred to as the Great Wolf Resort. Planning permission was refused for six reasons in total; Oxfordshire County Council (OCC) had objected on transport and drainage grounds.

Motion (the Transport Consultants acting on behalf of the applicant) have instigated this advice procedure to seek resolution of the transport objection prior to an impending appeal against the refusal decision. As the objection was based on the operation of the signalised junction at Middleton Stoney, proposals relating to a modified layout have been put forward for review by OCC.

Detailed comments:

Technical Note N09, titled "Highways Matters", was submitted with the application for advice and concludes with four matters on which confirmation is sought from OCC. These are covered individually in the sections below.

- I. Confirmation that OCC have no objection to the Great Wolf development on the basis of accessibility or sustainability, subject to the package of sustainable transport improvements and measures detailed*

This matter is extensively covered in the two OCC Single Responses (19/02550/F, dated 10th January 2020 and 19/02550/F-2 dated 3rd March). The following section was included in the latter response:

Accessibility and Site Location

While the county council has not specifically identified an objection to the application on the basis of the site's location and accessibility, the response did highlight significant concerns regarding the accessibility of the site and its location.

The county council has identified requests for obligations and contributions to improve the accessibility of the site by sustainable transport modes should the development be granted planning permission. However, concern remains over the site's location which dictates that car travel to the site will remain the primary mode of travel to the site, even with the improvements identified.

OCC's position on this matter remains unchanged.

- II. Confirmation that the only junction for which OCC had an outstanding objection, at the time of determination of the planning application, is the B430/ B4030 Middleton Stoney junction and that OCC are satisfied that the development will not have a material traffic impact on any other junction on the local highway network*

The reason for an OCC transport objection is given in the Single Responses as:

- Severe congestion at the Middleton Stoney signalised junction will be exacerbated by the additional trips generated by the proposed development. This is contrary to paragraphs 103, 108 and 109 of the NPPF, Cherwell Local Plan Policy SLE4 and Oxfordshire Local Transport Plan 4 Policy 17

It is confirmed that the B430 / B4030 junction at Middleton Stoney remains the only junction that is the subject of an OCC objection.

- III. Confirmation that, based on the proposed mitigation works at the B430/B4030 and the additional analysis presented in this Note, OCC are satisfied that the development will not have a material traffic impact on the operation of the junction and their previous objection on the grounds of traffic impact at this junction has been resolved*

For the purpose of clarity, it is noted that OCC have considered not only this Technical Note (and the accompanying LinSig analysis), but also the follow-up exchange of emails and the virtual meeting. An updated Technical Note (N09 – Technical Note on Highways – 2020-09-04 (Final)) was submitted on 4th September.

The Technical Note presents a proposed junction layout drawing titled “Indicative Mitigation Works”, drg. no. 1803047-17 Rev. B, along with a LinSig analysis of the junction under two scenarios – with and without the Great Wolf Resort development. There is also a Stage 1 Road Safety Audit (RSA).

OCC conducted an initial review and reverted (19 August) with comments on the LinSig modelling and a request for Designer's comments on the RSA. Following a resubmission of the analysis it was noticed that an incorrect matrix of intergreen timings had been incorporated, so the correct matrix (as currently used at the junction) was supplied and used. It is accepted by OCC that the final LinSig analysis accurately models the two layouts. Output

from this analysis is included in the email from David Lewis (3 September) and formed the basis for discussion at the virtual meeting on 4 September.

The Middleton Stoney junction is, and will be further, impacted by large-scale development of the Local Plan allocation site at Heyford Park. There are two principal planning applications with potential mitigation schemes affecting the junction, as follows:

- 1) 10/01642/OUT (referred to as “Phase 1”). This application was approved with an indicative mitigation scheme as shown on the Woods Hardwick drawing no. HEYF/5/582 C. This scheme has not been implemented and OCC currently has some safety concerns, particularly in regard to the ghosted right-turn filter lane from the southbound B430 to the westbound B4030. It is recognised that if a bus gate were to be installed (see below) then the number of vehicles making this manoeuvre would be substantially reduced.
- 2) 18/00825/HYBRID (referred to as “Phase 2”). This application has not yet been considered by the Local Planning Authority Planning Committee. There has been significant discussion regarding traffic impacts and potential mitigation schemes for local villages, including Middleton Stoney. The scheme accepted in principle by OCC as mitigation for the impact of the development on Middleton Stoney includes a two-way bus gate on the road between Heyford Park and Middleton Stoney which would substantially reduce vehicle flows on the western arm but will increase flows on the northern arm. There would also be an HGV restriction on the eastern arm. LinSig analysis of the various potential mitigation measures has been undertaken by Peter Brett Associates (now Stantec) and reported in their Technical Note 024 Rev. D, which is included in the Transport Assessment Addendum.

