

**Stafford Borough
Local Plan 2020 - 2040:
Preferred Options
Responses**

**Agents, Developers and
Landowners - Part 9**

Consultation Period: 24 October - 12 December 2022

Published: February 2023

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From: Stacey Green [REDACTED]
Sent: 12 December 2022 11:27
To: Strategic Planning Consultations
Cc: [REDACTED]
Subject: Stone / Stoford response to Stafford LP Preferred Options - email 1 of 2
Attachments: Enclosure 1 Red Line Plan.pdf; Response Form - South of Stone - JLL Stoford.pdf; Enclosure 3 Transport Note.pdf; Stoford - South Stone - Reps to Preferred Options (FINAL).pdf

Email 1 of 2

Dear Strategic Planning,

Please find attached our representations to the Stafford Borough Local Plan 2020-2040: Preferred Options, prepared by JLL on behalf of Stoford Properties Ltd in respect of land South of Stone Business Park.

We make representations to Policy numbers 1, 2, 7 and 12.

This email is split into 2 parts due to the file size.

Email 1 includes our completed response form, our representations, enclosure 1 – red line plan and enclosure 3 – BWB Transport Note.

Email 2 includes enclosure 2 – South Stone Business Park Vision Document.

Please can you acknowledge receipt of our submission. If you have any problems accessing the attached documents, please do not hesitate to contact me.

Best regards,

Stacey

[REDACTED]

Stacey Green MRTPI | Planning Manager

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STOFORD

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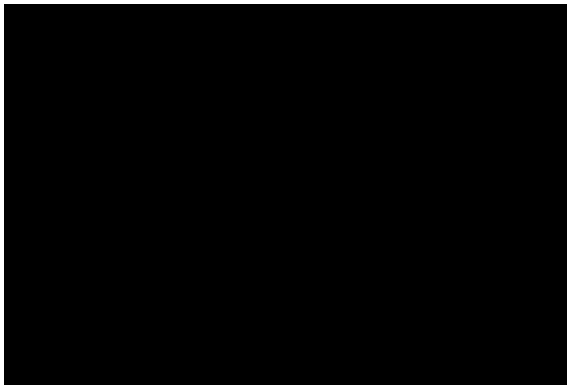
Tick the box that is relevant to you (required):

- Statutory Bodies and Stakeholders
- Agents and Developers
- Residents and General Public
- Prefer not to say

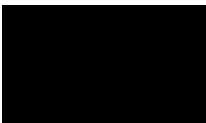
Organisation or Company Name (if applicable): Stoford Properties Ltd

Tick the box that is relevant to you:

(This is a non-mandatory question but helps us understand the demographic of our respondents.)



Do you want to be added to our Local Plan consultation database to be notified about future local plan updates?



Contents

The Local Plan Preferred Options includes the topics listed below.

Each topic has a series of standard questions in order for you to provide a response. You do not have to respond to each of the topics or answer all of the questions. The page numbers below relate to the page the topic starts in this consultation form.

- **Vision and Objectives** - page 5
- **Development Strategy and Climate Change Response** - page 6
- **Meecebrook Garden Community** - page 9
- **Site Allocation Policies** - page 10
- **Economy Policies** - page 14
- **Housing Policies** - page 16
- **Design and Infrastructure Policies** - page 18
- **Environment Policies** - page 19
- **Connections** - page 20
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All of the local plan documents and the Local Plan 2020-2040: Preferred Options document are available here: <https://www.staffordbc.gov.uk/local-plan>

Vision and Objectives

Q1. There are eight objectives for the local plan to achieve the vision of:

"A prosperous and attractive borough with strong communities."

Of the following objectives which 3 are the most important to you?

Please make your choice from the list of objectives below. (Maximum of 3 to be selected)

Local Plan Preferred Options document reference: Page 12

- Contribute to Stafford Borough being net zero carbon by ensuring that development mitigates and adapts to climate change and is future proof.
- To develop a high value, high skill, innovative and sustainable economy.
- To strengthen our town centres through a quality environment and flexible mix of uses.
- To deliver sustainable economic and housing growth to provide income and jobs.
- To deliver infrastructure led growth supported by accessible services and facilities.
- To provide an attractive place to live and work and support strong communities that promote health and wellbeing.
- To increase and enhance green and blue infrastructure in the borough and to enable greater access to it while improving the natural environment and biodiversity.
- To secure high-quality design.

Development Strategy and Climate Change Response

Q2. The development strategy and climate change response chapter includes the policies below.

Do you agree with each of the policies in this chapter?

Select Yes or No for each of the policies and then use the box below each policy to add additional comments.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: Pages 19 to 40

Policy 1. Development strategy (which includes the total number of houses and amount of employment land to be allocated and the Stafford and Stone settlement strategies)

No

Policy 1 Comments:

Please see attached representations to Policy 1, prepared by JLL on behalf of Stoford Properties Ltd in respect of land South of Stone Business Park

Policy 2. Settlement Hierarchy (Tier 1: Stafford, Tier 2: Stone, Tier 3: Meecebrook, Tier 4: Larger settlements, Tier 5: Smaller settlements)

No

Policy 2 Comments:

Please see attached representations to Policy 2, prepared by JLL on behalf of Stoford Properties Ltd in respect of land South of Stone Business Park

Policy 3. Development in the open countryside - general principles

Yes / No

Policy 3 Comments:

Policy 4. Climate change development requirements

Yes / No

Policy 4 Comments:

Policy 5. Green Belt

Yes / No

Policy 5 Comments

Policy 6. Neighbourhood plans

Yes / No

Policy 6 Comments:

Meecebrook Garden Community

Q3. The local plan proposes a new garden community called Meecebrook close to Cold Meece and Yarnfield. This new community is proposed to deliver housing, employment allocations, community facilities, including new schools, sport provision and health care facilities, retail and transport provision, which includes a new railway station on the West Coast Main Line, and high quality transport routes.

Do you agree with the proposed new garden community?

No

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: Pages 41 to 45

Comments:

Please see attached representations to Policy 7, prepared by JLL on behalf of Stoford Properties Ltd in respect of land South of Stone Business Park

Site Allocation Policies

Q4. The Stafford Borough Local Plan 2020 - 2040 proposes allocations for both housing and employment to meet the established identified need.

The site allocation policies chapter includes the policies below for housing and employment allocations.

Do you agree with the proposed allocations?

Select Yes or No for each of the following policies and then use the box below each policy to add additional comments.

Explain your reasoning and add any evidence to justify your response. Please provide details of alternative locations for housing and employment growth if you consider this is appropriate.

Ensure any comments relate to the policy comment box you are completing.

If you do want to submit a new site for consideration through the local plan process, we are still accepting sites through the Call for Site process, details are available here: <https://www.staffordbc.gov.uk/call-sites-including-brownfield-land-consultation>

Local Plan Preferred Options document reference: Pages 47 to 56 and appendix 2.

Policy 9. North of Stafford

Yes / No

Policy 9 Comments:

Policy 10. West of Stafford

Yes / No

Policy 10 Comments:

Policy 11. Stafford Station Gateway

Yes / No

Policy 11 Comments:

Policy 12. Other housing and employment land allocations.

(In your response, please specify which particular site you are referring to, if relevant.)

No

Policy 12 Comments:

Please see attached representations to Policy 12, prepared by JLL on behalf of Stoford Properties Ltd in respect of land South of Stone Business Park

Q5. The Stafford Borough Local Plan 2020 - 2040 proposes to allocate land for Local Green Space and Countryside Enhancement Areas throughout the borough.

The policies which relate to these proposals are listed below.

Do you agree with the proposed allocations?

Select yes or no for each of the policies and then use the box below each policy to add additional comments.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: Pages 56 to 59 and appendix 2.

Policy 13. Local Green Space

(In your response, please specify which particular site you are referring to, if relevant)

Yes / No

Policy 13 Comments:

Policy 14. Penk and Sow Countryside Enhancement Area (Stafford Town)

Yes / No

Policy 14 Comments:

Policy 15. Stone Countryside Enhancement Area

Yes / No

Policy 15 Comments:

Economy Policies

The Economy Policies chapter contains policies that seek to protect employment land and support economic growth within the Borough.

Q6. The local plan seeks to protect previously allocated and designated industrial land and support home working and small-scale employment uses.

The relevant policies are: 16, 17 and 18.

Do you agree with these policies?

Select Yes or No and then use the box to add additional comments. If referring to a specific policy, please include the policy number.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: pages 61 to 65

Comments:

Q7. The Stafford Borough Plan proposes policies around the town centres uses, agriculture and forestry development, tourism development and canals.

The relevant policies are: 19, 20, 21 and 22.

Do you agree with these policies?

Yes / No

Select Yes or No and then use the box below to add additional comments. If referring to a specific policy, please include the policy number.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: pages 65 to 71

Comments:

Housing Policies

The Housing Policies chapter contains policies that seek to provide for identified need across the borough and support homeowners.

Q8. The local plan proposed a policy (Policy 23) on affordable housing.

Do you agree with this policy?

Yes / No

Select yes or no and then use the box below to add additional comments.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: pages 74 to 76

Comments:

Q9. The local plan proposes a policy (Policy 30) to help meet identified local need for pitches for Gypsies and Travellers. There are 2 new proposed sites; one near Hopton and the other near Weston.

Do you agree with this policy?

Yes / No

Select yes or no and then use the box below to add additional comments. In your response, please specify which particular site you are referring to, if relevant.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: pages 84 to 86

Comments:

Q10. The local plan proposes policies around homes for life, rural exception sites, new rural dwellings, replacement dwellings, extension of dwellings, residential subdivision and conversion, housing mix and density, residential amenity and extension to the curtilage of a dwelling.

The relevant policies are: 24, 26, 27, 28, 29, 21, 31, 32 and 33.

Do you agree with these policies?

Yes / No

Select yes or no and then use the box below to add additional comments. If referring to a specific policy, please include the policy number.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: pages 73 to 89

Comments:

Design and Infrastructure Policies

Q11. The design and infrastructure chapter contains policies on urban design general principles, architectural and landscape design, infrastructure to support new development, electronic communications, protecting community facilities and renewable and low carbon energy.

The relevant policies are: 34, 25, 36, 37, 38, 39 and 40.

Do you agree with these policies?

Yes / No

Select yes or no and then use the box below to add additional comments. If referring to a specific policy, please include the policy number.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: Pages 91 to 99.

Comments:

Environment Policies

Q12. The environment policies chapter contains policies on the historic environment, flood risk, sustainable drainage, landscapes, Cannock Chase Area of Outstanding Natural Beauty (AONB), Green and blue infrastructure network, biodiversity, Special Areas of Conservation (SAC), Trees, Pollution and Air Quality.

The relevant policies are: 31, 42, 43, 44, 45, 46, 47, 48, 49, 50 and 51.

Do you agree with these policies?

Yes / No

Select yes or no and then use the box below to add additional comments. If referring to a specific policy, please include the policy number.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: Pages 101 to 119.

Comments:

Connections

Q13. The connections policies chapter contains policies on transport and parking standards.

The relevant policies are: 52 and 53

Do you agree with these policies?

Yes / No

Select yes or no and then use the box below to add additional comments. If referring to a specific policy, please include the policy number.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: Pages 121 to 124.

Comments:

Evidence Base

To support the Local Plan 2020-2040 an evidence base has been produced.

The evidence base is available to view on our website here:

www.staffordbc.gov.uk/new-lp-2020-2040-evidence-base

Q14. Have we considered all relevant studies and reports as part of our local plan?

Yes / No

Select yes or no and then use the box below to add additional comments.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Comments:

Q15. Do you think there is any further evidence required?

Yes / No

Select yes or no and then use the box below to add additional comments.

If you think additional evidence is needed, please state what you think should be added and explain your reasoning.

Ensure any comments relate to the policy comment box you are completing.

Comments:

General Comments

If you have any further comments to make on the Local Plan Preferred Options document and evidence base, please use the box below.

If you need further space to add comments, please add pages to the end of the consultation form and reference which question you are answering.

Thank you for taking the time to complete this consultation form.

Completed forms can be submitted by email to:
strategicplanningconsultations@staffordbc.gov.uk

Or returned via post to: Strategic Planning and Placemaking, Stafford Borough Council, Civic Centre, Riverside, Stafford, ST16 3AQ

The consultation closes at 12 noon on Monday 12 December 2022, comments received after this date may not be considered.



Stoford Properties Limited

Land South of Stone Business Park, Stone

Representations to the Stafford Borough Local Plan 2020 – 2040 Preferred Options

Introduction

1. These representations are made on behalf of Stoford Properties (Stoford). Stoford have an agreement with the [REDACTED], who are the sole owners of land south of Stone Business Park, Stone, to promote and develop their landholding for employment uses, particularly for industrial and warehouse units.
2. The extent of the land being prompted is edged red on the attached plan (**Enclosure No.1**). The land covers an area of 18.66 hectares (gross). The site is undesignated, but lies directly to the south of the settlement boundary of Stone and a Protected Employment Area (which covers the entirety of Stone Business Park).
3. No employment allocations are proposed for Stone, despite it being a Tier 2 settlement. Stoford consider this to be a serious omission and that this site is best placed to fill the void, being a logical extension to the existing Business Park.
4. The justification for the allocation of 18.66 hectares at this location is principally provided in JLL's response to Policy 12 – Other Housing and Employment Land Allocations. However, responses are made also in respect of:
 - Policy 1 – Development Strategy
 - Policy 2 – Settlement Hierarchy
 - Policy 7 – Meecebrook Site Allocation
5. These are dealt in turn below.

Response to Policy 1 – Development Strategy

Context

6. Policy 1 Part A states that provision will be made for at least 80 hectares of new employment land over the plan period – 2020 to 2040. Paragraph 1.5 explains that this is based on the EHDNA's core projection for employment growth in the Borough over the plan period plus a 50% uplift – i.e 78.56 hectares.
7. The Plan identifies approximately 150 hectares of new employment land for the plan period. This supply includes existing land commitments as at 31 March 2020 (90.32 hectares), existing allocations awaiting planning permission (18.2 hectares), new allocations (CREO 02



– 31.15 hectares – and SEI 01 – 5.6 hectares), and an allocation of 15 hectares at Meecebrook Garden Community and 1.56 hectares at Stafford Gateway (Table 2).

8. The surplus is justified in part by the Housing and Employment Land Numbers Topic Paper (Preferred Options Stage). This questions the labour demand model as an accurate and reliable method for projecting employment land needs. It considers this projection is suppressed and that other indicators – e.g. market signals – suggest a strong demand for industrial land, particularly to serve the warehouse sector, leaving potentially a much greater requirement for employment land than 80 hectares. For these reasons, the Topic Paper (in Box 2) states that it is the intention of the Council to update the EHDNA to test forecast employment land requirements.

Summary of Response

9. JLL agrees with the overall prognosis of the Topic Paper. The projected requirement of 80 hectares for the plan period is wholly insufficient. A substantially larger requirement would best represent current market conditions and provide the quantity and quality of land needed for Stafford to fulfil its objective of delivering sustainable economic growth and fostering inward investment. For this reason, JLL supports a full scale reassessment of the need for employment land for the Borough.
10. JLL recommends that the scope for this reassessment should include the following factors:-
 - Methodology, particularly the use of different models.
 - The most recent data on land completions within the Borough and reconsideration of this method as a preferred model.
 - Market signals, with particular respect to the continuing growth of the big box warehouse sector.
 - Absorption of identified supply.
 - Increasingly supportive guidance from Central Government in accommodating the freight and logistics sectors through the development plan-making process.
 - Regional evidence (i.e the West Midlands Strategic Employment Sites Study 2021) pointing to an urgent need for more strategic sites to be identified and the key locations for them to be situated (including Stafford and Stone).
11. These factors are explored in greater detail in turn below.

Specific Factors

Methodology

12. The Topic Paper questions the use of labour demand projections for determining future employment land needs. It considers there are question marks about its reliability.



13. Specifically, it considers that the link between labour and employment floor space for both industrial and warehouse sectors may not be necessarily the principal determining factor. Instead, productivity improvements in these sectors are more likely to be driven by automation and improving efficiency and scale (paragraphs 2.6 and 2.7).
14. Moreover, the Topic Paper (paragraph 2.8) identifies a stronger relationship between growth in GVA and growth in floor space. It notes that whilst there was a significant decline in employment in manufacturing in the Borough over the last 20 years, there has been growth in GVA and a corresponding increase in net completions of industrial land. Similarly, there has been high growth in GVA in the warehouse sector, high land completions, but a much more modest growth in job numbers.

Land Completions

15. For these reasons, paragraph 2.13 of the Topic Paper suggests that the past trend for completions in the industrial and warehouse sectors, coupled with market signals, are a better predictor of future land needs than the labour demand projections. We would agree with this.
16. In paragraph 2.14, the Topic Paper then suggests that it is unrealistic that past trends in take up will be replicated going forward. Further reasoning on this is given in paragraphs 4.30 to 4.40. These refer to the EHDNA, with reference to the restructuring of the economy towards business services and the potential for recycling old industrial land. It also refers to past trends data from 2002 to 2019 being influenced by high rates of completions pre-2008, which may not be replicable.
17. Since the EHDNA was produced (January 2020), the market for both industrial and warehouse buildings has changed dramatically, with demand outstripping supply. This is considered in greater detail below, but referenced also in the Topic Paper in paragraphs 4.33 to 4.38. Essentially, the growth in the economy, as far as it is has affected the development of employment land, has not been in the business services sector but in the industrial and warehouse sectors.
18. An obvious local example of this is the development by Stoford Properties of the Pets at Home warehouse of 670,000 sq ft (60,000 sq m) on a site of 29 hectares on land directly north of Redhill Business Park, Stafford. This large warehouse is close to being completed and will be operational from January 2023. Pets at Home's requirement could not be satisfied on existing commitments or allocations or vacant units within the Borough.
19. This site, as it is not yet completed, is not included as forming part of the 2020 – 2022 completions in Table 2 of the Preferred Options. Instead, it is included within the existing commitments of 108.52 hectares (as detailed in Appendix 7 – 20/33137/FUL). Once completed, the existing commitments will reduce to just under 80 hectares and net completions will increase to at least 23.5 hectares (i.e 29 - 5.5 = 23.5) over the three years from 2020 to 2023.

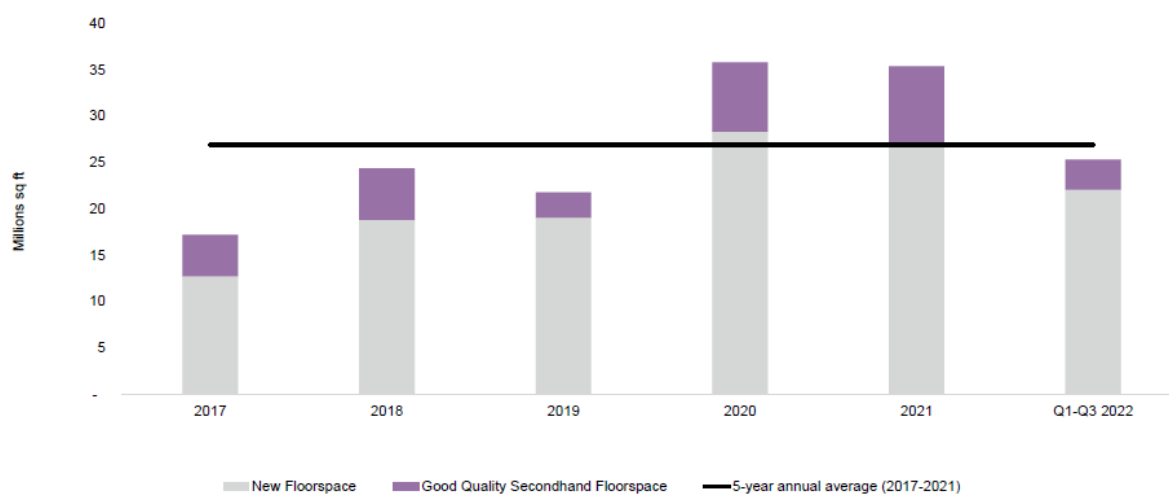


20. The EHDNA's projection based on the past trend completions methodology – which projected a gross requirement of 181.32 hectares for the plan period – was based on an analysis of take up in the Borough over the period from 2002/2003 to 2018/2019. Gross take-up per annum over this period equated to 8.24 hectares per annum, with net take up (taking into account annual average losses of 2.41 hectares per annum) running at 5.83 hectares per annum. This rate is less than the likely net rate over the last three years (2020 – 2023) – i.e. 7.83 hectares per annum (23.5 divided by 3).
21. It is to be noted also that the EHDNA referenced a gross take up of 10.98 hectares per annum experienced over the last five years of the monitoring period (2002/2003 to 2018/2019). This is higher than the overall gross annual average over the whole monitoring period (8.24 hectares per annum) and seems to refute the point made in the Topic Paper that the past trends data was overly influenced by higher rates of employment completions pre-2008.

Market Signals

22. The strength of the market for industrial and warehouse sectors, particularly the big box sector (i.e the units over 100,000 sq ft), over the last few years have been well chronicled. Essentially, demand levels have surged, albeit from already a high base. This is illustrated by the bar chart overleaf, which records take up nationally of big box units over the last five years, which is taken from JLL's latest quarterly summary (Q3) of the Big Box market.

Grade A take-up involving units of 100,000 sq ft +



23. The greater use of e-commerce has been a particular factor behind growth in demand over the last three years. However, there have been other factors, including: -
- Reshoring of industrial activities because of Covid-19 and Brexit.
 - 'Just in case' approach replacing the 'just in time' practices to ensure greater resilience to supply chain networks.
 - New industries emerging, such as electrical vehicle and component parts (e.g battery production).
 - Increasing ESG requirements for companies as part of the decarbonisation agenda.



24. The increase in demand has led to: -
- Significant increase in speculative development, illustrating the confidence of developers and investors.
 - Vacancy rates falling to an all-time low.
 - Dramatic increases in rents (16.3% over the last 12 months nationally).
 - Reduced voids and letting periods.
25. All these market signals represent an imbalance of demand over supply. This has led to an absorption rate of development land that is far quicker than the development plan making process can sustain. In certain locations, the level of consented development land is very short and with no discernible supply within the pipeline.
26. The market for big box for Stafford, and Staffordshire generally, is strong and representative of the wider national and regional picture. This is demonstrated by the take-up of big box units in Staffordshire over the last three years.

Table 1 – Take-up of Big Box Units in Staffordshire 2020 – 2022

Year	Number of Deals	Floor Space Transacted (Sq Ft)
2020	8	1,190,422
2021	9	2,528,809
2022 (to end of Q3)	7	1,584,169
Total	24	5,303,400

Source: JLL

27. The vast majority of these transactions represent new space – 20 out of a total of 24 units. This is a further illustration of the strength of the market.
28. Despite obvious economic headwinds, JLL remain confident that occupational demand will continue to remain high. We are receiving a healthy number of enquiries, with companies recognising they still need to invest in resilient and sustainable supply chains in order to meet the continuing, and often changing, needs of their customers.

Absorption of Supply

29. A good example of the resilience of the occupational market at a local level is the promotion of CRE 02 – Land to the North of Redhill – by our client, Stoford Properties. This site is situated directly to the west of the Pets at Home warehouse development by Stoford and has a gross area of 31.15 hectares. It is the principal new employment allocation for the Borough.
30. Despite not being formally marketed, Stoford are already in serious discussions with two operators for units of 370,000 sq ft and 450,000 sq ft. These two units, totalling 820,000 sq ft, will absorb the entirety of the allocation.



31. In addition, there are no substantial vacant industrial and warehouse units or available greenfield sites with planning permission in Stone Business Park, the principal industrial area serving Stone. Development opportunities are restricted to the recycling of existing industrial properties. A good example is the ongoing redevelopment of the data centre at the entrance to Stone Business Park, on a speculative basis, by PLP for a single unit of 340,000 sq ft.
32. The projected take-up of the whole of CRE 02 at Stafford and the current redevelopment of the data centre in Stone are further indicators that a projection based on past take-up rates – 181 hectares – is a more reasonable and realistic benchmark for assessing the land requirement for the plan period. Indeed, the current pace of development activity would suggest strongly it should be considered to be a minimum.

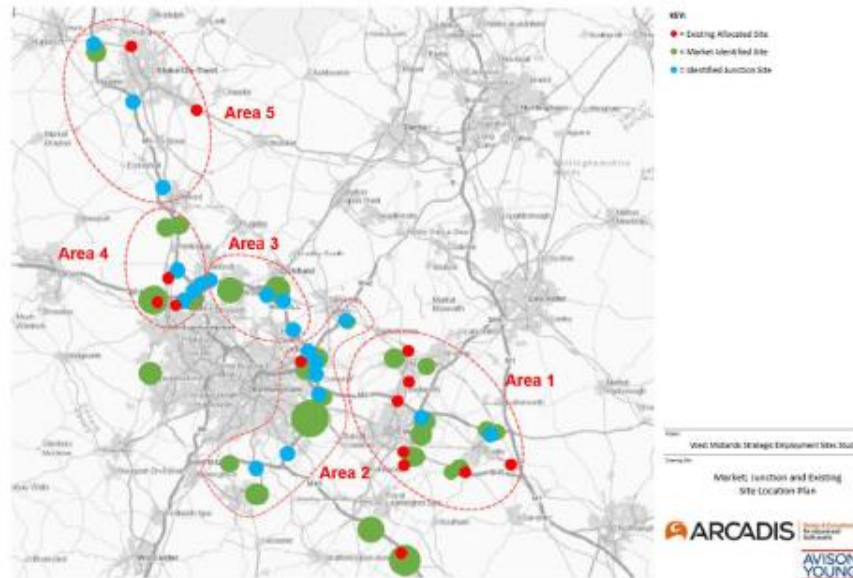
Government Guidance

33. National planning policy guidance issued by Central Government now recognises to a much greater extent the critical role that the logistics industry plays in terms of the wider economy. Recent changes made to the NPPF and PPG acknowledge the sector's contribution to local employment opportunities and its distinct locational requirements (i.e. at scale at suitably accessible locations).
34. Specific guidance in the PPG emphasises the importance of identifying gaps in employment land provision for different market sectors on both a quantitative and qualitative basis (paragraph 2a – 029-20190220). Paragraph 2a – 031-20190722 – provides more detailed guidance on how local planning authorities should assess need and allocate land for logistics. This refers to: -
 - Engagement with logistics developers.
 - Analysis of market signals (including trends on take-up).
 - Analysis of economic forecasts.
 - Engagement with LEPs (or their successor bodies).
35. In June this year, the DFT published *The Future of Freight* – a long term plan. One of the principal themes is Planning. It sets a goal of “*a planning system which fully recognises the needs of the freight and logistics sector now and in the future and empowers the relevant planning authority to plan for these needs*”. In addition, “*an increase in site allocations for freight and supply infrastructure being adopted in Local Plans to reflect the needs of the sector*” is provided as a future measure of success for the overall strategy for freight in the UK.

Regional Evidence Base

36. In May 2021, the West Midlands Strategic Employment Sites Study was published. This study was commissioned by Staffordshire County Council on behalf of the four principal LEPs to the West Midlands. It concluded that there was a limited supply of available, allocated and/or committed strategic employment sites across the West Midlands and a “urgent” need for additional sites to be brought forward.

37. The study identified five key locations for future strategic employment sites. These are shown on the plan below (extracted from the study).



38. Area 3 was discounted, leaving four key locations. This includes Area 5, entitled Stoke and North Staffordshire. This area takes in both Stafford and Stone.

Recommendation

39. We would advocate that the new assessment of employment land need is undertaken with these factors setting the principal scope. An assessment taking this as its basis is likely to lead to a significantly greater need for employment land, particularly to serve the logistics and freight sectors. This requirement, if projected properly, is likely to exceed supply and lead to the need to identify further sites or extensions to existing sites.

Response to Policy 2 – Settlement Hierarchy

40. The settlement hierarchy places Stafford Town as Tier 1 and Stone as Tier 2. These are the top two tiers in the hierarchy.
41. JLL agrees with the identification of this hierarchy. However, it considers the Preferred Options have disregarded this hierarchy in allocating employment land. Specifically, the Preferred Options allocate 15 hectares at Meecebrook Garden Community (Tier 3) and 5.6 hectares at Ladfordfields at Seighford (Tier 5), but allocate insufficient land at Stafford (CRE 02 – 31.15 hectares) and no land at all at Stone. The latter is considered a particular oversight given the obvious market attraction that Stone offers to both industrial and distribution sectors, as witnessed by the strength and depth of occupiers already operating there.



42. These oversights are considered further in our response to Policy 7 (Meecebrook) and Policy 12 (Other Housing and Employment Land Allocations).

Response to Policy 7 – Meecebrook Site Allocation

43. JLL does not object to the principle of the proposed development of a new Garden Community at Meecebrook. However, it holds deep reservations in respect of the following aspects: -
- Scale of employment land proposed.
 - Its deliverability on the timescales indicated.
 - Its preference over better located sites which can provide employment development opportunities over a much more certain timeline.
44. These concerns are explored in greater detail below.

Scale of Employment Land

45. Part C of Policy 7 states that the new settlement will include about 15 hectares of employment land within the plan period (2020 – 2040). It states further that beyond the plan period the overall total will be at least 30 hectares.
46. With employment land, it is a fundamental tenet that its scale is commensurate with its attributes. These attributes, particularly for large scale industry and warehousing, are influenced heavily by communications, particularly connections to the motorway and strategic road network.
47. The West Midlands Strategic Employment Site Study (2021), which was commissioned by Staffordshire County Council on behalf of the four main LEPs for the West Midlands, sets out the criteria for strategic employment sites, which it defines as greater than 25 hectares. The principal criterion is stated as “*Motorway/Trunk Road Access*”. It notes further that “*a site’s proximity to a motorway junction, or other strategic highways network route, being a key criterion adopted by site promoters and developers*”.
48. Meecebrook is not well located in respect of either the motorway or strategic road network. The nearest A road is the A519. This is not a strategic highway, providing local connections from Newport (Shropshire) to Eccleshall and to Newcastle-under-Lyme.
49. The A519 does provide a link to Junction 15 of the M6. However, this junction is at least 7 miles to the north, with the route passing through a number of villages. To the south, the A5013 provides a link to Junction 14 of the M6. However, this requires passage through the small market town of Eccleshall.



50. Neither route will be attractive to occupiers within the industrial and warehouse sectors. Moreover, Policy 7 does not set out or require any specific major highway improvements. Previous consideration of the Garden Community referred to a potential link to the M6 motorway. However, this is no longer identified amongst the infrastructure requirements referenced by Policy 7.
51. On this basis, JLL does not consider the proposed scale of employment development to be realistic given the site's characteristics. Instead, a much more limited offer is more likely to be suitable, with this serving just the needs of the new community.

Deliverability

52. JLL understands that it has been assumed that built development at Meecebrook Garden Community will commence from 2030. As such, none of the 15 hectares allocated for employment will come forward for another eight years.
53. Other representations made by Stoford (promoting housing on land directly to the east of the A34 north of Stafford) consider in greater detail the likelihood that the Garden Community will come forward for development on its proposed trajectory. In summary, Stoford conclude that this is most unlikely for a number of reasons. These are principally as follows: -
 - Lead-in times for housing.
 - Requirement for comprehensive development.
 - Infrastructure requirements.
 - Viability.
54. It is to be noted that Meecebrook Garden Community is in multi-ownership. Comprehensive development will require the co-ordination and agreement of all landowners. According to the Council's Local Plan and CIL Viability Assessment (paragraph 7.6), discussion with landowners has not reached an advanced stage and the willingness of all landowners to release land for development is not certain.
55. The infrastructure requirements are onerous. They include a new railway station on the West Coast Mainline (Part G). Again, we understand that consultation and discussions with the appropriate bodies (e.g Network Rail) are not advanced and there is no certainty that a new railway station serving the Garden Community would be feasible.
56. Part L of Policy 7 stipulates that development of the Garden Community can only commence once a route to funding and delivery has been identified for the railway station and other principal elements of infrastructure (including any necessary improvements to the strategic highway network). This stipulation ties, properly, the principal elements of the development (e.g housing and employment) with its necessary infrastructure. Given the



peripheral location of the proposed Garden Community – away from existing settlement and insufficient communications for its proposed scale – this is fundamental.

57. The extent of the necessary supporting infrastructure will also have a bearing on the viability of the overall proposed development. However, JLL understands that there is uncertainty about the scale of the cost of the necessary infrastructure. This is acknowledged by the Council's Local Plan and CIL Viability Assessment. Paragraph 7.5 confirms a lack of evidence and recognises it may be a limiting factor.
58. All these factors point to a proposed start date for development of the principal elements (e.g housing and employment) of 2030 being very optimistic. There are too many unknown or uncertain factors to engage with and resolve.
59. As such, JLL considers and recommends that other employment land should be allocated in order to provide resilience to the Plan.

Alternative Locations

60. JLL considers that there are better alternative locations which should be preferred for allocation for employment use. Principally, these are: -
 - An extension to CRE 02 – land to the north of Redhill Business Park, Stafford.
 - Land south of Stone Business Park, Stone.
61. Both these sites are being promoted by our client, Stoford. The principal grounds for their allocation are provided in the respective responses to Policy 12 (see below in respect of the proposed allocation of 18.66 hectares south of Stone Business Park, Stone). However, there are strong reasons why both should be preferred over the proposed allocation of 30 hectares (15 hectares within the plan period) at Meecebrook Garden Community. These are:-
 - Both sites are located at settlements at a higher tier in the settlement hierarchy – Stafford (Tier 1) and Stone (Tier 2).
 - Both sites are better located in market terms, with direct connections to the A34.
 - Both sites are controlled by one party (Stoford), with direct recent experience of implementing large scale employment development in the Borough (i.e Pets at Home warehouse at Stafford and the JLR Vehicle Storage Facility at Stone).
 - Both sites can be delivered in a reasonably short timescale and without the need for significant infrastructure improvements.



Response to Policy 12 – Other Housing and Employment Land Allocations

62. Stoford object to Policy 12 on the grounds that no new employment land has been allocated to Stone, a Tier 2 settlement. Stoford consider further that this omission can be rectified by the allocation of 18.66 hectares (gross) on land they are promoting directly south of Stone Business Park.
63. Stoford have produced a Vision Document for the site. This forms **Enclosure No.2**. This sets out the key development attributes of the site and provides supporting information on a number of technical issues.
64. The Vision Document is supported by a Transport Note by BWB, consulting transport engineers. This note forms **Enclosure No.3**.
65. National Planning Policy Guidance sets three tests for consideration of the allocation of land for sustainable development. These are: -
- Suitability.
 - Availability.
 - Achievability (i.e being deliverable).
66. JLL considers that the extended site passes these tests for the following principal reasons:-
- It is extremely well located to meet the identified needs for employment development for the Borough, particularly for large floorplate industrial and warehouse buildings.
 - It is located on the edge of Stone, the second largest settlement in the Borough and a good source of labour.
 - It is situated directly adjacent to the prime industrial and distribution park serving Stone (i.e Stone Business Park).
 - It enjoys direct access to the A34 and has excellent accessibility to Junctions 14 and 15 of the M6 motorway.
 - Access to the site could be achieved by a new signal-controlled junction on the A34, which would operate comfortably within capacity.
 - The site would be accessible by a range of transport modes including walking, cycling and public transport.
 - The site is located on an established bus route with connections to Stone railway station, the town centre and Stafford.
 - Additional traffic flows would be minimal compared to baseline flows and no significant highways impacts would arise from the proposals.

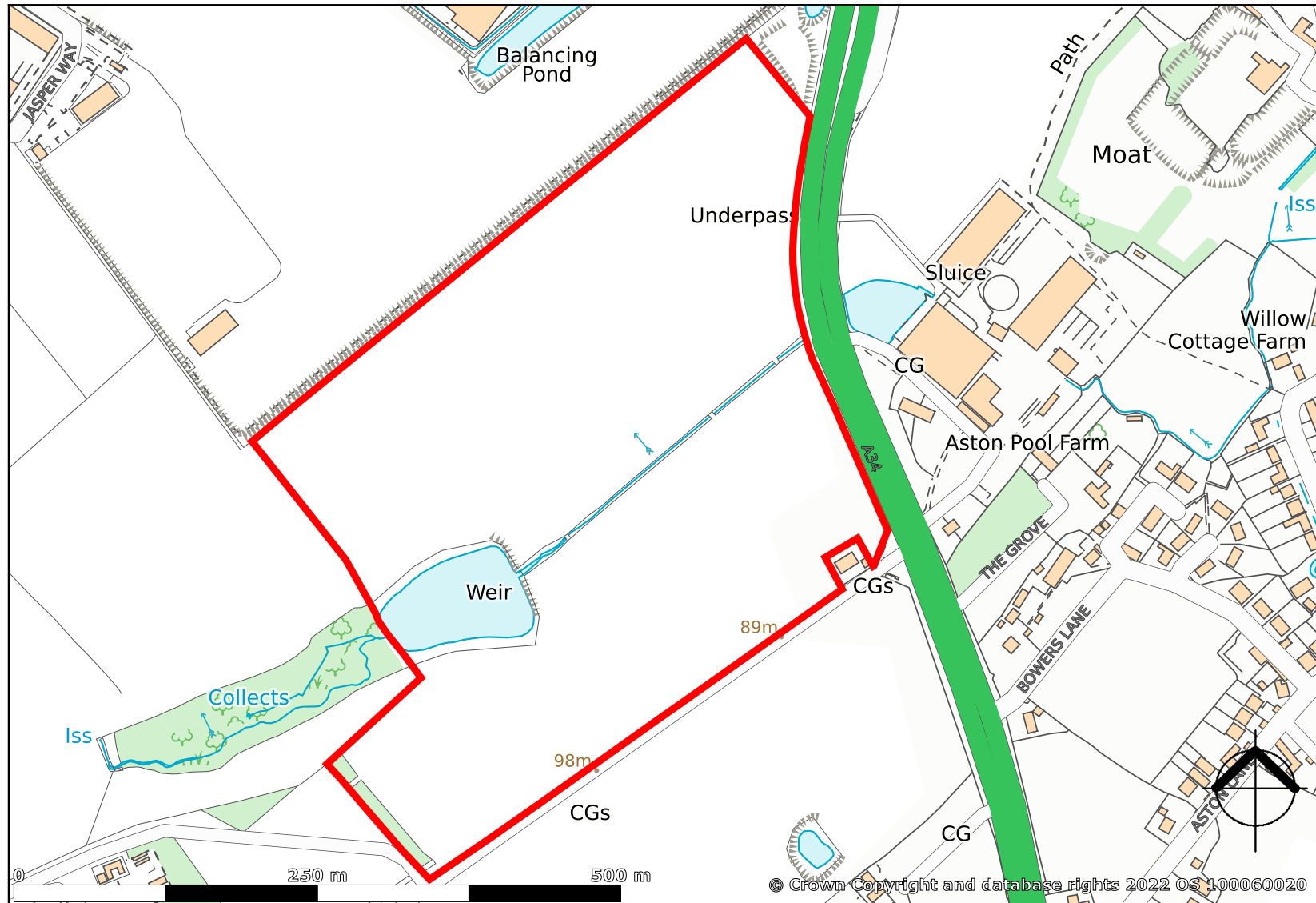


- There are no landscape based policy constraints, with the landscape character to the site heavily influenced already by built development in Stone Business Park to the north.
 - The landscape to the west of the site could be impacted by the proposed construction of HS2 which skirts the west of the town.
 - There is little ecological value in the site, with the site being used intensely for agriculture, apart from a Site of Biological Importance situated in the western edge of the site. This would be retained and enhanced by the development proposals.
 - There are no heritage assets within the site or in the vicinity to the west of the A34.
 - The extended site falls outside of the flood zone, as depicted by the EA Flood Map.
 - Full utility connections are available.
 - The site is in single ownership, with Stoford charged by the owners to promote and develop the land.
 - The site has potential to accommodate a development of 38,000 sq m (400,000 sq ft) on a net developable area of 9.4 hectares, providing a range of unit sizes from 5,000 sq m (54,000 sq ft) to 13,000 sq m (140,000 sq ft).
 - This leaves approximately 8 hectares for strategic blue and green infrastructure and space for Biodiversity Net Gain (BNG), accounting for 44% of the total gross site area.
 - Stoford are in position to develop the site early in the plan period.
67. Overall, the proposed development represents a logical expansion of Stone Business Park and the best available site to meet the further needs of Stone, a Tier 2 settlement. As referred to above, we consider the lack of any allocated employment land serving Stone to be an omission which should be rectified at the next stage of the development plan-making process.
68. On this basis, JLL recommends that Part B of Policy 12 should be amended so as to add Land south of Stone Business Park – 18.66 hectares – and the Proposals Map are revised accordingly.