The Motion analysis used in this request for advice takes the flows from the PBA document and applies them to the Phase 1 mitigation scheme, as a baseline position for comparison. This is considered to be reasonable. However, the AM and PM flows are taken from different mitigation scenarios so are not equivalent. AM flows (the accepted worst case) are taken from a run with the bus gate in place, whereas the PM flows are from a different scenario. This is apparent from the Baseline Flows for Heyford Road illustrated in Figures 3.2 and 3.3 of the Technical Note.

Output for the baseline case is different from the PBA analysis due to the revised intergreen matrix being used, as described above.

The second Motion analysis is modelled on the layout proposal as shown in drg. no. 1803047-17 Rev. B, with the Great Wolf Resort peak hour generated traffic being added to the flows.

Output from the two AM analyses are extracted from the Technical Note and shown below for convenience:

Approach	AM Peak	
	DoS	MMQ
B430 (south)	107.3%	107
B4030 (east)	106.7%	52
B430 (north)	75.0%	11
B4030 (west)	86.7%	5

Table 5.1 B430/B4030 Signalised Crossroad – 2026 Baseline with Heyford Park Phase 1 & 2

Approach	AM Peak	
	DoS	MMQ
B430 (south)	108.7%	117
B4030 (east)	107.8%	56
B430 (north) (ahead, left)	37.5%	9
B430 (north) (right)	75.0%	2
B4030 (west)	86.7%	5

Table 5.2 B430/B4030 Signalised Crossroads with Heyford Park Phase 1 & 2, Great Wolf and Mitigation

The comparative outputs show that, despite the expansion of the junction to include a left turn only lane from the northbound B430, the performance of the junction remains over the theoretical capacity and is marginally worse with the Great Wolf generated traffic and mitigation. The Degree of Saturation (DoS) increases by just over 1% on the B430 southbound and B4030 westbound (titled B4030 (east) in the Tables), whilst the Mean Maximum Queue (MMQ) increases by 9% and 8% respectively.

Given the results of the analysis, it is not considered that the proposed Great Wolf mitigation scheme will reliably provide a signalised junction that will alleviate the current severe congestion or will improve upon the consented Heyford Park mitigation scheme.

The proposed layout will necessitate a significant change to the facilities for pedestrians wishing to cross the B430. With the current arrangement, which is largely unaltered in the Heyford Park mitigation scheme, the informal crossing point is behind the stop line for northbound B430 traffic, which means that pedestrians may have to cross between vehicles in a queue (two lanes in the case of Heyford Park mitigation) of stationary vehicles. The proposed Great Wolf mitigation incorporates a pedestrian refuge at the centre of the junction, allowing pedestrians to cross in two stages. However, the waiting area on the east side footway is very narrow, meaning that any waiting pedestrians would be uncomfortably close to passing or turning vehicles, particularly HGVs. Furthermore, the footway to the north is even narrower as the kerblines are particularly close to the highway boundary.

It is appreciated that there is no identifiable pedestrian (or cyclist) crossing point that would accord with current standards. At this stage, OCC are neutral about replacing the existing crossing point with one that allows improved crossing opportunities but has constrained access on one side.

Motion have separately supplied a version of the Indicative Mitigation Works drawing (Rev. C) that is marked up to illustrate the areas of proposed widening over and above the Heyford Park scheme (see Appendix A). This shows further encroachment into the south-east verge

and the footway being positioned up against the boundary wall on the west side, with nearly all the grassed verge being removed on this side.

Whilst it is agreed that the proposed scheme falls entirely within the highway boundary, because of the widening which brings the carriageway closer to properties and reduces verges, the environmental impacts would need to be considered before such a scheme could be agreed or implemented. The scheme has potential impacts on air quality, noise and vibration, and heritage. Consequently, the scheme may not be considered to be deliverable if the environmental impacts are not acceptable.

Overall, OCC are unable to confirm that their previous objection to the full application has been resolved.

IV. Confirmation from OCC as to which approach they would prefer to adopt with regarding implementation or contribution towards works at the B430/ B4030 Middleton Stoney junction.

OCC are unable to confirm at present which approach would be preferable should the Great Wolf mitigation scheme go ahead.

Officer's Name: Roger Plater
Officer's Title: Transport Planner
Date: 08 September 2020