PJL

JLL

12 December 2022



created on **edozo**

Plotted Scale - 1:5,000

This plan is published for the convenience of identification only and although believed to be correct is not guaranteed and it does not form any part of any contract.

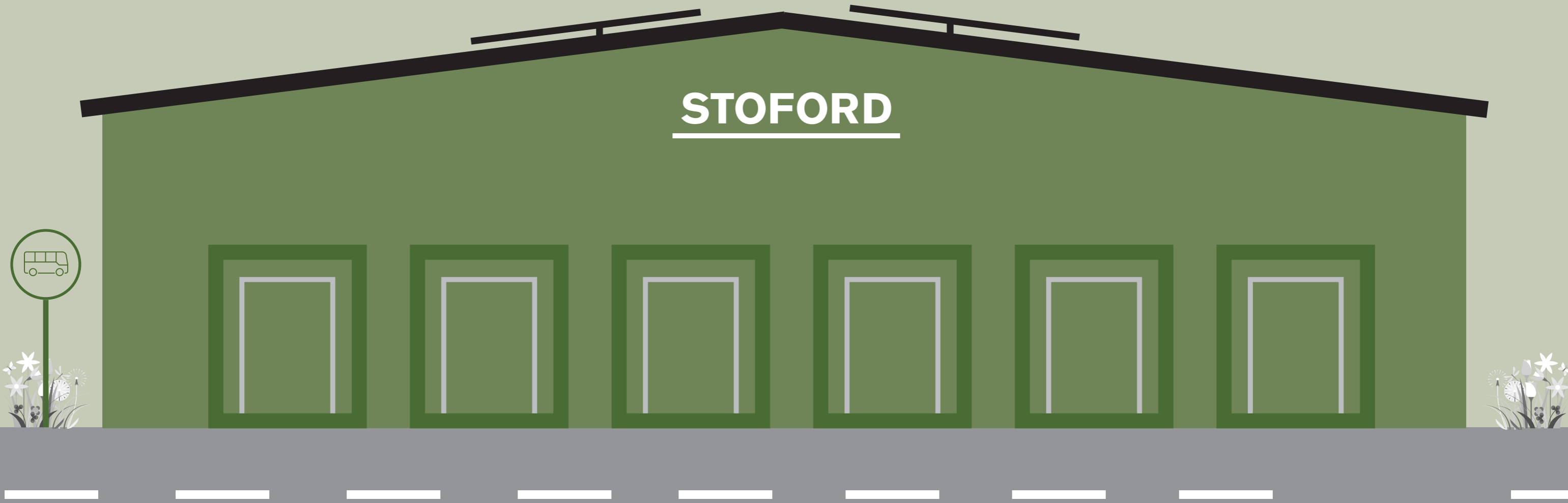


South Stone Business Park

Investing in Staffordshire -

Delivering Economic Growth

December 2022



1

EXECUTIVE SUMMARY

THE VISION

To deliver a **high quality, sustainable** and **well-connected development** in Stone that will address **the critical need for employment space** at Stone, in conjunction with the delivery of **significant social and environmental benefits**.



KEY DEVELOPMENT ATTRIBUTES

MEETING NEED

Stoford propose an 18.66 hectare (46.10 acres) employment development at South Stone Business Park to meet the market demand for industrial, storage and distribution development on the strategic road network, close to the M6 motorway. The development can provide circa 400,000 square feet (c.38,000 square metres) of Use Class B8 floorspace, with ancillary offices, across a mix of small and medium sized units to meet local need.

There is an opportunity to provide for existing businesses within Stone Business Park to expand or relocate, alongside the opportunity to attract and accommodate new businesses and operators into the area.

AVAILABLE NOW

The Site being promoted by Stoford is available now, and the landowner is working collaboratively with us to bring forward the proposals.

EARLY DELIVERY

Stoford are a trusted development partner and are committed to the early delivery of South Stone Business Park. The Site's inherent attributes, with direct access available onto the A34 mean we can be confident that the Site can be delivered early in the Plan period. With regards to earthworks, preliminary work confirms that a commercially viable and sensitive cut and fill balance is feasible.

CONNECTIVITY

South Stone Business Park is located on the edge of the sustainable, principal town of Stone which benefits from a large range of services and facilities (see section 2) including a railway station. There is a footpath / cycleway along the A34, opposite the site's entrance which connects the site to the amenities of Stone, the railway station and bus stops, which are a stones throw from the site on the A34. There is the opportunity to provide an integrated footpath from the site to the Public Right of Way which runs along the site's southern boundary.

UNCONSTRAINED

The site is free of any restrictive designations. The site is outside of the Green Belt and the flood zone. The nearest heritage assets are located far beyond the site boundary to the east. There are some existing trees and hedges, which will be retained as much as possible. The landowner has additional land to the south and west of the site should more land be required now or in the future.

LABOUR SUPPLY




The site is well connected by sustainable transport to the local labour market of Stone.

JOBS

South Stone Business Park will deliver exceptional economic benefits for Stafford Borough with the creation of around 500 full time equivalent jobs on-site during the operational phase and further jobs during construction.

2

THE SITE

-  Site Boundaries
-  Potential Future Expansion Land
-  Railway
-  Motorway
-  Major Road
-  Minor Road
-  PROW
-  Bus Stops
-  Shopping Units

Context Plan



Boundary based on O/S Data and NOT confirmed as the Legal Boundary

SOUTH STONE BUSINESS PARK

South Stone Business Park ('the Site') provides an exceptional opportunity of 18ha to expand Stone's business park and deliver much needed employment floorspace outside of the Green Belt, in response to strong market demand, in Stafford borough's second largest town. The development of the site can provide 400,000 square feet (c.38,000 square metres) of floorspace for class B8 development with ancillary offices. The site is available now, unconstrained, and fully deliverable.

The site has excellent transport links with direct access on to the A34, within 5 miles of junction 14 of the M6 motorway and Stone railway station on the West Coast Mainline, both of which provide the important linkages with the West Midlands and north Staffordshire conurbations. There is a shared footway/cycleway along the eastern edge of the A34 which connects Stone with Stafford and forms part of Route 5 of the National Cycle Network. Public transport is also readily available with bus stops close to the site on the A34 and Stone railway station within 2.2 miles (10 minutes by bike).

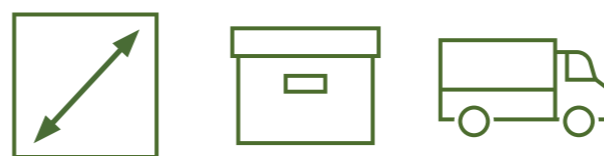
The site benefits from a large pool of potential labour and the floorspace can be delivered in a responsive manner early in the plan period.

The scale of the opportunity reflects the hierarchical status of the Stone, as recognised by the Council (being second only to Stafford) and is commensurate to the amount of employment land that was previously allocated to the town though The Plan for Stafford Borough, 2014.

Our approach to this site is underpinned by a commitment to design and place, connectivity and sustainability. In section 6 we demonstrate how our proposals for South Stone Business Park are suitable, deliverable and do not adversely impact on Stone's natural or built environment.



Excellent Transport Links



400,000 sqft floorspace for B8 use



Site available now. Unconstrained, fully deliverable



View of JLR storage depot and RKW Distribution Centre on Stone Business Park adjacent to the site



On-site fishing pond being retained



View of RKW Distribution Centre on Stone Business Park adjacent the site



View of bus stop on eastern side of A34 adjacent the proposed site entrance

3

STOFORD

An Introduction

WHO WE ARE

Stoford are one of the UK's leading property developers specialising in occupier led development, and a trusted developer for local authorities seeking high quality and sustainable employment growth. We have developed in excess of 17m square feet of employment floorspace throughout the UK, including buildings for corporate offices, manufacturing and the logistics sector.

Stoford have a close working relationship with Stafford Borough Council in respect of delivering major employment development. We are nearing completion of the BREEAM excellent, 670,348 sq ft Pets at Home distribution centre on the Stafford North Business Park, and recently delivered a 21 hectare vehicle storage depot for Jaguar Land Rover at Stone Business Park. In 2011 we also delivered BREEAM excellent offices in the heart of Stafford for Staffordshire County Council.

We would welcome the opportunity to continue to work with Stafford Borough Council, alongside key stakeholders and local communities to deliver superior employment development south of Stone.

Our experience of the market gives us unrivalled knowledge of the latest occupier requirements, and we are proud to have been trusted to develop for some of the UK's largest financial institutions.



pets at home Stafford North Business Park
Stafford
670,348 sq ft



JAGUAR **LAND ROVER** Stone
Staffordshire
6,500 parking spaces



WORCESTER SIX CASE STUDY

KEY DELIVERY EXPERIENCE

Stoford are experienced in delivering multi-unit business parks such as Worcester Six. We would draw upon this experience to deliver our proposals at Stone.

Worcester Six Business Park (29ha), located at Junction 6 of the M5 in Worcester demonstrates Stoford's ability to deliver a superior business park with excellent building and environmental quality, and nurturing of high-value businesses. Worcester Six is currently home to 9 businesses with around 600 employees, many of whom are local. The average employee density at Worcester Six is 1 employee per 145sqm with 51% of roles being managerial, skilled, engineering, IT or office based. The occupiers at Worcester Six support local, UK and international markets and supply chains.

Worcester Six sets a benchmark for the company's development aspirations at South Stone. It is a location for both small and medium freehold businesses across a range of business activities.



+1.4 hectares marshy grassland created alongside stream & flood alleviation pond



527m poor species hedgerow had to be removed, and replaced with 3000m of new (species rich) hedgerow planting



+250 new standard trees and +3 hectares of new woodland and shrub planting



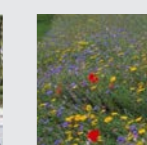
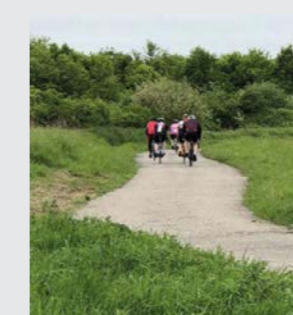
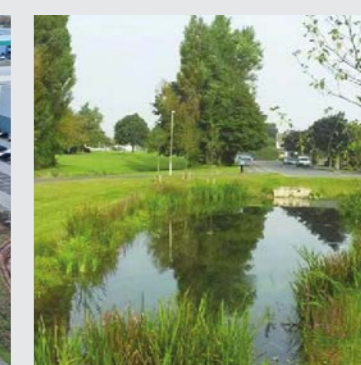
100% retention: woodland, wet & rough grassland and species rich hedgerow



16.57 hectares (40%) Green Infrastructure apportionment



5000m² of wildflower seeding & native bulb planting



4

LOCAL PLAN &
CONTEXT FOR
EMPLOYMENT
GROWTHALLOCATION OF THE SITE
WOULD ASSIST IN MEETING
THE UNMET NEED FOR
EMPLOYMENT LAND IN
A HIGHLY SUSTAINABLE
LOCATION

The emerging Local Plan provides at least 80 hectares of employment land across Stafford Borough (2020 – 2040). No new employment sites are proposed at Stone, despite its status as the second principal town and main provider of services, facilities, employment and transport links.

EMPLOYMENT LAND
REQUIREMENT

As set out in our representations the projected employment requirement of 80 hectares for the plan period is wholly insufficient. A substantially larger requirement would best represent current market conditions and provide the quantity and quality of land needed for Stafford to fulfil its objective of delivering sustainable economic growth and fostering inward investment.

We consider a full-scale reassessment of the need for employment land for the Borough is required, including the following factors:

-  **Methodology, particularly the use of different models.**
-  **The most recent data on land completions within the Borough and reconsideration of this method as a preferred model.**
-  **Market signals, with particular respect to the continuing growth of the big box warehouse sector.**
-  **Absorption of identified supply.**
-  **Increasingly supportive guidance from Central Government in accommodating the freight and logistics sectors through the development plan-making process.**
-  **Regional evidence (i.e. the West Midlands Strategic Employment Sites Study 2021) pointing to an urgent need for more strategic sites to be identified and the key locations for them to be situated (including Stone).**

If these factors were included, it is likely there would be a significantly greater need for employment land, particularly to serve the logistics and freight sectors. This requirement, if projected properly, is likely to exceed supply and lead to the need to identify further sites or extensions to existing sites, including those at Stone.

ECONOMIC STRATEGY FOR STONE

The Local Plan's economic strategy for Stone (page 31) states that *"Employment growth and the promotion of economic diversification will be provided through the completion of existing employment land commitments"*. This is wholly inadequate since the only existing employment land commitment in Stone, off Diamond Way (16/23975/FUL) relates to only 1.2ha, is halfway through completion and provides for 18 small units totalling 2,880sqm of floorspace (uses E,B2, B8). A recent decision (21/33758/FUL) on the site, which approves amended details for drainage and external lighting demonstrates the commitment to complete this development. Given the likelihood of this scheme to be complete in 2024, this leaves a huge 16 year hiatus of no planned employment growth in Stone.

The Local Plan Preferred Options does not recognise the importance of the logistics and freight sectors or respond appropriately to its specific locational requirements with a failure to provide any new employment land in Stone. Stone, by the Council's own admission is highly sustainable, and evidently attractive to the market, with no substantial vacant industrial and warehouse units or available greenfield sites with planning permission in Stone Business Park. Development opportunities are restricted to the recycling of existing industrial properties.

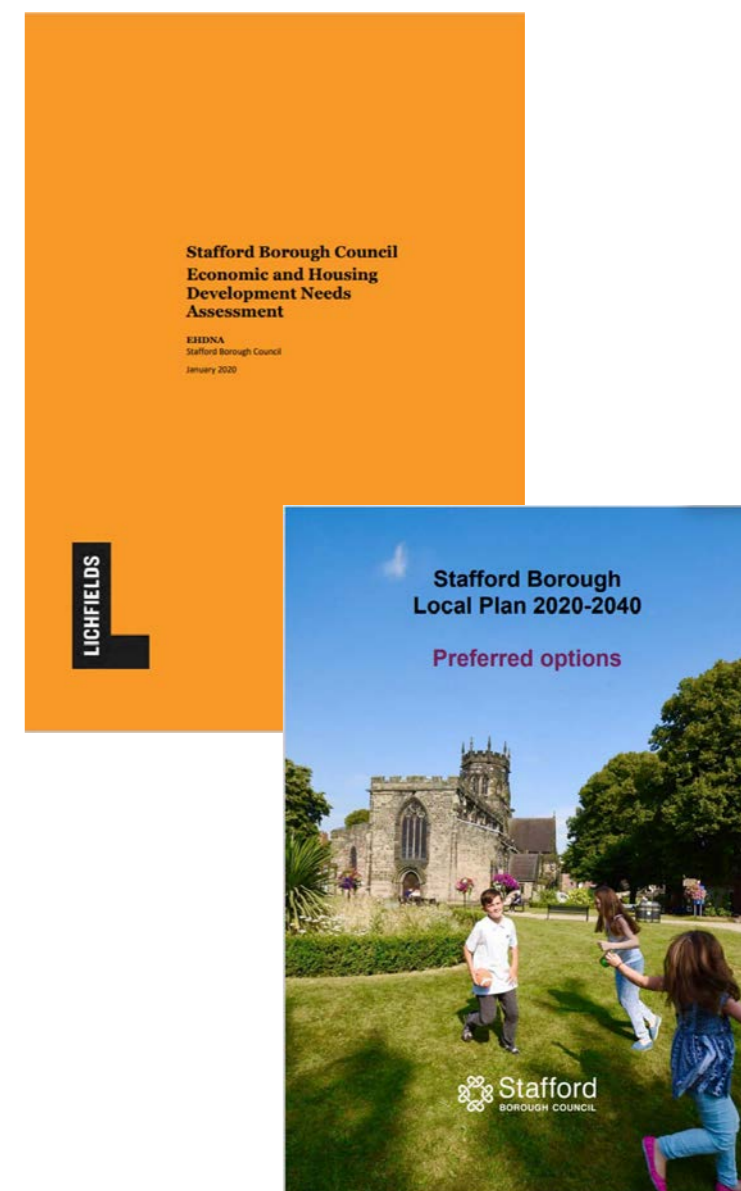
A good example is the ongoing redevelopment of the data centre at the entrance to Stone Business Park, on a speculative basis, by PLP for a single unit of 340,000sqft.

The locational advantages of our site on the main strategic network readily surpass those at Meecebrook, who's ability to deliver housing and employment at the rate envisaged by the Plan is in doubt. South Stone Business Park can deliver early in the Plan period.

Despite the Council's acknowledgement that *"Stafford and Stone are the borough's main centres for employment and facilities and benefit from the most extensive public transport services"* (para 1.1 of Preferred Options Local Plan), only one employment site is allocated at Stafford and none at Stone. The only other allocations of new employment land are made at Meecebrook and Seighford which are remote and poorly served by public transport in comparison.




Thus, the plan fails to meet its own vision *"To deliver infrastructure led growth supported by accessible services and facilities"* and does not contribute positively to reducing climate change.

Allocation of South Stone Business Park for employment development would assist in meeting the unmet need for employment land in a highly sustainable location that is attractive to the market.



5

SURROUNDINGS

-  Site Boundaries
-  Potential Future Expansion Land
-  Railway
-  Motorway
-  Major Road
-  Minor Road
-  PROW
-  Bus Stops
-  Shopping Units

Context Plan



AMENITIES

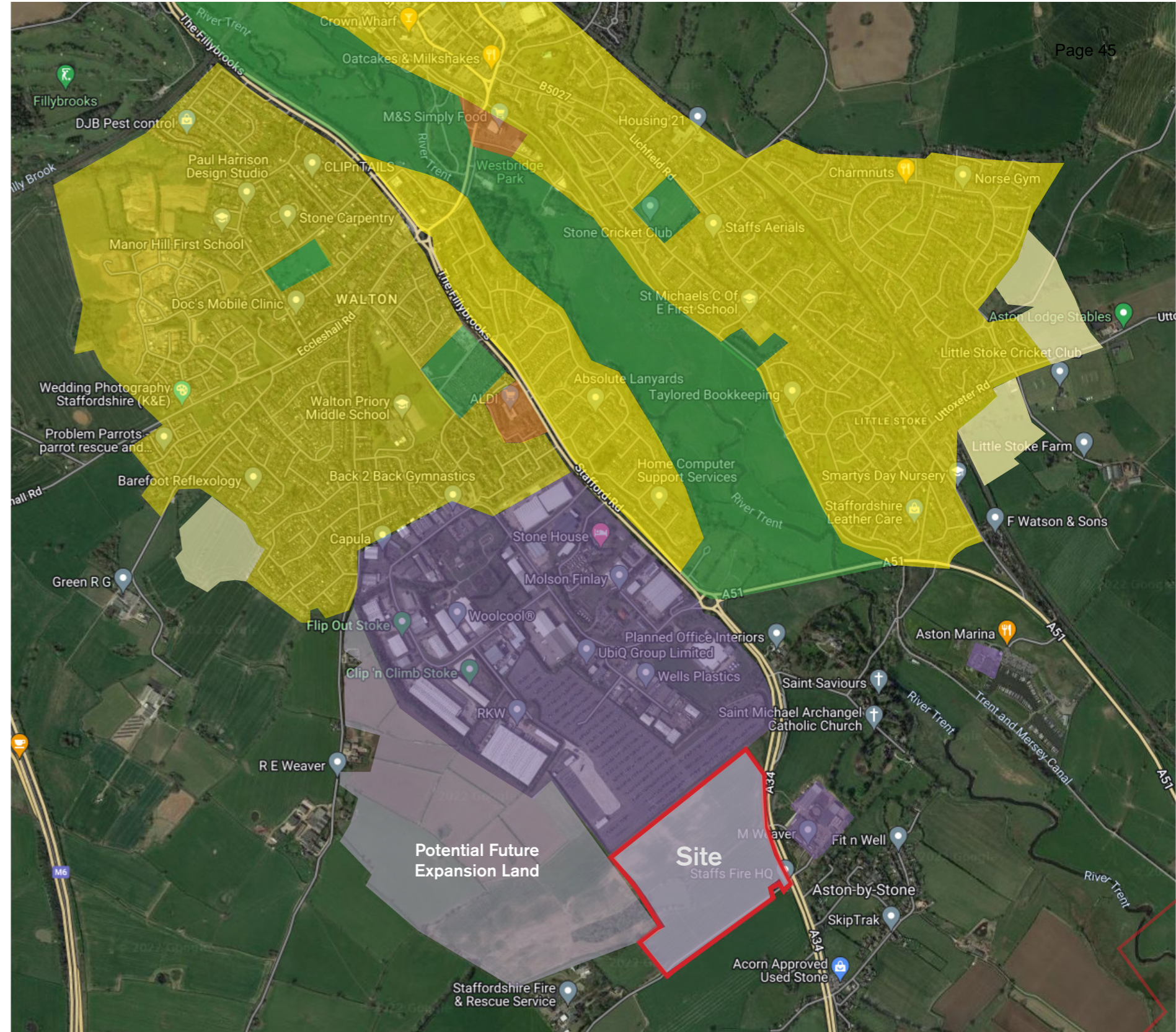
South Stone Business Park is strategically located to the south of Stone's existing business park, within easy reach of the town's services, facilities and transport links. There is an Aldi supermarket less than a mile from the site and Stone Railway Station within 2.5 miles, both of which are accessible via a footpath / cycleway which runs alongside the A34. The route is largely flat. The site offers direct access on the A34, which benefits from frequent bus services to Stafford and Stoke on Trent. Bus stops are located along the A34 close to the site entrance. The M6 motorway is less than 5 miles from the site.

LAND USE

The land use plan shows how our employment site would sit well alongside Stone's existing employment land and constitute a logical, southern extension to the town, which comprises varied and diverse uses.

HS2

HS2 will be located approximately 1,000m west of the site, as detailed in Section 6.



Land Use Plan

- | | | | |
|---|-----------------------------|---|----------------------|
|  | Site Boundary |  | Existing Employment |
|  | Existing Residential |  | Green Infrastructure |
|  | Proposed Housing Allocation |  | Local Amenities |

6

SITE SUITABILITY

Legend:

Site Area
46.10 Ac / 18.66 Ha

Net Developable
23.18 Ac / 9.38 Ha

Potential Connection Links

PROW

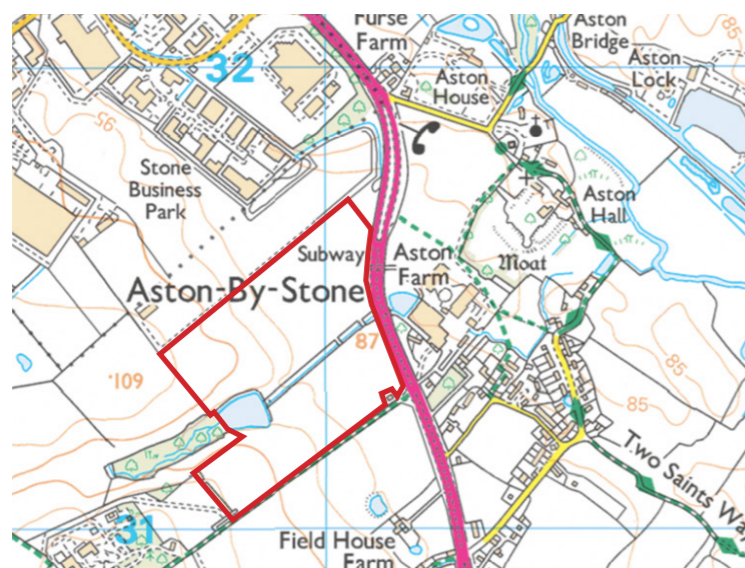
Roads



Phase 1 Parameter Plan

TOPOGRAPHY

The eastern parts of the site are flat. There is a relatively gentle rise towards the western parts of the site which mirrors the land form across Stone's existing Business Park. The westernmost buildings in Stone's business park are situated on land between 105 – 110 AOD. The high point of our site is similarly 105AOD (approx), however the highest parts of the site would be reduced with sensitive cut and fill excavation.

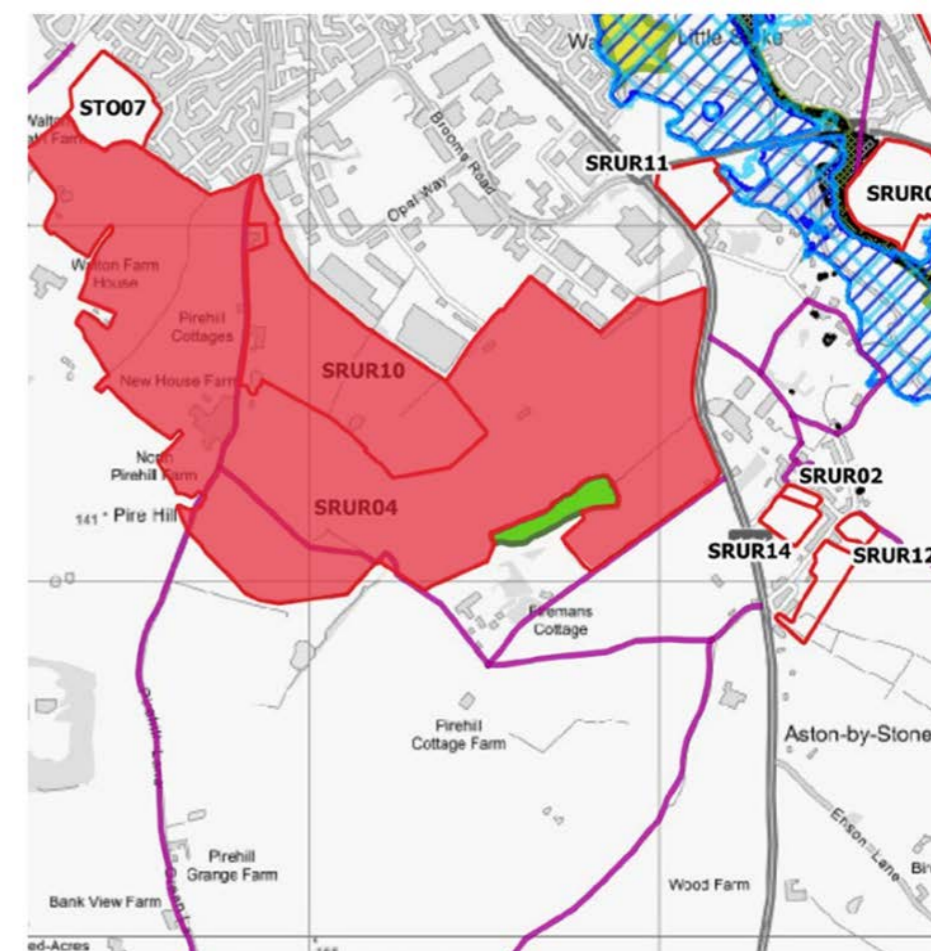
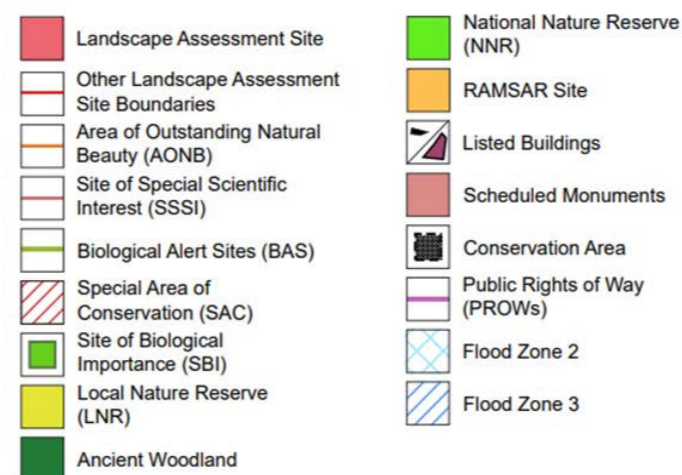


Contours Plan

LANDSCAPE SENSITIVITY

In their Landscape Sensitivity Study, October 2021 Stafford Borough Council assess the landscape sensitivity of our site as part of a much larger parcel of land (ref SRUR04). The study concludes that this parcel has 'medium' landscape sensitivity to development, however, given the size of the assessment parcel we note the inevitable landscape variation across this.

We consider the scenic quality and landscape character of our site will be strongly influenced by the adjacent industrial buildings, lit parking areas and the HS2 railway line. As part of our ongoing technical work, we will undertake a site specific Landscape and Visual Assessment to fully understand the landscape sensitivities of our site and inform the type of mitigation that may be required.

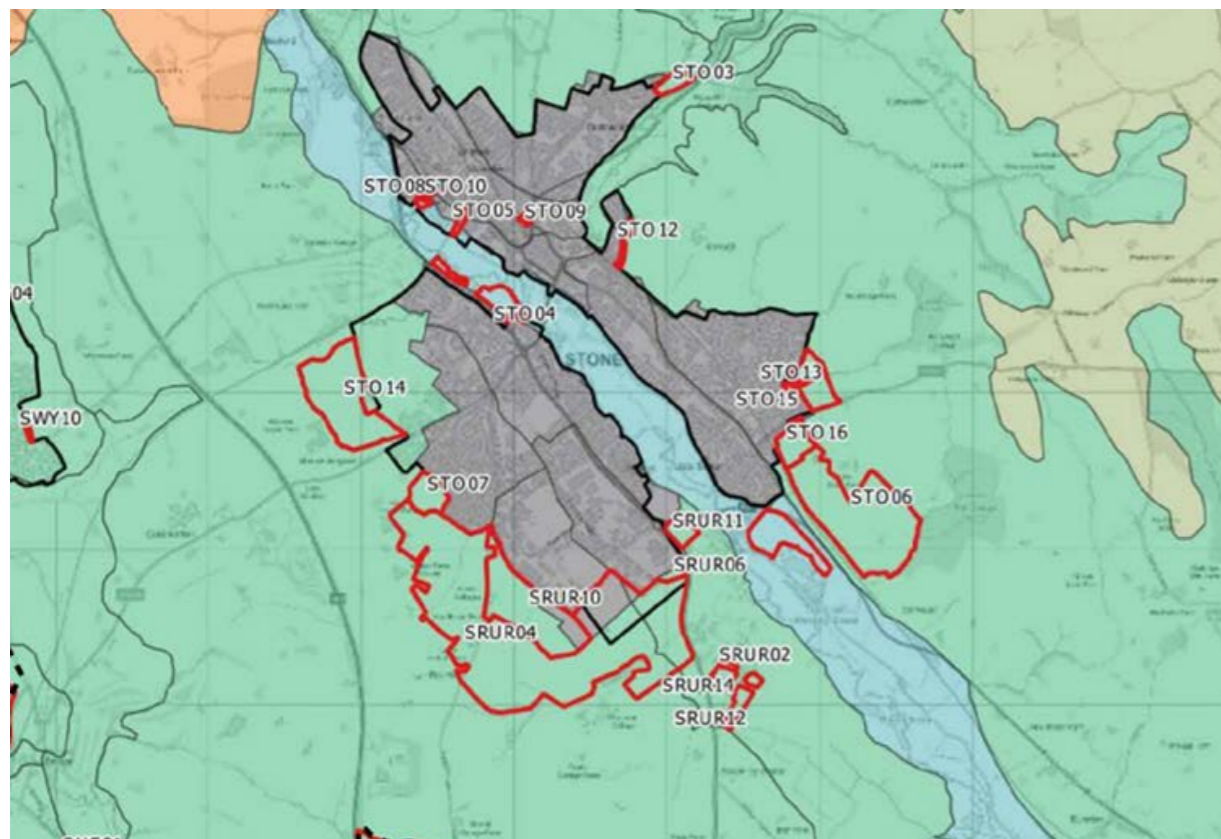


Council Landscape Character Plan

LANDSCAPE CHARACTER

Staffordshire's Landscape Character Assessment Review, 2015 confirms that the site is located within the Settled Farmland Landscape Character Type. This landscape type is described as having "small to medium sized hedged fields... set within an irregular pattern of ancient winding lanes as well as more modern routes in places that link a clustered settlement pattern of scattered farmsteads, groups of roadside dwellings and occasional villages".

Whilst the site comprises small to medium sized fields, due to its location immediately adjacent the urban area of Stone it is considered that the site does not display the other characteristics of this landscape character type.



Staffordshire Landscape Character Assessment Review, 2015 - Landscape Character Types

- Ancient Clay Farmlands
- Ancient Redlands
- Coalfield Farmlands
- River Meadowlands
- Sandstone Hills and Heaths
- Settled Farmlands
- Settled Plateau Farmlands
- Urban
- Wooded Hills and Farmlands

Staffordshire Landscape Character Assessment Review Plan

TREES

There are arboricultural features around the perimeter of the pond and a small cluster of trees immediately east of the pond, which denote the beginning of the leat. There are also hedgerows and trees to the boundaries of the site. The vast majority of these features can be retained through our proposals and we recognise the opportunities to reinforce the boundaries with new planting.

Our proposals would not adversely affect the group of trees immediately west of the site, designated as a Site of Biological Importance.

We will undertake a Tree Survey of the site and its immediate surroundings to further inform our understanding of the site.

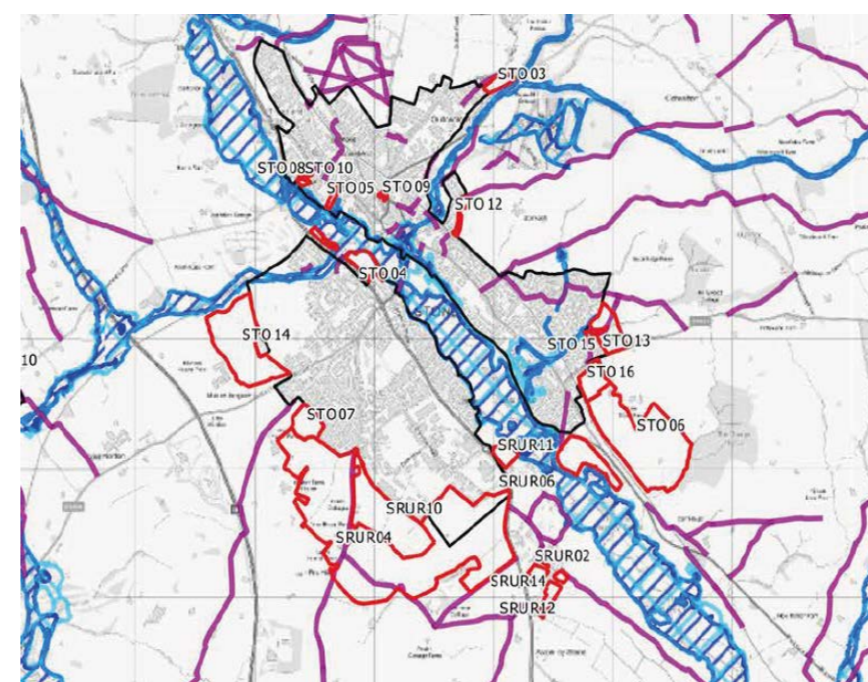
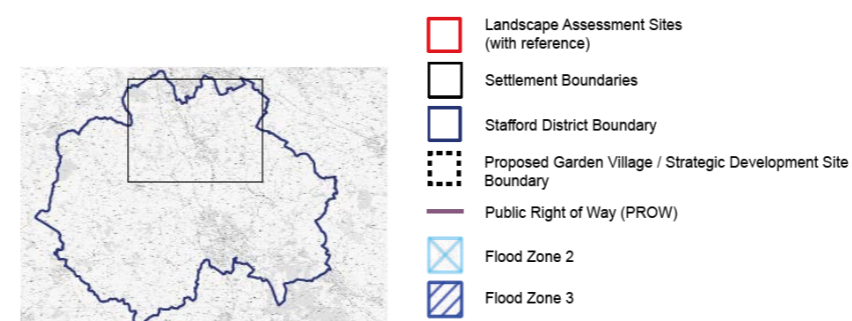
BIODIVERSITY

The site is used for sheep grazing and made up of grassland with relatively few arboricultural features. The site includes a pond, used for fishing, which will be retained. A desk based review of the site confirms that the site is not subject to any environmental designations.