Appendix A

Drawing no. 1803047-17 Rev. C

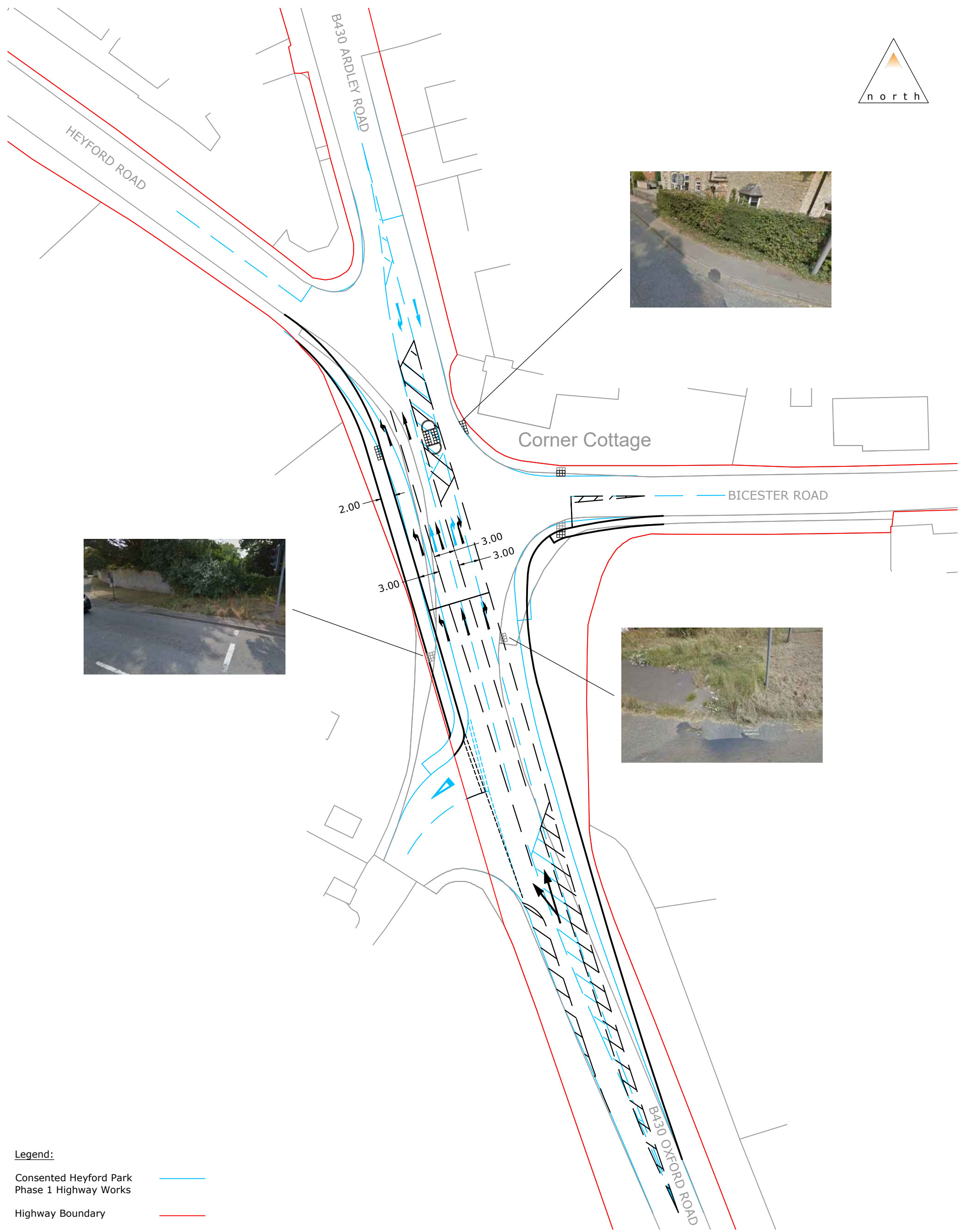
Indicative Mitigation Works showing Proposed Areas of Widening



<p>© Crown Copyright 2012. All rights reserved. Licence number 500643427</p>	 <p> <small>20 North Ewell Guildford Surrey GU1 4AJ T: 01483 831 300</small> </p> <p> <small>City of Works 1-2 Northside London SE1 6PS T: 020 8066 1306</small> </p> <p>www.motion.co.uk</p>	<p>Project: Great Wolf Resort, Bicester</p>	<p>Title: Indicative Mitigation Works</p>	<p>Scale: 1:500 (A3)</p> <p>Notes:</p>	<p>Drawing: 1803047-17</p>	<p>Revision: C</p>
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Appendix E

Proposed Mitigation Works – B430/B4030 Middleton Stoney



Legend:

- Consented Heyford Park Phase 1 Highway Works —
- Highway Boundary —



84 North Street
 Guildford
 Surrey
 GU1 4AU
 T: 01483 531 300

Cargo Works
 1-2 Hatfields
 London
 SE1 9PG
 T: 020 8065 5208

www.motion.co.uk

Project:
Great Wolf Resort, Bicester

Title:
Indicative Mitigation Works

Scale: 1:500 (@ A3)