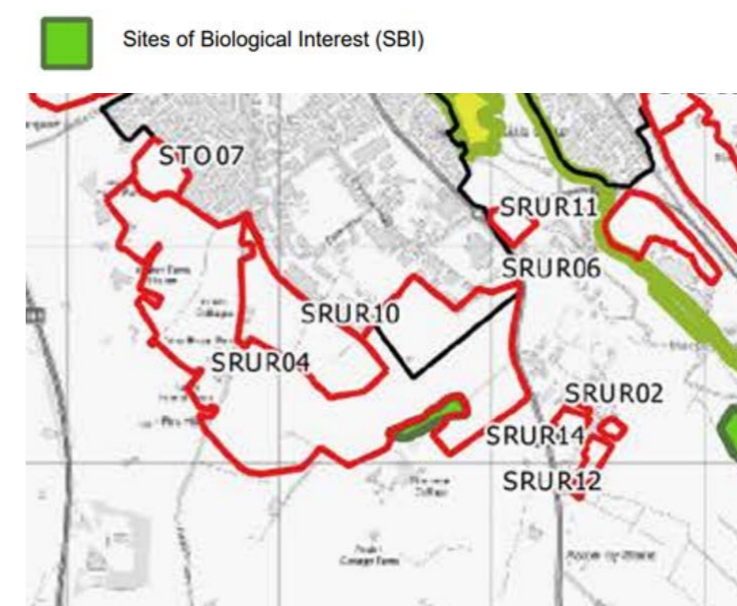
Stafford Borough Council's Landscape Sensitivity Study, October 2021 confirms that the group of trees immediately west of the site boundary constitutes a Site of Biological Importance (SBI). The site is not identified as an opportunity area for the targeting of potential future conservation projects (Stafford Borough Nature Recovery Network Mapping, 2019).

Our proposals will seek to maximise the onsite opportunities for enhancing the ecological value of the site. Our illustrative masterplan includes but is not limited to opportunities for enhancing biodiversity value through additional indigenous planting, the creation of 8.32ha green infrastructure and the formation of drainage ponds.

We will undertake the full range of ecological surveys, as appropriate, such that the existing ecological baseline can be fully understood and used to inform our emerging development proposals for the site.



Landscape Sensitivity Assessment Map



Magic Map Extract

TRANSPORT & MOVEMENT

Our highways consultant, BWB have assessed the likelihood of achieving access to the site from the A34 and reviewed the sustainable travel opportunities available. The potential highway impacts of the proposal (412,000sqft B8 employment development) on the surrounding network have also been considered.

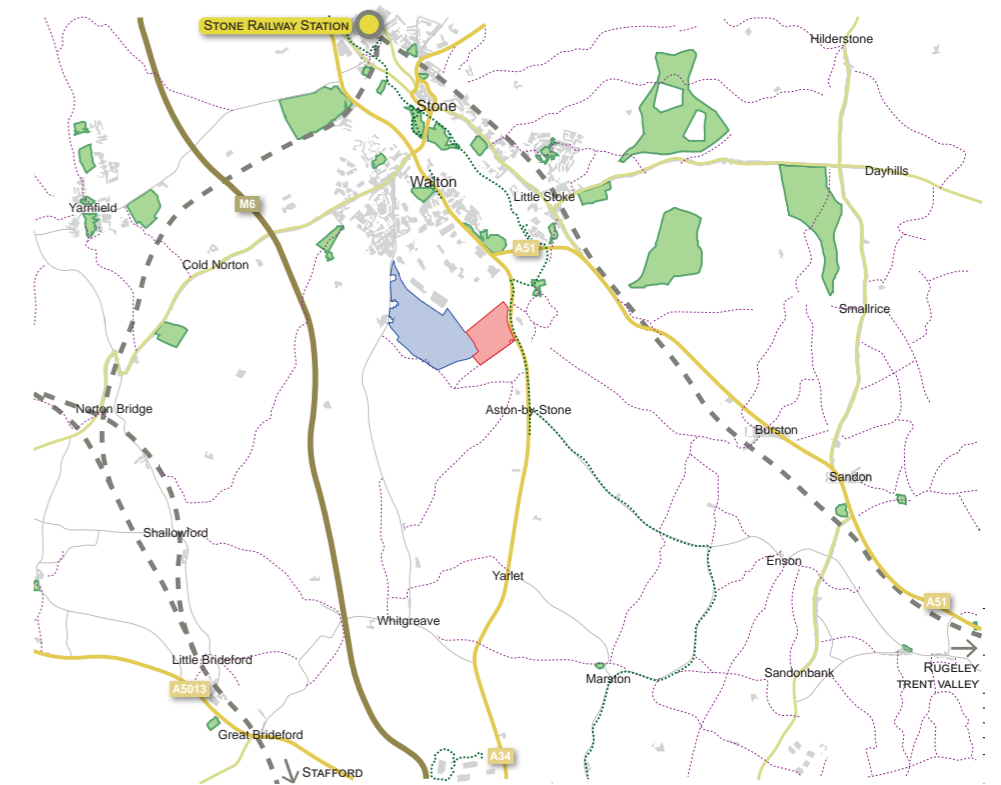
BWB advise that the site is accessible by a range of transport modes including walking, cycling and public transport. Walking trips can be accommodated on the existing footway infrastructure leading towards Stone, whilst cyclists can be accommodated on Route 5 of the National Cycle Network. The existing bus stops on the A34 should continue to be suitable in accommodating any additional patronage. Our proposals include a signal-controlled pedestrian and cycle crossings at the site access on the A34 to transfer pedestrians and cyclists to the eastern edge of the road to the existing footway/cycleway. In addition, a new footway/cycleway is proposed along the western side of the A34 from the site access to the Aston Roundabout to connect people to Brooms Road which serves the wider Stone Business Park and the residential areas of Walton. Off-road footway/cycleway infrastructure is also proposed within the allocation along the main industrial access

road to connect pedestrians and cyclists to the building entrances.

In terms of access, a single point of access in the form of a new signal-controlled junction from the A34 is considered suitable based on the scale of development proposed (412,000sqft), which would operate comfortably within capacity under 2040 future year traffic flows.

Whilst other forms of access could also be deliverable, such as a roundabout, a signal-controlled junction is currently preferred because it would provide safer conditions for pedestrians and cyclists crossing the A34. Full details of the proposed access are included in Section 4 of BWB's Transport Note.

In terms of highway impact, it is considered that there should be no significant impacts caused on the existing operation of the highway network that should preclude the site from being allocated in the Local Plan. Further details relating to the highway impacts of our proposal are included at Section 5 of BWB's Transport Note.



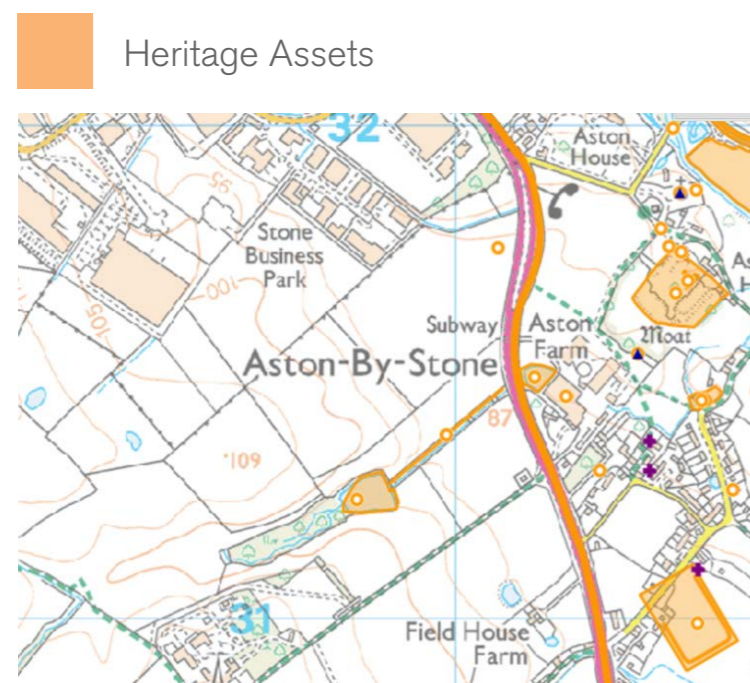
Movement Plan

- Site Boundaries
- Potential Future Expansion Site
- ⋯ Cycle Paths
- - - Public Rights of Way
- Railway
- Motorways
- A Roads
- Other Roads
- Green Areas

ARCHAEOLOGY

The Staffordshire Historic Environment Record shows the presence of a fishpond and leat on site, which connects to the millpond at Aston Farm on the opposite side of the A34. It is understood that this was extant on the 1880s 1st edition map. The onsite pond and associated leat will be retained and sensitively integrated into the development proposals.

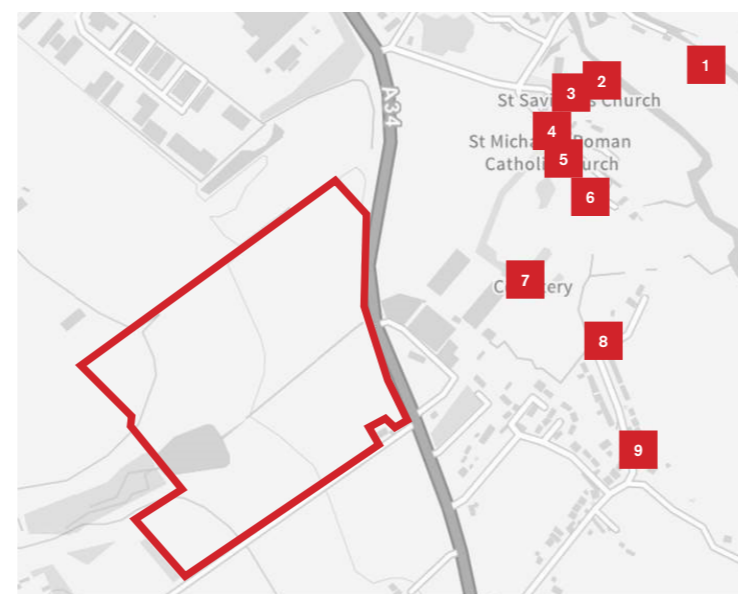
The archaeological potential of the site will be fully considered through the provision of an archaeological desk-based assessment and a field evaluation.



Source: Staffordshire Historic Environment Record Map

BUILT HERITAGE

There are no designated or non-designated built heritage assets within the site. The nearest built heritage assets comprise Grade II listed buildings over 260m east of the site. There are intervening farm buildings and houses that sit between the closest listed buildings and the A34 to the front of the site which may screen those assets from the proposals. We plan to undertake a heritage appraisal to understand the potential impact of our proposal on the significance of surrounding heritage assets, which will inform our emerging masterplan.

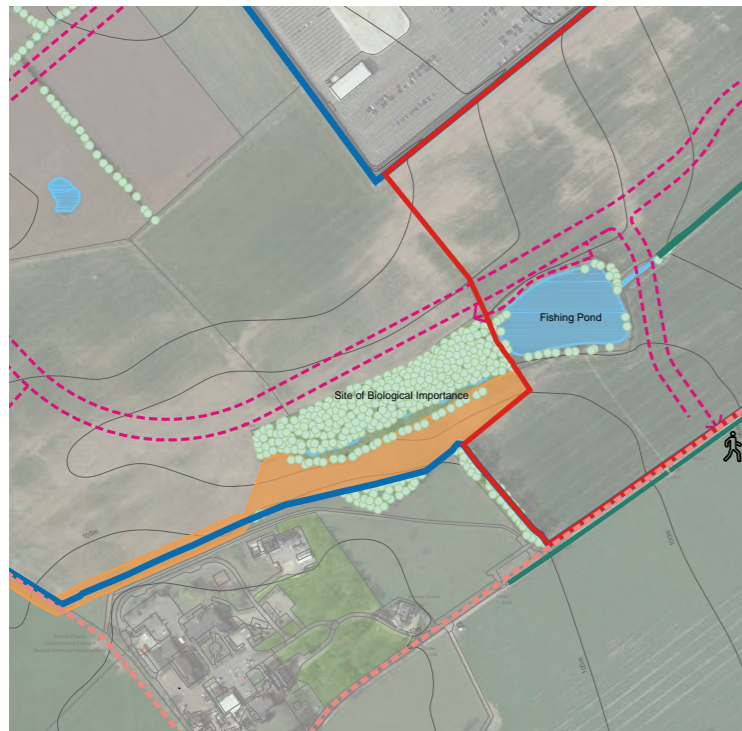


Magic Map Plan of Listed Buildings

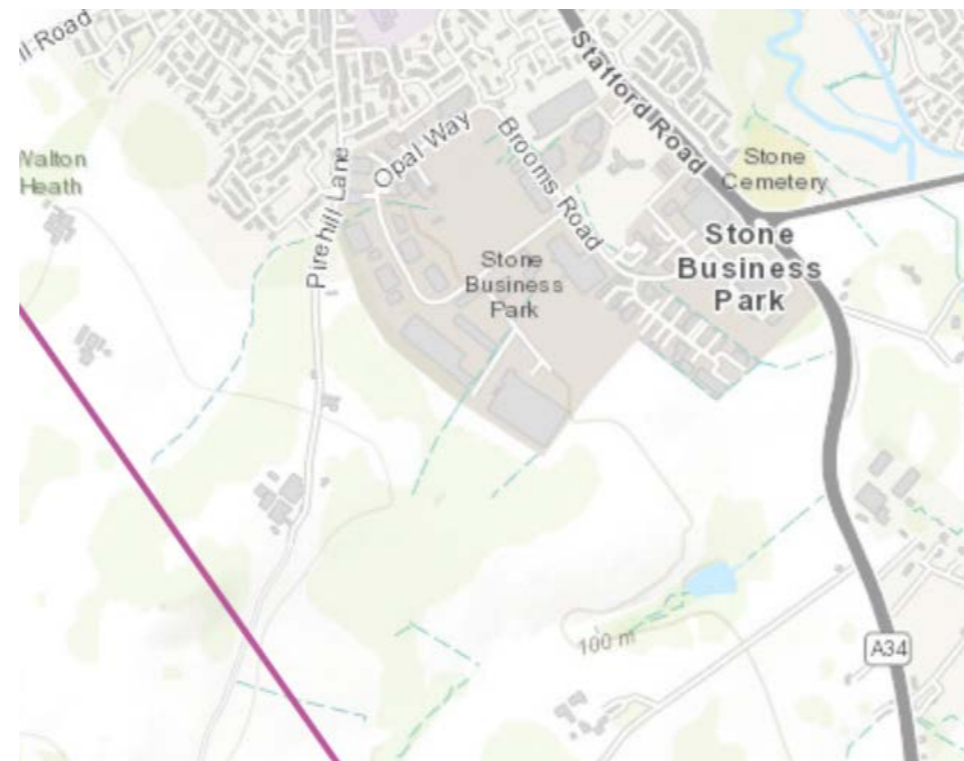
- 1 Trent and Mersey canal milepost at Aston Locks
- 2 Parker Jervis Mausoleum in St Saviours churchyard
- 3 Church of St Saviour
- 4 Gate Piers at Aston Hall
- 5 Roman Catholic Church of Holy Michael Archangel
- 6 Aston Hall, Stone
- 7 Mausoleum at Aston Hall
- 8 Willow Cottage Farmhouse
- 9 Yew Tree Cottage

HS2

The proposed route of HS2 is approximately 1,000m west of the site. Some land immediately west of the fishing pond has been safeguarded for HS2, however this does not affect our proposed site.



HS2 Safeguarded Land



HS2 Route Plan: Hs2.org.uk

Route of HS2

NOISE

A noise assessment will be undertaken to understand the effect of the proposed development on sensitive receptors close to the site and inform the need the type of mitigation required. It is noted that there are very few homes located close to the site.



AIR QUALITY

Our proposals will include the following reduction measure to manage the impact of our development on air quality: on-site electric vehicle charging points, on-site cycle hub; pedestrian link to the existing public footpath, site specific travel plan, new planting and landscape buffers.

An Air Quality Assessment would accompany any planning application for the Site to accurately inform the required mitigation.



FLOOD RISK

The Environment Agency Flood Map confirms that the site is located in Flood Zone 1, meaning that the site has the lowest probability of flooding with less than 1 in 100 annual probability of river or sea flooding. This is more important than ever since the Borough Council has declared a climate emergency.



Environment Agency Flood Map

The Government's surface water drainage map indicates that the northern parts of the site are liable to surface water flooding. This matter has been considered and Sustainable urban Drainage Systems (SuDS) are integrated into the design of our proposals on these lowest parts of the site. A detailed Flood Risk Assessment and Drainage Strategy would accompany any planning application for the Site and mitigate for any surface water risk and reduce the impact of climate change.



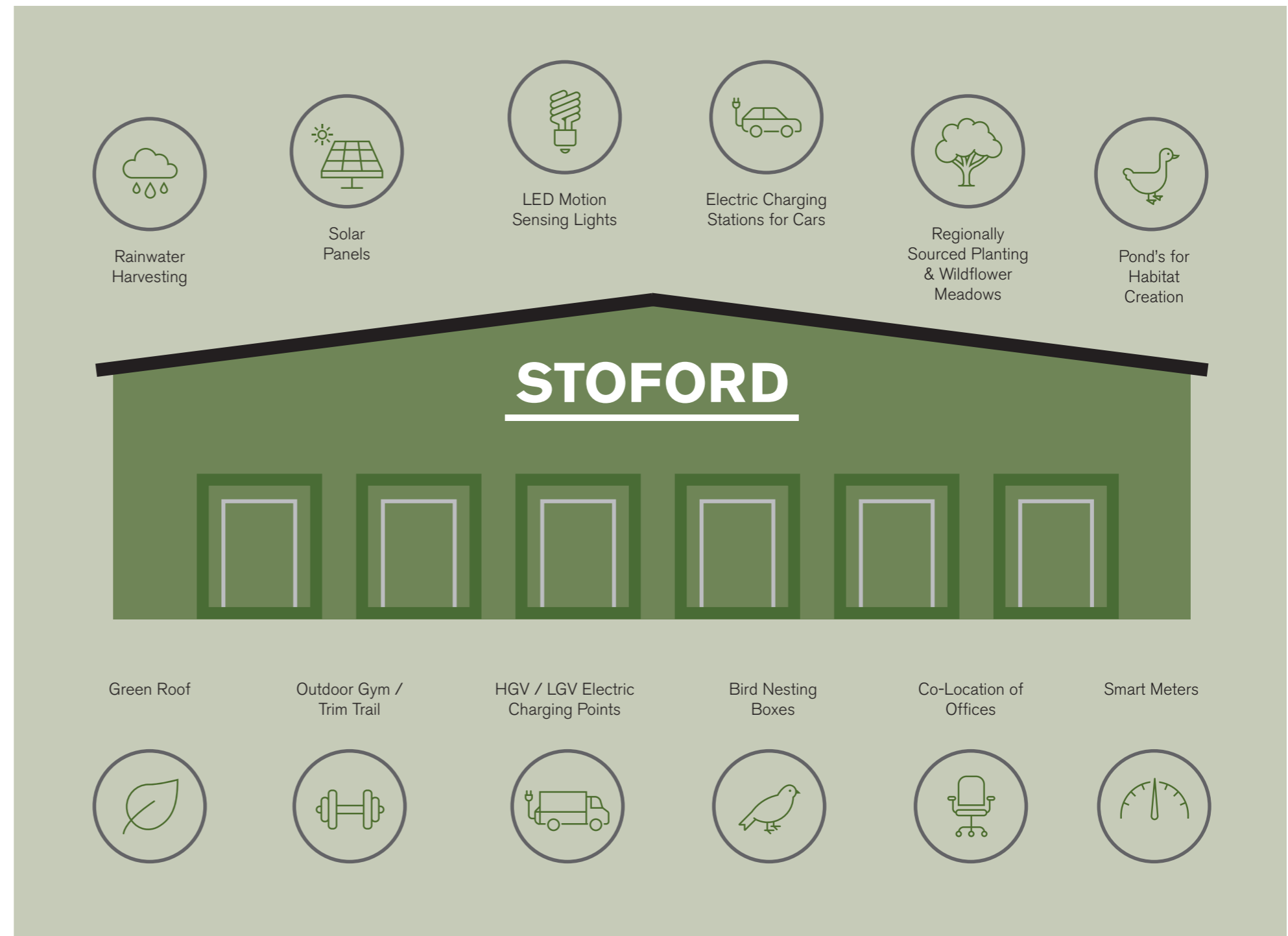
Gov. UK Surface Water Flood Mapping

SUSTAINABILITY

Stoford has a proactive approach to sustainability and the creation of sustainable employment parks that maximise the economic, social and environmental benefits of development. By way of example, this is evidenced in the delivery of our Worcester Six Business Park developments, detailed at section 3 and Pets at Home.