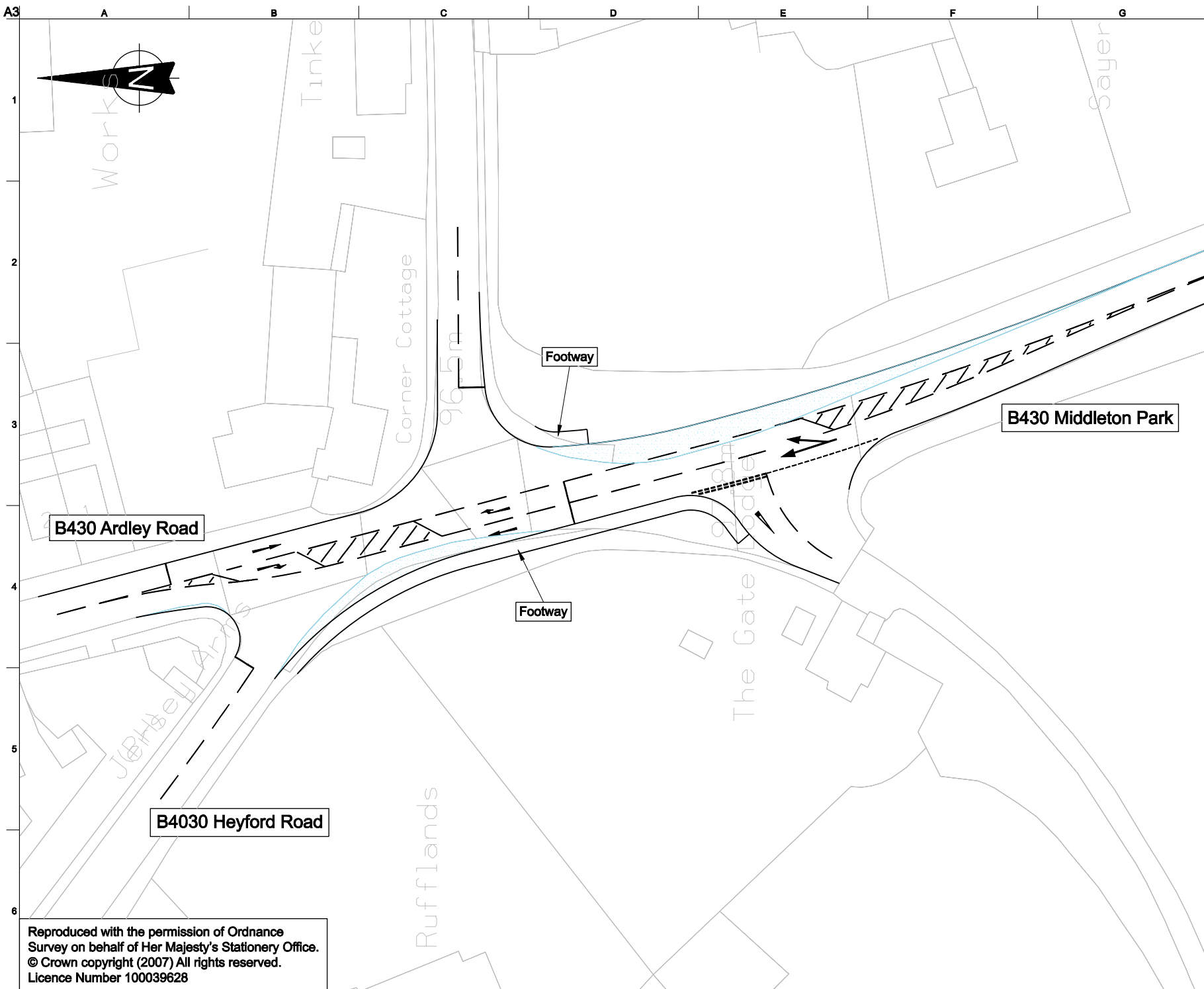
Notes:

Drawing:
1803047-17

Revision:
B

Appendix F

Approved Mitigation Works – B430/B4030 Middleton Stoney



Key:
 Areas of carriageway widening

01	09/08/07	NS	IGC	IGC
First Issue				
Issue	Date	By	Chkd	Appd

ARUP

The Arup Campus, Blythe Gate, Blythe Valley Park
 Solihull, West Midlands B90 8AE
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Client
North Oxfordshire Consortium

Job Title
**Heyford Park
 Transport Assessment**

Drawing Title
**Proposed Alterations to Junction
 Between B4030 and B430
 in Middleton Stoney**

Scale at A3 1:500

Plot ID

Drawing Status
Information

Job No	Drawing No	Issue
120669-00	Figure 35	01

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Appendix G

Letter to OCC – October 2020

Roger Plater
Oxfordshire County Council
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GU1 4AU
tel: 01483 531300
email: info@motion.co.uk

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Our ref: gwvice/1803047/DL

14 October 2020

Dear Roger,

Proposed Great Wolf Lodge, Land to the East of M40 and South of A4095, Chesterton, Bicester

Thank you for your pre-application advice dated 15th September 2020 in response to our Technical Note dated 4th September 2020. I note that an Appeal in relation to the refusal of planning permission has now been submitted to the Planning Inspectorate and Cherwell District Council (CDC) have been notified, as required.

Further to the response I would appreciate if I could seek clarification on matters in relation to the impacts of the development scheme on the B4360/B4030 junction in Middleton Stoney and the proposed mitigation scheme.

Our Technical Note provided an updated junction mitigation proposal, presented at Drawing 1803047-17, along with the additional design information, a Stage 1 Road Safety Audit (S1RSA) and additional junction capacity modelling. With reference to this information OCC's response includes the following:

"Given the results of the analysis it is not considered that the proposed Great Wolf mitigation scheme will reliably provide a signalised junction that will alleviate the current severe congestion or will improve upon the consented Heyford Park mitigation scheme."

As you are aware, in assessing the highway impacts of development it is necessary to have regard to the policies in the NPPF. The NPPF states at paragraph 108 (c) that it is "*significant impacts*" from the proposed development in question on the transport network in terms of capacity and congestion or on highway safety which need to be cost effectively mitigated and further states at paragraph 109 that development should only be prevented or refused on highways grounds if there would be "*an unacceptable impact on highway safety, or the residual cumulative impact on the road network would be severe*".

Continued...

You refer in your response to the existence already of severe congestion at that junction and you identify that this junction will be further impacted by the development of Heyford Park. Whilst you consider that the proposed Great Wolf mitigation scheme, as shown at Drawing 1803047-17, will not alleviate the existing congestion at the junction, nor do you consider that it will provide a significant improvement to existing traffic conditions in comparison with the consented Heyford Park mitigation scheme, these are not issues which the applicant is required to address under the NPPF for its development to be acceptable. The analysis, design information and S1RSA presented in our Technical Note, demonstrates that the proposed Great Wolf development and mitigation scheme itself will not cause any unacceptable impact on highway safety and it will not result in a residual cumulative impact on the road network that would be severe and therefore the proposals accord with paragraph 109 of the NPPF.

I note that OCC's response does not state that you consider the proposed development and mitigation will result in unacceptable impact on highway safety or result in a residual cumulative impact on the road network that would be severe. Therefore, my clear understanding of your response is OCC's position is that, with the proposed mitigation, the proposed Great Wolf development:

1. will not cause any unacceptable impact on highway safety; and,
2. will not result in a residual cumulative impact on the road network which would be severe.

In addition to providing highway capacity improvements at the junction, the proposed mitigation works do seek to provide an improvement to pedestrian safety at the junction. OCC's response acknowledges that pedestrians crossing the B430 are currently required to do so in a single crossing, without the benefit of a refuge island, and that on the northbound arm the existing crossing position is situated behind the northbound stopline resulting in pedestrians needing to cross between queueing vehicles.

The proposed mitigation scheme includes the provision of a new pedestrian refuge within the junction, allowing pedestrians to cross the B430 in two stages and without having to walk between queueing vehicles. OCC's response suggests that you are neutral about the changes to the pedestrian arrangements on the basis that, whilst the proposed mitigation improves crossing opportunities, there is a section of constrained footway width at the north-east corner of the junction, adjacent to the proposed crossing point.

However, I would draw your attention to the fact that this matter was considered as part of the S1RSA, and subsequent correspondence from the Safety Auditor, which was appended to our Technical Note. In this regard the Safety Auditor concludes that the existing crossing:

"is situated upstream of the traffic signal stop line, which is hazardous for pedestrians because it encourages them to cross between queueing vehicles and appears not to serve any meaningful desire line. The apparently low usage suggests that it could be removed without detriment to pedestrian safety"

Continued...

In comparison, when assessing the proposed mitigation scheme, the Safety Auditor concludes that it:

“will provide the following benefits:

- *It is more likely to be used by virtue of its location;*
- *It is safer due to the provision of a central refuge island;*
- *It does not encourage pedestrians to cross between queuing vehicles;*
- *It allows pedestrians to cross in two stages, negotiating different traffic streams separately and using gaps created by the signal stages; and,*
- *It affords greater visibility for pedestrians crossing east-west to the stop line of Bicester Road. “*

In reaching these conclusions the Safety Auditor considered the width of the footway in the north-west corner of the junction and concludes that:

“cutting back of verge overgrowth on the east side of the new pedestrian crossing; this could widen the footway from 0.85m to 1.25m. Cutting back the boundary hedge within the highway could potentially widen it further to approximately 1.4m. Whilst this remains below optimum (1.8-2.0m), the improvement to pedestrian safety and comfort, compared with the existing situation, would be substantial (whether the widening was to 1.25m or 1.4m). Please note that the Ordnance Survey mapping appears to show the highway boundary where the footway disappears beneath the verge overgrowth, whereas in reality the highway is wider (up to 1.4m, as described above)”

Therefore, it is my clear understanding that these proposed changes to the pedestrian crossing do provide a benefit to pedestrian facilities safety at the junction in comparison with the existing arrangements.

Your response refers to the potential for environmental impacts of the proposed scheme in terms of air quality, noise and vibration and heritage which are not matters for OCC. However, I would welcome confirmation of my understanding that if any such environmental impacts are acceptable, OCC agrees that there would be an improvement to pedestrian safety at this junction as a result of the proposed mitigation scheme for the reasons identified.

Continued...