We are proud that our developments are now starting to achieve net zero carbon in operation. At Ellesmere Port, our development for Vauxhall, currently under construction, will achieve this, as will our development at Redditch Gateway. These buildings will also achieve a minimum Energy Performance Certificate (EPC) rating of 'A' and BREEAM ratings of Outstanding and Excellent.

This illustration presents some of the features that we incorporate into our developments as part of our approach to delivering on site sustainability.



We make the following commitments in respect of sustainable development at South Stone Business Park:



Climate Change

Buildings that are well designed, well insulated and minimise energy use.



BREEAM

To ensuring all buildings achieve a BREEAM excellent rating in relation to energy and water efficiency.



Carbon Dioxide Reduction

A commitment to achieve a minimum EPC rating of 'A' and the inclusion of robust new planting.



Water

A commitment to incorporate, where appropriate, rainwater harvesting to provide water for flushing toilets, green roof cycle shelters, substantial stormwater attenuation ponds and swales to store and filter runoff, low flow showers, waterless urinals and permeable paving.



Enabling Net Zero Carbon in Construction

Look to minimise the carbon used in construction, which is more difficult with buildings that are predominantly steel and concrete. We will use carbon neutral cladding systems which come with the TATA Confidex Sustain Guarantee.






Electric Vehicles

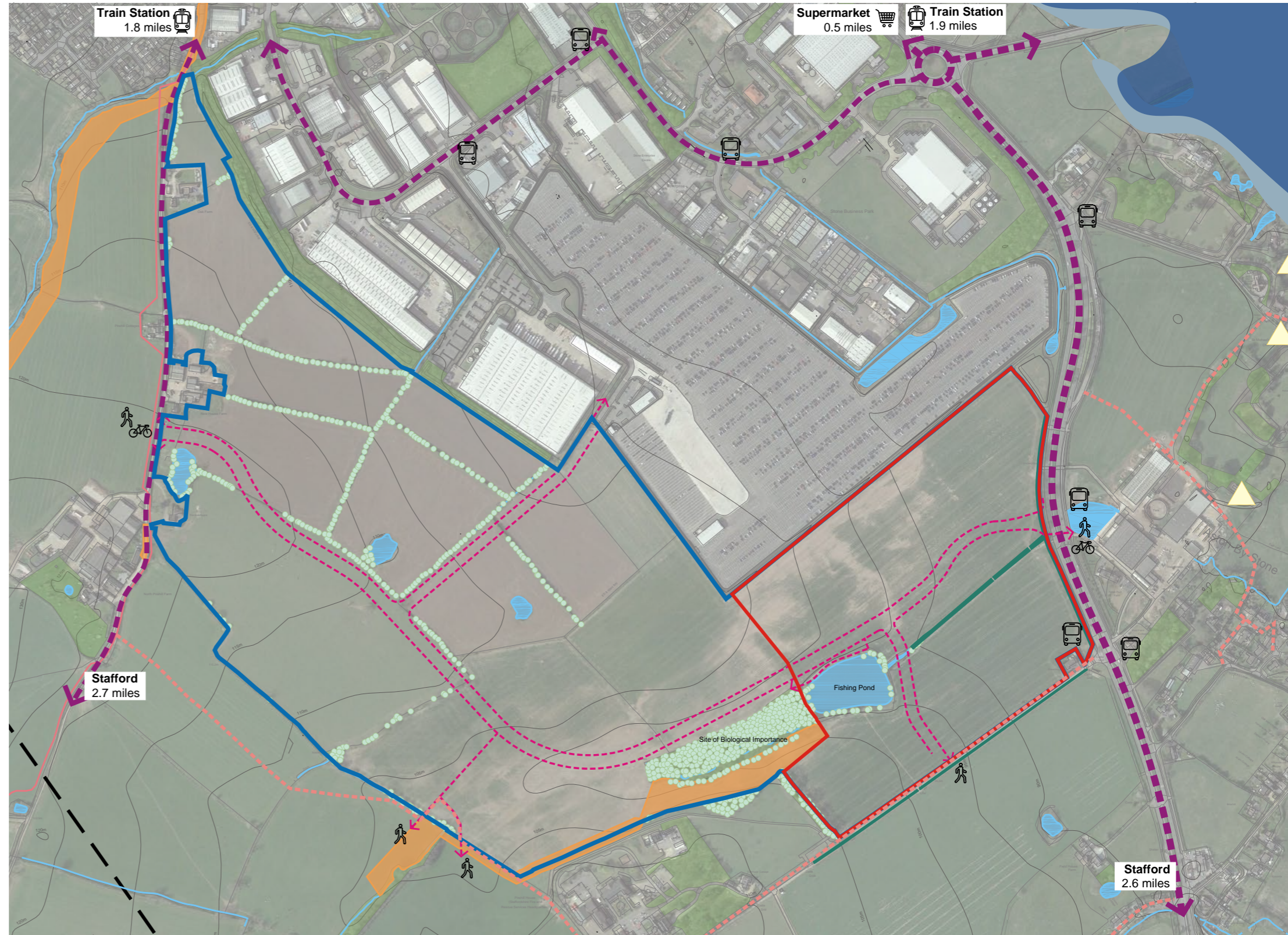
The provision of passive and active EV charging points to encourage sustainable travel for employees.

7

OPPORTUNITIES & CONSTRAINTS

- Site Boundaries
- Potential Future Expansion Land
- ■ ■ ■ HS2 Route
- HS2 Retained Safeguard
- - - - Existing PROW
- Existing Woodland
- Existing Hedgerow
- Flood Zone 3
- Flood Zone 2
- ▲ Listed Buildings
-  Bus Stops
-  Cycle route
-  Pedestrian route

Opportunities & Constraints Plan



The site is unaffected by restrictive designations. Beyond the western site boundary, adjacent the pond, a group of trees are designated as a site of biological interest. A flood zone category 3 lies well beyond the site's boundary to the east, as do Grade II heritage assets. A public footpath (named Stone Rural 30) runs along the southern boundary of the site connecting with Pirehill Lane in the west and the A34 in the east.

Whilst the site is readily accessible by foot, cycle and public transport we consider there is the opportunity to further enhance its sustainability with an onsite cycle hub with employee bike hire and a pedestrian link within the development to the southern public footpath.

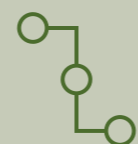
There are opportunities to create green links with the adjacent site of biological interest with the inclusion of high value green and blue infrastructure in the development. The dense tree belt on the western boundary would be retained and we would seek to maximise the opportunities for new planting at the site alongside the enhancement of existing green boundaries.

The onsite pond is recognised as an attractive feature and with the inclusion of seating would make an ideal employee wellbeing area. As part of Stoford's development at Exeter Logistics Park, we have just completed the first part of our staff wellbeing initiative which incorporates outdoor bodyweight exercise equipment. The scale of our site offers a similar opportunity to promote health and wellbeing.

OPPORTUNITY HIGHLIGHTS



On-site cycle hub



Create Green Links



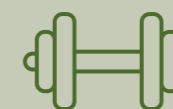
Retained dense tree belt



Maximise new planting to enhance existing green boundaries



Employee Wellbeing Area



Outdoor Exercise Equipment

8

THE MASTERPLAN

Legend:

- Site Boundary
18.66 Ha / 46.10 Ac
- Net Developable Area
9.38 Ha / 23.18 Ac
- Green Infrastructure
8.32Ha / 20.57 Ac

UNIT 1
Warehouse: 112,000 sqft
FF Mezz Office: 5,600 sqft
Total GIA: 117,600 sqft


Unit 2
Warehouse: 133,000 sqft
FF Mezz Office: 6,650 sqft
Total GIA: 139,650 sqft

Unit 3
Warehouse: 51,350 sqft
FF Mezz Office: 2,565 sqft
Total GIA: 53,915 sqft

Unit 4
Warehouse: 96,000 sqft
FF Mezz Office: 5,000 sqft
Total GIA: 101,000 sqft

Total GIA: 412,165 Sq. ft. / 38,291m²
Total GEA: 435,699 Sq. ft. / 40,477m²

 Employee wellbeing area with seating

 Cycle Hub



The masterplan for the site has been developed through a comprehensive analysis of its opportunities and constraints to present a scheme that is truly suitable, achievable and deliverable.

The masterplan provides a total of 412,165 square feet (c.38,291 square metres) of Use Class B8 floorspace, with ancillary offices, across a mix of small and medium sized units to meet local need.

	Sqm (GIA)	Sqft (GIA)
Unit 1	10,925	117,600
Unit 2	12,974	139,650
Unit 3	5,009	53,915
Unit 4	9,383	101,000
Total (GIA)	38,291	412,165
	Acres	Hectares
Site Area (Phase 1 only)	46.10	18.66
Gross to Net	50.2%	
Green infrastructure	8.32ha	20.57 acres

A signal-controlled pedestrian and cycle crossings is proposed at the site access on the A34 to transfer pedestrians and cyclists to the eastern edge of the road to the existing footway/cycleway. In addition, a new footway/cycleway is proposed along the western side of the A34

from the site access to the Aston Roundabout to connect people to Brooms Road which serves the wider Stone Business Park and the residential areas of Walton. Off-road footway/cycleway infrastructure is also proposed within the allocation along the main industrial access road to connect pedestrians and cyclists to the building entrances.

The onsite fishing pond and leat are integrated into the site's design, providing an attractive feature for employee's to enjoy. Drainage ponds are located on the lowest parts of the site which provide the beginning of a generous green infrastructure corridor through the centre of the site, which will enhance the site's biodiversity value. Open space has also been left between the buildings to facilitate the inclusion of landform alterations and structural planting to soften the appearance of the buildings. The site is designed to retain the existing perimeter planting as much as possible and provides opportunities for additional planting.

The buildings will be viewed in context with the industrial buildings of Stone Business Park and the A34 corridor and screened by existing and additional planting.

In summary the following features are provided:



A high quality sustainable business park



412,165 sqft (c.38,291 sqm) of employment floorspace



Signal-controlled pedestrian and cycle crossings at the site access



New footway / cycleway along the western side of the A34 and within the site



Sustainable drainage and ecological enhancement



8ha green infrastructure



Employee wellbeing area with seating



On-site cycle hub & located on a bus route





Creation of c.3,000 FTE jobs during the operational phase and further jobs during construction


9

PHASING PLAN

Legend:


 Potential Future Expansion Land
124.25 Ac / 50.28 Ha


 Site Area
46.10 Ac / 18.66 Ha

 Net Developable
23.18 Ac / 9.38 Ha

 PROW

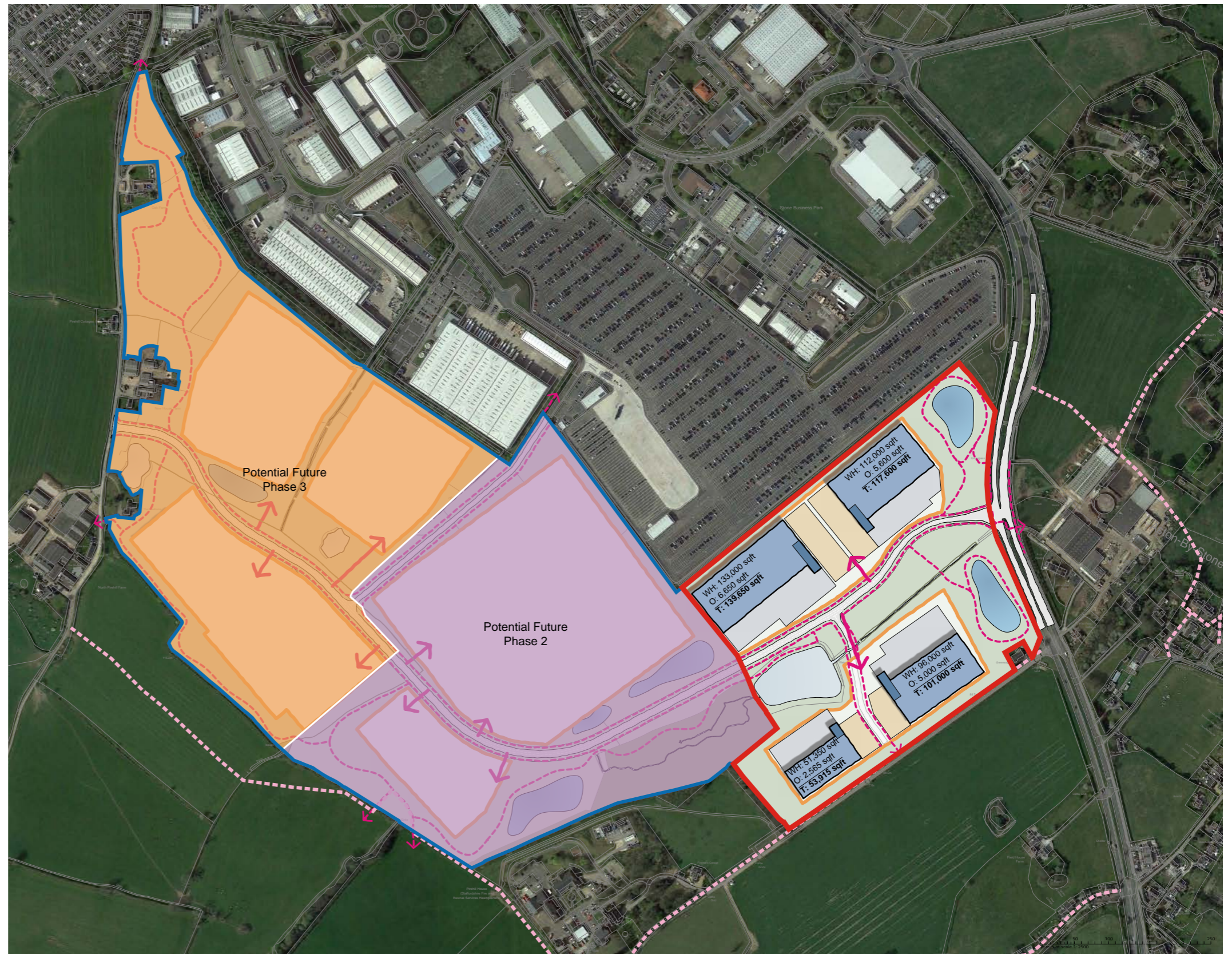
 Potential Connection Links

 Potential Phase Two

 Potential Phase Three

Phase 1
Total GEA: 435,699 Sq. ft. / 40,477m²

Phasing Plan



Stoford control additional land to south and west of the site which is the subject of this Vision Document.

Between the Stoford controlled land and Pirehill Lane, we understand that additional land in the control of Staffordshire County Council and R E Weaver is also available for development and was submitted through the call for sites process. Should the Council consider extensive allocations at Stone, these sites, together with the land being promoted herein, provide an alternative development location that could be explored.

This would be consistent with the Council's decision to allocate further residential development in South Stone, on land at Marlborough Road for 101 new homes.



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www.stoford.com



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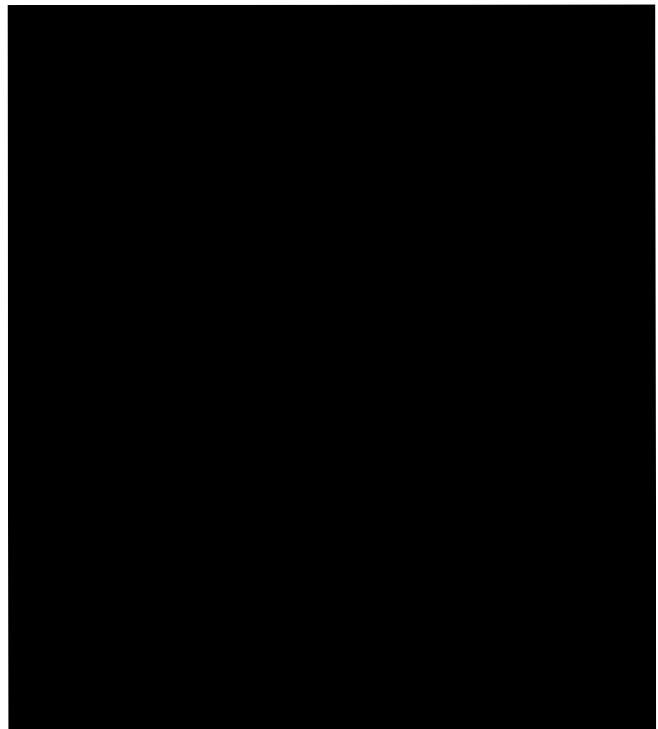


TRANSPORT & INFRASTRUCTURE PLANNING

Stoford Properties Ltd
South Stone Business Park Proposed Employment
Local Plan Allocation
Transport Note

TRANSPORT & INFRASTRUCTURE PLANNING

Stoford Properties Ltd
South Stone Business Park Proposed Employment Local Plan
Allocation
Transport Note



December 2022



DOCUMENT ISSUE RECORD

Document Number:	SAA-BWB-GEN-XX-RP-TR-0001_HN-S2-P2
BWB Reference:	220592

Revision	Date of Issue	Status	Author:	Checked:	Approved:
P1	30.11.22	S2	[REDACTED]	[REDACTED]	[REDACTED]
P2	06.12.22	S2	[REDACTED]	[REDACTED]	[REDACTED]

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DRAWINGS

- SAA-BWB-ZZ-XX-DR-TR-0001_Signal Access-S2-P2

APPENDICES

- APPENDIX 1: National Cycle Route 5
- APPENDIX 2: Modelling Technical Note

1. INTRODUCTION

- 1.1 BWB Consulting Ltd ("BWB") has been appointed by Stoford Properties Ltd ("Stoford") to assist with promoting land through the Stafford Local Plan process for employment development. The proposed allocation site is located to the south of Stone Business Park and west of the A34 as shown at **Figure 1**.

Figure 1. Site Location



- 1.2 Stafford Borough Council (SBC) is consulting on the Local Plan 2020-2040 'Preferred Options' document, seeking views on draft policies and land for new development over the next 18 years. Stoford are therefore looking to promote an allocation for 412,000sqft (38,276sqm) of B8 employment development on a site of 18 hectares.
- 1.3 The purpose of this Transport Note is to support the South Stone Business Park allocation through the SBC Local Plan process by examining the following associated transport areas:
- Accessibility by sustainable modes.
 - Vehicular access.
 - Highway impact on the A34 corridor to the north of the site.
- 1.4 Stoford is also promoting various allocations to the north of Stafford for a mixture of employment and residential-led development. The maximum quantum of development within the allocation is still under consideration and therefore two options are being promoted, which are set out below and are considered in this Transport Note, with particular regard to highway network capacity. BWB has prepared a separate

Transport Note (report ref: **RP3-BWB-GEN-XX-RP-TR-0002_HN**) promoting the Stafford allocations.

- Development Option 1 – circa 600 residential dwellings and a primary school (east of A34) plus 135,000sqft (12,500sqm) of B8 use and 1 million sqft (93,000sqm) of B8 development (west of A34).
- Development Option 2 – circa 600 residential dwellings and a primary school (east of A34) plus 135,000sqft (12,500sqm) of B2/B8 use and 1.4 million sqft (130,000sqm) of B8 development (west of A34).

1.5 The former represents the maximum capacity for employment floorspace from the allocation CRE 02 (i.e. 31.15 hectares). The latter represents the capacity of the potential extended allocation (i.e. total gross site area of 58.54 hectares).

2. BACKGROUND INFORMATION

Stafford Local Plan 2011-2031

2.1 The adopted SBC Local Plan currently covers the period between 2011 and 2031. The Local Plan review period extends to 2040 as mentioned above. Policy 2 – ‘North of Stafford’ relates to a strategic development located to the north of Stafford. The allocation includes most of the Stafford North Business Park development that is currently being built at the western side of the A34 approximately 6 kilometres south of the employment allocation. BWB were involved in the Transport Assessment for this scheme which this Transport Note refers to. Further details are provided below.

Stafford North Business Park (Pets at Home) Application

2.2 In 2020, BWB produced a Transport Assessment in support of a planning application for Phase 2 of the Redhill development (planning ref: **20/33137/FUL**). The 2020 scheme received planning permission in January 2021 for a single B8 distribution unit of 77,900sqm and is being occupied by Pets at Home.

2.3 Given the Stafford North Business Park development comprises the same land use as the Stone allocation, both of which would be accessed from the A34, this Transport Note utilises relevant information from the 2020 Transport Assessment. This includes the employment trip rates and the distribution pattern used to assign the peak hour traffic generation to the network. Whilst any future Transport Assessment would obtain new trip rates and revisit the traffic distribution using data from the latest Stafford SATURN model, the previous information should provide a reasonable assessment at this stage.

3. SUSTAINABLE INFRASTRUCTURE

Introduction

- 3.1 The A34 between the promoted South Stone Business Park allocation and Stone provides opportunities for people to walk, cycle and access bus services, which would therefore support any future development at the site. The existing infrastructure in the vicinity of the allocation is shown indicatively on **Figure 2**. This includes footway and cycleway infrastructure, pedestrian/cycle crossings and bus stops on the A34, further details of which are provided in the following section.

Figure 2. Existing/Consented Sustainable Travel Infrastructure



Catchment Areas

- 3.2 In terms of catchment areas, it is typically accepted for people to walk up to 2 kilometres for commuting, leisure and shopping trips, whilst 5 kilometres is typically accepted for cycling trips. **Figure 3** shows a 2 kilometres catchment area, whilst **Figure 4** shows a 5 kilometres catchment area centred on the employment site.

Figure 3. 2 Kilometres Walking Catchment Area

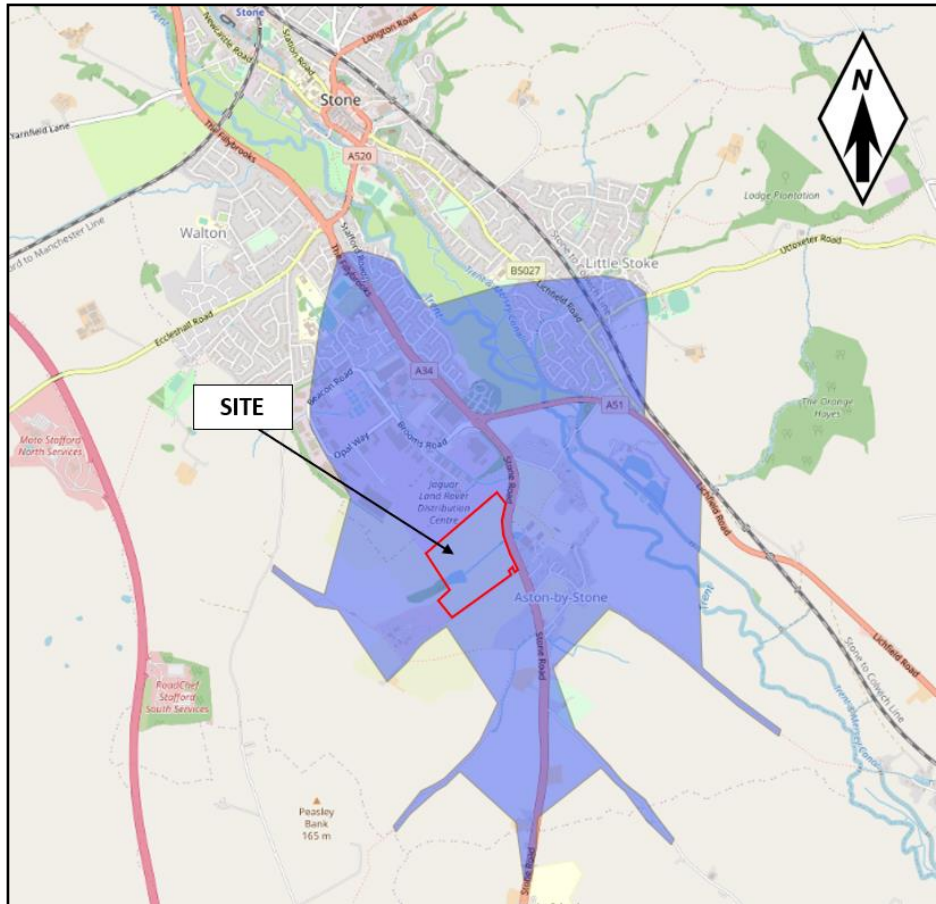
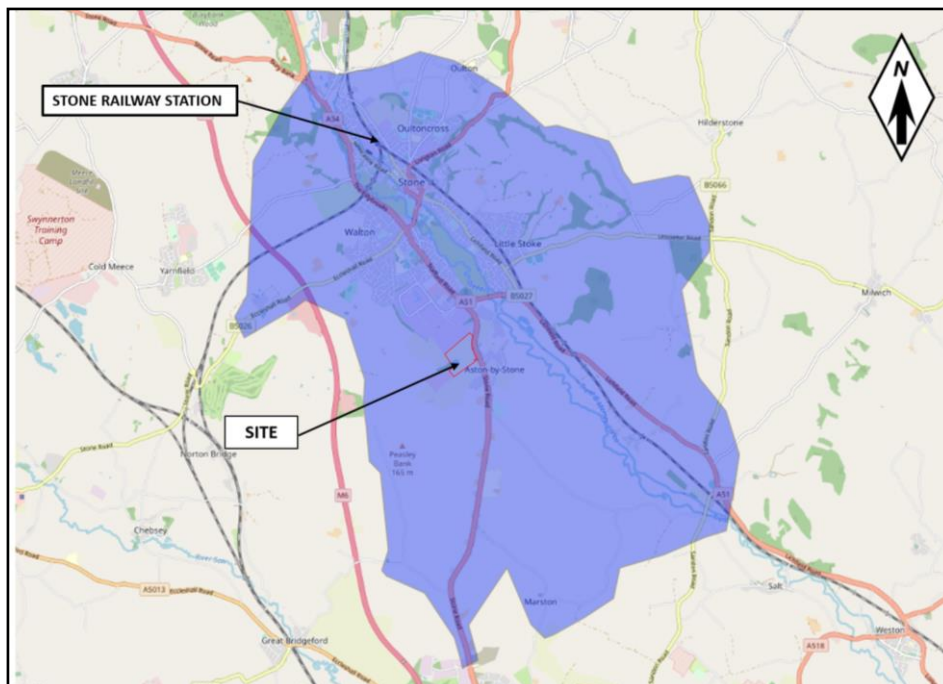


Figure 4. 5 Kilometres Cycling Catchment Area



Active Travel

- 3.3 The A34 provides a shared footway/cycleway along its eastern edge which connects Stone with Stafford and forms part of Route 5 of the National Cycle Network. At the site frontage, the footway/cycleway measures approximately 2.5 metres wide and directly abuts the edge of the A34 carriageway. Opposite the northern end of the site frontage, the footway/cycleway diverts off-line and follows a service road before re-joining the A34 further north close to its junction with Church Lane.
- 3.4 Route 5 of the National Cycle Network then continues east along Church Lane for a distance of approximately 400 metres where it meets the River Trent before extending north along an off-road cycle track that follows the line of the river into Stone. **Appendix 1** includes a plan showing the location of Route 5 of the National Cycle Network in the local area.
- 3.5 The A34 to the north of Church Lane provides a footway along its eastern edge which extends up to Aston Roundabout (A34/A51). Dropped kerb pedestrian crossings are provided across the A51 to connect pedestrians further north along the A34 which continues into Stone. To the north of Aston Roundabout, the A34 provides a number of signal-controlled pedestrian crossings connecting development on both sides of the road.
- 3.6 Residents living within the Walton area to the northwest of the site would have opportunities to travel to the site via Brooms Road which forms the western arm of Aston Roundabout. This road acts as the main route into Stone Business Park and features footways along both sides of the carriageway. It also provides dropped kerb crossings along each of the side roads.
- 3.7 The above pedestrian and cycle facilities should be largely suitable in supporting additional activity from the employment allocation and provide appropriate connections for people travelling from the wider areas of Walton, Stone and Stafford. The proposed allocation would provide signal-controlled pedestrian and cycle crossings at the site access on the A34 to transfer pedestrians and cyclists to the existing footway/cycleway. In addition, a new footway/cycleway would be proposed along the western side of the A34 from the site access to the Aston Roundabout to connect people to Brooms Road which serves the wider Stone Business Park and the residential areas of Walton. Off-road footway/cycleway infrastructure would also be proposed within the allocation along the main industrial access road to connect pedestrians and cyclists to the building entrances.

Public Transport (Bus)

- 3.8 A pair of bus stops currently exist on the A34 at the southern end of the site frontage and within a 500 metres walking distance of the entire site. The southbound bus stop accommodating services towards Stafford provides a shelter, whilst the northbound stop accommodating services towards Stone includes a flag and pole. Both stops feature a bus lay-by to reduce conflict with parked buses and other vehicles travelling along the A34.

- 3.9 The bus stops on the A34 are served by Route Number 101, which currently travels along the A34 every 30 minutes in either direction. Route Number 101 provides a connection to Stafford Town Centre (inc. railway station), Stone, Newcastle-under-Lyme and Hanley (Stoke-on-Trent).
- 3.10 These bus stops would be within a convenient walking distance of the site without the need to provide additional bus stops internally. However, the public transport strategy would be considered in further detail as part of any future Transport Assessment and could include proposals to improve the facilities at the existing bus stops, such as providing a shelter at the northbound stop and possibly real time information.

Public Transport (Rail)

- 3.11 Bus Route Number 101 travels to Stone Railway Station (**Figure 1**) located approximately 4 kilometres to the north of the site. Stone Railway Station is a stop on the West Midlands Train line and is served by an hourly frequency train in both directions travelling towards Crewe and Birmingham New Street.

4. ACCESS PROPOSALS

- 4.1 The following section considers whether access is achievable from the A34 to serve the employment allocation. The access option presented below is a preliminary layout that considers current adopted design standards within the Design Manual for Roads and Bridges. However, it will need to be the subject of further detailed assessment within any future Transport Assessment. At this stage, it is anticipated that a single point of access would be sufficient based on the scale of development being promoted at the site.
- 4.2 It is envisaged that access would be provided via a new signal-controlled junction from the A34. Whilst other forms of access could also be deliverable, such as a roundabout, a signal-controlled junction is currently preferred because it would provide safer conditions for pedestrians and cyclists crossing the A34. However, as the proposals evolve, access will also. Any future Transport Assessment would consider the most appropriate access type using up to date traffic data and in liaison with the local highway authority.
- 4.3 **Drawing Number SAA-BWB-ZZ-XX-DR-TR-0001 Revision P2** shows a preliminary layout for a new signal-controlled junction. The design provides two lanes on the A34 in both directions, along with a separately signalled right turn lane from the A34(N) for movements into the site. A short left turn flare would also be provided on the A34(S) for movements into the site. The site access arm would comprise a single lane with short left turn flare as the predominant flow of traffic is expected to route to the south on the A34. Finally, pedestrian and cycle crossings would be provided on the site access and A34(S) arms, which would connect people to the existing footway/cycleway on the eastern side of the A34 and to the existing southbound bus stop. The design of the site access would meet current adopted design standards.

5. HIGHWAY IMPACT

Development Traffic Generation and Distribution

- 5.1 To calculate the volume of peak hour traffic that could be generated by the employment allocation, the trip rates from the Stafford SATURN model have been used, which were agreed with the local highway authority and National Highways during the planning application for Stafford North Business Park. Using these trip rates, **Table 1** calculates the peak hour traffic generation based on a floor area of 38,276sqm.

Table 1. Stone Allocation Trip Generation

	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
Lights	38	10	48	11	34	45
HGVs	11	10	21	8	8	16
Total Veh.	48	19	67	20	43	63
pcu	59	29	88	28	51	79

- 5.2 The agreed distribution pattern used to assign traffic from Stafford North Business Park to the surrounding highway network has also been retained to assign the above traffic generation. As with Phase 2, separate distribution patterns were used for light and heavy vehicles.
- 5.3 Previously, traffic from Phase 2 travelling to the M6 northbound was assigned via Junction 14, whereas the location of the allocation in Stone would mean that traffic would be more likely travel to the M6 northbound via Junction 15. Similarly, traffic from Stafford North Business Park heading east out of Stafford was assigned via the A513 (Stafford bypass), which instead would more likely route from the site via the A51 from Aston Roundabout. Hence, this has been reflected in this traffic distribution and results in circa 60% routing north and 40% routing south on the A34 from the site access.

Background Traffic Growth

- 5.4 Background traffic flows have been obtained from a Transport Assessment Addendum supporting a residential development at Udall Grange located on Eccleshall Road in Stone (**13/19002/OUT**). The data is based on surveys undertaken in 2012, which have been increased to 2040 using appropriate growth factors from the TEMPro database. This should provide a robust assessment for the purposes of this Transport Note, although full details are included in a Technical Note included at **Appendix 2**.

Junction Modelling

- 5.5 The new signal-controlled site access and junctions along the A34 corridor to the north towards Stone have been assessed for their future performance with the employment allocation in place at a 2040 future year. The full assessment methodology and analysis is included in the Technical Note at **Appendix 2**, whilst a summary of the key conclusions is provided below:

- The new signal-controlled access junction would operate comfortably within capacity and hence would satisfactorily accommodate the future forecast traffic flows.

- The Aston Roundabout (shown at **Figure 1**) is likely to be reaching capacity by 2040 although is being improved as part of a HS2 mitigation scheme. The Stone allocation would have a minimal impact on the Aston Roundabout increasing flows by 1% on certain arms. Given the junction is likely to be operating at or close to capacity in 2040, further improvements would be needed and opportunities are available to provide mitigation through minor widening of the approach arms.
- The Stafford Roundabout (shown at **Figure 1**) is currently operating at capacity. Whilst the employment allocation is expected to have a minor impact on traffic flows through the junction increasing them by up to 1% on certain arms, it is considered that mitigation would be required and could be achieved by delivering a scheme of signalisation.
- The employment allocation would generate 27 movements (or 35 pcus) to the south along the A34 towards Stafford. This volume of traffic is minimal and would have no significant impacts on junctions to the south along the A34 corridor and hence no further assessment should be needed.

5.6 In summary, it is considered that there should be no significant impacts caused on the existing operation of the highway network that should preclude the site from being allocated for employment development in the SBC Local Plan.

6. CONCLUSIONS

6.1 This Transport Note has been prepared to promote an employment allocation of 412,000sqft located to the south of Stone Business Park through the SBC Local Plan.

6.2 This Transport Note has assessed the likelihood of achieving access to the allocation from the A34 and reviewed the sustainable travel opportunities available. It has also considered the potential traffic impacts on the surrounding network.

6.3 The main conclusions of the Transport Note are as follows:

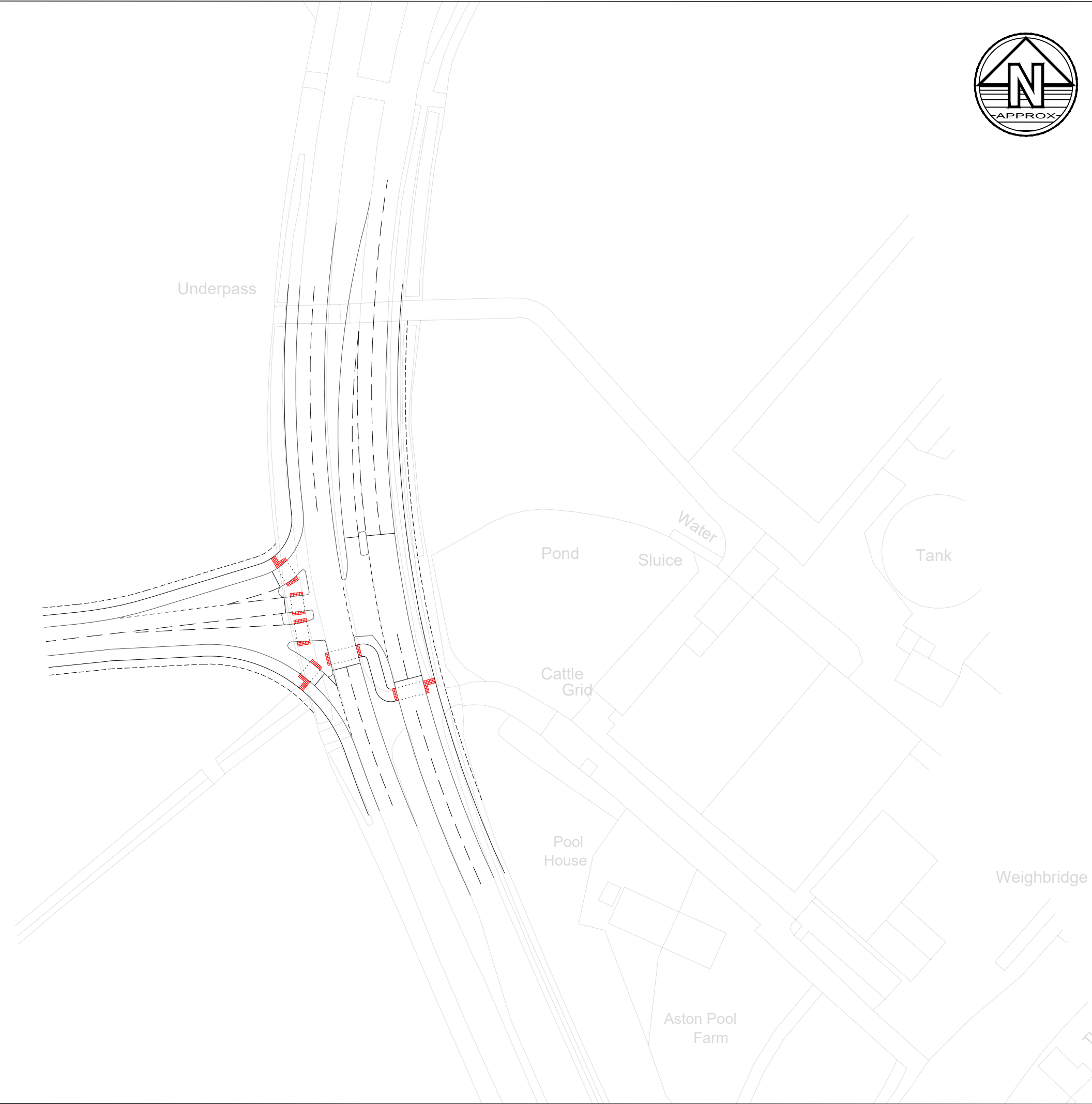
1. Access to the site could be achieved by a new signal-controlled junction on the A34. A fully compliant signal-controlled junction could be achieved that would provide benefits to pedestrians and cyclists crossing the A34. It would also operate comfortably within capacity under 2040 future year traffic flows.
2. The site would be accessible by a range of transport modes including walking, cycling and public transport. Walking trips could be accommodated on the existing footway infrastructure leading towards Stone, whilst cyclists would be accommodated on Route 5 of the National Cycle Network. The existing bus stops on the A34 should continue to be suitable in accommodating any additional patronage. Any future proposals would have the opportunity to improve and enhance the existing facilities.
3. The additional traffic from the employment allocation would be minimal compared to baseline flows, however the junctions are expected to be operating at or close to capacity in 2040. Therefore, it is considered that the additional traffic generated by the Stafford allocations is likely to require modest mitigation at the Aston

Roundabout and Stafford Roundabout in Stone. However, the latter is likely to involve a more comprehensive solution if existing capacity issues are to also be resolved.