Page 4

I would appreciate if you could review the above information and provide the requested confirmation on both matters and, in particular, let me know if my understanding is incorrect in any respect, given the importance of narrowing any issues in dispute in respect of the forthcoming appeal. If you have any queries, please let me know.

Yours sincerely

A handwritten signature in purple ink, appearing to read 'D. Lewis', with a stylized flourish at the end.

DAVID LEWIS
Regional Director
E dlewis@motion.co.uk

Appendix H

Email Correspondence from OCC – December 2020

David Lewis

From: Plater, Roger - Communities <Roger.Plater@Oxfordshire.gov.uk>
Sent: 22 December 2020 11:20
To: David Lewis
Cc: White, Joy - Communities; Peart, Timothy - Communities; DEVENNY Alan; Phil Bell
Subject: Great Wolf - B430/B4030 Middleton Stoney - Highway Safety and Signage

Dear David

I refer to your emails of 17th December and 18th December 2020 regarding the above application and seeking OCC's views on the matters of highway safety and advance direction signage respectively. We have responded to these two matters in turn below:

Highway Safety at B430 / B4030 Middleton Stoney Junction

Firstly, we would advise that Highway Safety is not a new matter for consideration at the B430 / B4030 Junction. OCC have had concerns over highway safety for some time and this resulted in us requesting a Stage 1 and 2 Road Safety audit of the proposals. We note that a Stage 1 Audit was undertaken and five "Problems" were identified by the safety audit.

The problems identified included the following:

Problem 1: Footway width could lead to pedestrians being struck by vehicles

- *'The footway width at this location is presently reduced by verge overgrowth and, to a lesser extent, the boundary hedge. Pedestrians waiting to cross would therefore necessarily stand close to the kerb, potentially leaving them vulnerable to a collision with a passing vehicle'*

Problem 2: Side impact collisions

- *'Northbound drivers approaching the junction may not be aware of the lane assignment and could make late lane changes, leading to side impact collisions'*

Problem 3: Risk of head-on collisions between right-turning vehicles.

- *'Drivers turning right into Middleton Park may inadvertently stray into the right turn lane for Bicester Road, leading to head-on collisions'*

Problem 4: Risk of collisions involving vehicles turning from an uncontrolled access into the controlled area.

- *'Drivers emerging from the private access may not know which traffic stream has priority (a green signal) and could collide with a vehicle passing through the junction'*

Problem 5: Risk of vehicles, cyclists and pedestrian colliding with street furniture.

- *'Street furniture and lighting details are not available to the Audit Team and it is acknowledged this will be a detailed design matter, for consideration at Stage 2 RSA. However, if street furniture is not mounted appropriately it could be struck by pedestrians, cyclists or vehicles'*

We note that Motion has previously indicated that the above matters can be addressed at Detailed design stage but we are concerned that there is very limited scope to address the above issues in a situation where the mitigation scheme is geometrically constrained.

In particularly, we are concerned that the proposed mitigation does nothing to address the existing footway width problems at the junction. Some of the footway widths are considerably below standard with widths of less than a metre in places. With the introduction of a new pedestrian refuge, pedestrians are encouraged to focus crossing movements at a specific point where the existing footway is at its narrowest. They are then expected to cross uncontrolled during intergreen periods in a situation where larger vehicles may be trying to clear the junction.

The submitted swept paths indicate that there will be instances where large vehicles over-sail the footway areas. In a situation where the footways are already sub-standard, we are concerned that the new layout will put pedestrians at a greater risk.

In relation to the geometry, we have now had a further opportunity to undertake a full review of the preliminary design against the DMRB and note that the design appears to fall short of standards in relation to taper lengths on the approach to the junction while we note that the preliminary design does not yet show the position of the signal poles and heads. We are concerned that the signal poles will be difficult to locate within such a tight geometry and may further reduce the pedestrian footway space that is available.

When the above concerns are taken into account, we are of the view that the proposed mitigation scheme is not sufficiently developed to remove our concerns and we believe that there are constraints that prevent the above concerns being addressed. We are therefore of the view that the development has an unacceptable impact on Highway Safety at the Middleton Stoney junction.

Advance Direction Signage at B430 / B4030 Middleton Stoney Junction

Your email of 18th December seeks comment on signage proposals intended to support the proposed B430 / B4030 Middleton Stoney mitigation scheme. We note that the proposal is to remove the existing HGV route sign and replace with an advance direction sign which would incorporate the HGV route sign. The sign would be positioned at the location of the existing HGV sign.

Drawing 1803047-SK13 indicates the location of the proposed sign and a plan view of the sign in position. We would note that a minimum clearance of 450mm will be required from the edge of the sign to the edge of the carriageway.

We would be of the view that the signage proposal appears to be acceptable in principle (subject to detailed design and taking into account signage proposals associated with the Heyford Park Phase 1 mitigation scheme) but we would reserve our position on signage in a situation where we do not accept the current general layout of the mitigation scheme.

We trust that the above comments clarify the position of OCC.

Kind regards

Roger

Roger Plater
Transport Planner, Transport Development Control
(Cherwell and West Oxfordshire)
Oxfordshire County Council
Mobile 07789 653049

From: David Lewis <dlewis@motion.co.uk>
Sent: 18 December 2020 16:46
To: Plater, Roger - Communities <Roger.Plater@Oxfordshire.gov.uk>
Cc: White, Joy - Communities <Joy.White@Oxfordshire.gov.uk>; Peart, Timothy - Communities <Timothy.Peart@Oxfordshire.gov.uk>; DEVENNY Alan <adevenny@systra.com>; Phil Bell <pbell@motion.co.uk>
Subject: Great Wolf - B430/4030 Middleton Stoney - Signage

Roger,

Within our previously submitted Technical Note dated 4 September 2020, which I attach for reference, we had indicated that dedicated lane advance direction signs could be installed on the northbound approach to the B430/B4030 Middleton Stoney junction to advise drivers the appropriate lane to utilise at the stopline.

We have further reviewed the potential signage and I attached drawings showing the location and detail of a dedicated lane advance direction sign at the junction. Drawing 1803047-SK13 indicates the proposed location of the sign in advance of the junction which would be situated in the position of an existing HGV route sign. To this extent the signage would replace an existing sign rather than being additional signage. The existing HGV route sign is shown at Drawing 1803047-01 and the proposed dedicated lane advance direction sign, incorporating the HGV route sign, is shown at Drawing 1803047-02.

I would appreciate if you could review the information attached and confirm agreement of the detail of the proposed signage as part of the proposed package of mitigation works at the junction.

If you have any queries, please let me know.

Regards
David

David Lewis | Regional Director
BSc(Hons) MSc MCIHT

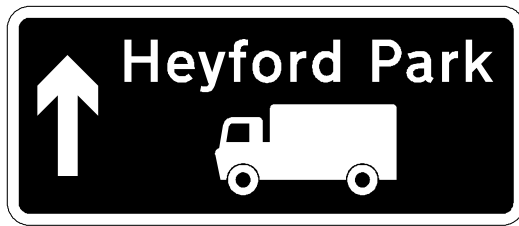
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Appendix I

Indicative Lane Designation Sign



Specification

Dimensions (mm):

Width: 1711, Height: 724

x-Height: 100

Area: 1.24 m²

Colours:

■ white on black

Material: BS EN 12899-1:2007

class: RA2

Illuminated: No

Client:

Project: Great Wolf Resort, Bicester

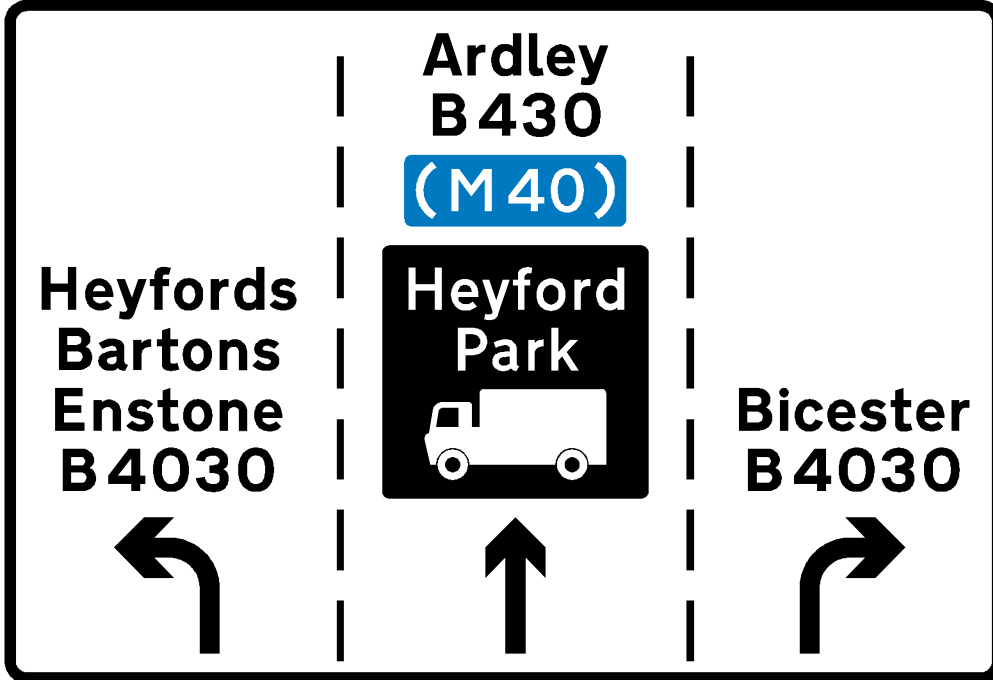
Scale 1:25

Date: December 2020

Title: Existing Sign

Drg. Number: 1803047-S1

Revision: -



Specification


Dimensions (mm):


Width: 3302, Height: 2261


x-Height: 100

Area: 7.47 m²

Colours:

 black on white

 white on blue

 white on black

Material: BS EN 12899-1:2007

class: RA2

Illuminated: No

Client:

Project: Great Wolf Resort, Bicester

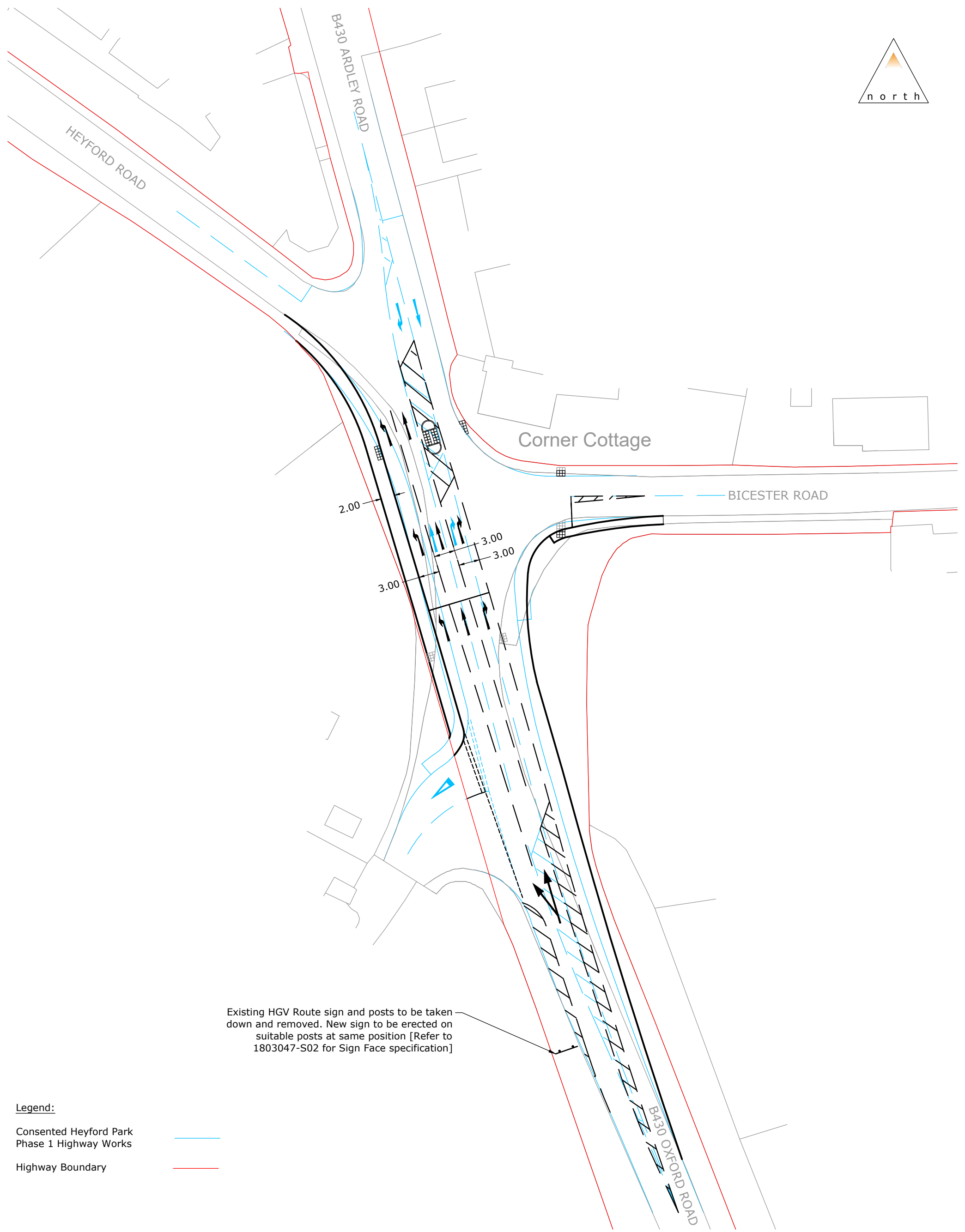
Scale 1:25

Date: December 2020

Title: Lane Dedication Sign

Drg. Number: 1803047-S2

Revision: -



Existing HGV Route sign and posts to be taken down and removed. New sign to be erected on suitable posts at same position [Refer to 1803047-S02 for Sign Face specification]

Legend:

- Consented Heyford Park Phase 1 Highway Works —
- Highway Boundary —

C:\Users\MatthewHands\Motion\StaffSite - TP Projects\gw\1803047\Drawings\1803047-SK13 [New Sign Location].dwg



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 GU1 4AU
 T: 01483 531 300

Cargo Works
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 London
 SE1 9PG
 T: 020 8065 5208

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Project:
 Great Wolf Resort, Bicester

Title:
 New Sign Location

Scale: 1:500 (@ A3)

Notes:

Drawing:
 1803047-SK13

Revision:
 -