- 6.4 Overall, it is concluded that there are no significant highway impacts arising from the employment allocation. On this basis, the site is considered suitable for inclusion within the SBC Local Plan.

DRAWINGS

1. Do not scale this drawing. All dimensions must be checked/ verified on site. If in doubt ask.
2. This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.
3. All dimensions in millimetres unless noted otherwise. All levels in metres unless noted otherwise.
4. Any discrepancies noted on site are to be reported to the engineer immediately.



Rev	Date	Details of issue / revision	Drw	Rev
P1	25.11.22	PRELIMINARY ISSUE	CP	DH

Issues & Revisions



Project Title
STONE ACCESS APPRAISAL, STAFFORDSHIRE

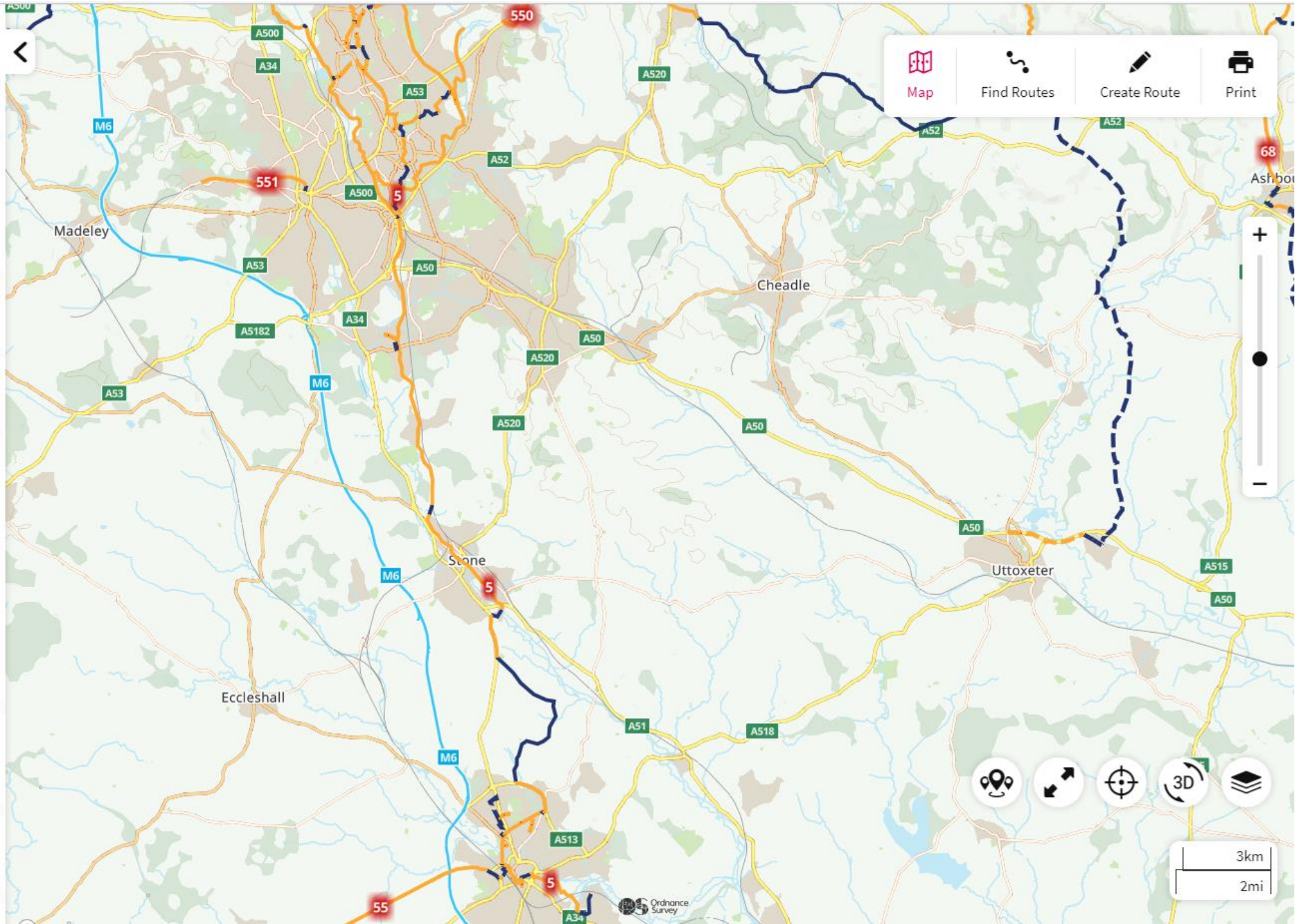
Drawing Title
PROPOSED SITE ACCESS

Drawn:	C Price	Reviewed:	D Hodgson
BWB Ref:	220592	Date:	25.11.22
Scale:	A3	As Shown	

Drawing Status			
PRELIMINARY			
Project - Originator - Zone - Level - Type - Role - Number	Status	Rev	
SAA-BWB-ZZ-XX-DR-TR-0001	S2	P01	

APPENDICES

APPENDIX 1: National Cycle Route 5



APPENDIX 2: Modelling Technical Note

TECHNICAL NOTE**Stone Proposed Employment Local Plan Allocation – Modelling Work**

Project Name	Stone Proposed Employment Local Plan Allocation – Modelling Work		
Document Number	SAA-BWB-GEN-XX-RP-TR-0002_TN	BWB Ref	220592
Author	██████████	Status	S2
Checked	██████████	Revision	P2
Approved	██████████	Date	November 2022

1. INTRODUCTION

1.1 This Technical Note includes full details of the highway impact assessment work undertaken within a separate Transport Note prepared to support an employment allocation of 412,000sqft located to the south of Stone Business Park through the Stafford Borough Council (SBC) Local Plan process (report ref: **SAA-BWB-GEN-XX-RP-TR-0001_HN**). This Technical Note sets out the following details:

1. Background traffic growth
2. Trip rates and traffic generation
3. Traffic distribution
4. Junction Assessment
5. Summary

1.2 This Technical Note should be read in conjunction with the Transport Note.

2. HIGHWAY IMPACT**Background Traffic**

2.1 Historic traffic flow data has been obtained on the A34 from a Transport Assessment Addendum supporting a residential development at Udall Grange located on Eccleshall Road in Stone (**13/19002/OUT**). The planning application received permission for 500 dwellings in February 2015 and is now largely built out and occupied. The Transport Assessment Addendum contains turning count information from 2012 at the Aston Roundabout and Stafford Roundabout located on the A34 to the north of the allocation, which has been extracted and shown on **Diagram STO1**. Relevant extracts from the 2012 Transport Assessment Addendum are included at **Appendix A**.

2.2 The SBC Local Plan period extends to 2040 and therefore growth factors have been obtained from the TEMPro database. To start with, growth factors have been obtained to scale the 2012 flows to 2033, which includes all planning data assumptions during this time such as the Redhill Phase 2 development and is in keeping with the assessment undertaken in the Transport Note supporting allocations being promoted in Stafford. Separate growth factors have then been obtained to scale the 2033 flows to 2040 but with all planning data assumptions removed across Stafford, as it is considered that this would be covered by the allocations being promoted in both Stafford and Stone, that will be manually added onto the background flows to avoid double counting. **Appendix B** includes the TEMPro outputs, which calculate the following growth factors:

TECHNICAL NOTE

Stone Proposed Employment Local Plan Allocation – Modelling Work

- 2012 – 2033 (AM) = 1.243
- 2012 – 2033 (PM) = 1.245
- 2033 – 2040 (AM) = 1.044
- 2033 – 2040 (PM) = 1.042

2.3 Using the above information, the following traffic flow scenarios have been calculated.

- **Diagram STO1** = 2012 Observed Flows
- **Diagram STO2** = 2033 Base Flows
- **Diagram STO3** = 2040 Future Flows

Allocation Traffic Generation, Distribution and Assessment Scenarios

2.4 Employment trip rates from the Stafford SATURN model have been used to calculate the peak hour traffic generation that could be generated by the 412,000sqft (38,276sqm) employment allocation. These trip rates were agreed with the local highway authority and National Highways as part of the Redhill Phase 2 application and hence should continue to be acceptable for the purposes of this assessment. **Table 1** shows the trip rates (per 100sqm GFA) and the corresponding traffic generation based on a floor area of 412,000sqft (38,276sqm).

Table 1. Stone Allocation Trip Rates and Traffic Generation

	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
Trip Rates (per 100sqm GFA)						
Lights	0.098	0.025	0.123	0.030	0.089	0.119
HGVs	0.028	0.025	0.053	0.021	0.022	0.043
Total Veh.	0.126	0.050	0.176	0.051	0.111	0.162
Traffic Generation (38,276sqm)						
Lights	38	10	48	11	34	45
HGVs	11	10	21	8	8	16
Total Veh.	48	19	67	20	43	63
pcu	59	29	88	28	51	79

2.5 The details in **Table 1** show that the employment allocation is expected to generate up to 67 movements (or 88 pcus) in the morning peak hour and 63 movements (or 79 pcus) in the evening peak hour.

2.6 This traffic was assigned in general accordance with the agreed distribution pattern used for the Stafford allocations. However, traffic heading northbound on the M6 was assigned via Junction 15 (rather than Junction 14) and traffic heading to the east of Stafford was assigned via the A51 from Aston Roundabout (rather than via the A513 from Redhill Roundabout). Separate distribution patterns have been created for light and heavy vehicles. Hence, the following traffic flow diagrams have been created:

- **Diagram STO6** = development traffic distribution (light vehicles)
- **Diagram STO7** = development traffic distribution (HGVs)
- **Diagram STO8** = development traffic assignment (light vehicles)
- **Diagram STO9** = development traffic assignment (HGVs)

TECHNICAL NOTE

Stone Proposed Employment Local Plan Allocation – Modelling Work



- **Diagram STO10** = 2040 Future Year + Employment Allocation
- **Diagram STO11** = 2040 Future Year + Employment Allocation + Stafford Allocations (Option 1)
- **Diagram STO12** = 2040 Future Year + Employment Allocation + Stafford Allocations (Option 2)

2.7 The Transport Note supporting the Stafford allocations used background traffic flows from the Stafford SATURN model. The 2040 traffic flows shown at **Diagram STO3**, derived from 2012 survey data, have been compared against 2040 flows derived using Stafford SATURN flows. This shows that the 2040 flows from the 2012 counts undertaken as part of the Udall Grange development could be 13% lower compared to the SATURN model flows. This could be because of additional traffic joins the A34 towards Stafford from local villages or because traffic flows simply reduced from 2007 to 2012 when the two surveys were undertaken. As this is currently unknown, a separate sensitivity test has undertaken to account for this difference.

Junction Assessment

2.8 The following section considers the traffic impacts of the employment allocation on the surrounding network, focusing on the new signal-controlled access junction, Aston Roundabout and Stafford Roundabout. In terms of the new site access junction, the assessment also considers the traffic impacts cumulatively alongside the Stafford allocations.

Junction 1: Signal-Controlled Access Junction

2.9 The new signal-controlled access junction shown at **Drawing Number SAA-BWB-ZZ-XX-DR-TR-0001 Revision P1** has been tested for capacity using industry standard LinSig software. As the junction would form part of any future proposals, the model has been built using the geometric information on the drawing with cycle times and signal timings optimised for maximum efficiency. **Appendix C** includes the full LinSig output data, whilst **Table 2** summarises the results. This includes a sensitivity test that increases the ahead movements on the A34 in both directions by 13% to account for the potential reduction in base traffic.

Table 2: Signal-Controlled Access LinSig Summary Results

	Morning Peak Hour		Evening Peak Hour	
	MMQ (pcu)	DoS (%)	MMQ (pcu)	DoS (%)
2040 Future Year + Stone Allocation				
A34 (N)	17.7	73.8	8.3	45.8
Site Access	0.3	5.2	0.5	13.1
A34 (S)	9.0	48.2	16.1	69.6
PRC	22.0%		29.4%	
2040 + Development + Stafford Allocation (Development Option 1)				
A34 (N)	19.0	76.4	8.9	48.1
Site Access	0.3	5.2	0.5	13.1
A34 (S)	9.7	51.0	17.2	71.7
PRC	17.9%		25.5%	
2040 + Development + Stafford Allocation (Development Option 2)				
A34 (N)	19.5	77.0	8.9	48.3
Site Access	0.3	5.2	0.5	13.1
A34 (S)	10.0	51.4	17.4	72.4
PRC	16.9%		24.3%	
Sensitivity Test				
A34 (N)	23.1	82.9	9.9	51.5
Site Access	0.3	5.2	0.5	13.1
A34 (S)	10.7	54.2	20.3	78.4
PRC	8.5%		14.8%	

2.10 The results show that the signal-controlled access would operate comfortably within capacity even with background traffic increased by 13% as an absolute worst-case.

Junction 2: Aston Roundabout

2.11 The Aston Roundabout was modelled as part of the Transport Assessment Addendum supporting the Udall Grange development. The assessment considered a future year of 2027 inclusive of local committed developments and the associated 500 dwellings. The results showed that the junction would exceed capacity and hence mitigation was proposed. Those improvements have since been delivered and are what are shown on the ground today. The modelling results under the improved layout within the Transport Assessment Addendum (now existing) are summarised in **Table 3**.

Table 3: Aston Roundabout Modelling Results (2027 Future Year)

Approach	2017 with 185 units				2027 with 500 units			
	AM Peak		PM Peak		AM Peak		PM Peak	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A34 Stafford Road north	0.777	3	0.517	1	0.855	6	0.566	1
A51	0.737	3	0.292	0	0.883	6	0.343	1
A34 Stafford Road south	0.473	1	0.602	2	0.514	1	0.638	2
Brooms Road	0.118	0	0.654	2	0.129	0	0.760	3

- 2.12 The results show the junction is forecast to operate within capacity at the 2027 future year, inclusive of general background growth and the Udall Grange development. Therefore, it is likely that the junction will be over capacity in 2040.
- 2.13 HS2 has proposals to deliver further improvements to Aston Roundabout as part of the strategy for mitigating the impacts of construction traffic associated with their nearby site works. Indicative proposals have been found on HS2 drawing CT-05-220-R2 included at **Appendix D**, which show how a segregated left turn lane would be provided for movements from the A51 to the A34 southbound. By 2040, construction of HS2 will have been completed and the improvement scheme will result in an overall benefit to the operation of the junction.
- 2.14 To understand the impacts of the potential Stone development **Table 4** compares the traffic flows on each arm between the 2040 future year (**Diagram 3**) and the 2040 future year + development (**Diagram 8**) flows.

Table 4: Percentage Change in Traffic Flows at Aston Roundabout (Stone Development)

2015	2040 Future Year	2040 Future Year + Employment Allocation	Increase (no./%)
Arm 1: A34(N)			
Morning Peak Hour	2392	2414	1%
Evening Peak Hour	1474	1483	1%
Arm 2: A51			
Morning Peak Hour	1073	1080	1%
Evening Peak Hour	602	606	1%
Arm 3: A34(S)			
Morning Peak Hour	1142	1154	1%
Evening Peak Hour	1684	1709	1%
Arm 4: Brooms Road			
Morning Peak Hour	224	224	0%
Evening Peak Hour	686	686	0%

- 2.15 The results show that the Stone Development is expected to increase total movements on each arm of Aston Roundabout by a maximum of 1%. This level of additional impact reflects typical daily fluctuation and would result in a minimal change in conditions.

TECHNICAL NOTE**Stone Proposed Employment Local Plan Allocation – Modelling Work**

Hence, it is considered that the existing junction layout would be sufficient, although further mitigation through widening of the approach arms could be delivered, if required.

Junction 3: Stafford Roundabout

- 2.16 The Stafford Roundabout was also modelled as part of the Transport Assessment Addendum supporting the Udall Grange development at a future year of 2027. The results showed that the junction would exceed capacity and hence mitigation was proposed. Those improvements have since been delivered and are what are shown on the ground today. The modelling results under the improved layout within the Transport Assessment (now existing) are summarised in **Table 6**.

Table 6: Stafford Roundabout Modelling Results (2027 Future Year)

Approach	2017 with 185 units				2027 with 500 units			
	AM Peak		PM Peak		AM Peak		PM Peak	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A34 The Fillybrooks north	0.941	12	0.781	2	1.086	81	0.878	6
Stafford Road	0.741	3	0.578	1	0.867	6	0.578	1
A34 The Fillybrooks south	0.529	1	0.858	3	0.567	1	0.858	6
Eccleshall Road	0.554	1	0.655	1	0.709	2	0.655	2

- 2.17 The results show that all arms of the junction are expected to operate within capacity with the exception of the A34(N) arm during the morning peak hour. The performance of the junction is expected to worsen at 2040 with an additional 13 years of growth.
- 2.18 To understand the potential impacts of the Stone development, **Table 7** compares the traffic flows on each arm between the 2040 future year (**Diagram 3**) and the 2040 future year + development (**Diagram 8**) flows. For the purposes of this assessment, it is assumed that of the 44% (morning peak hour) and 35% (evening peak hour) of development traffic heading towards the roundabout from the A34(S), 5% would turn right towards Stafford Road with the remaining continuing along the A34. The precise distribution would be confirmed as part of any future Transport Assessment but at this stage this is considered reasonable.

Table 7: Percentage Change in Traffic Flows at Stafford Roundabout (Stone Development)

	2040 Future Year	2040 Future Year + Employment Allocation	Increase (no./%)
Arm 1: A34(N)			
Morning Peak Hour	1527	1548	1%
Evening Peak Hour	1273	1280	1%
Arm 2: Stafford Road			
Morning Peak Hour	1104	1106	0%
Evening Peak Hour	921	922	0%
Arm 3: A34(S)			
Morning Peak Hour	1532	1542	1%
Evening Peak Hour	2279	2296	1%
Arm 4: Eccleshall Road			
Morning Peak Hour	963	963	0%
Evening Peak Hour	704	704	0%

2.19 The data shows that the Stone development would have a negligible increase in movements on any arm of the junction, with a worst-case impact of 1% on the A34 arms. This level of impact would unlikely have any severe impacts on the roundabout and would be well within typical daily fluctuations.

A34 South

2.20 Approximately, 40% of the proposed allocation traffic would route south via the A34 corridor, which would equate to a maximum of 27 additional two-way vehicular movements (or 35 pcus). This is a minimal increase which would have little effect on the operation of the highway network in this direction.

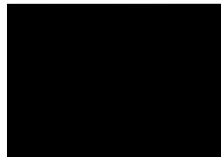
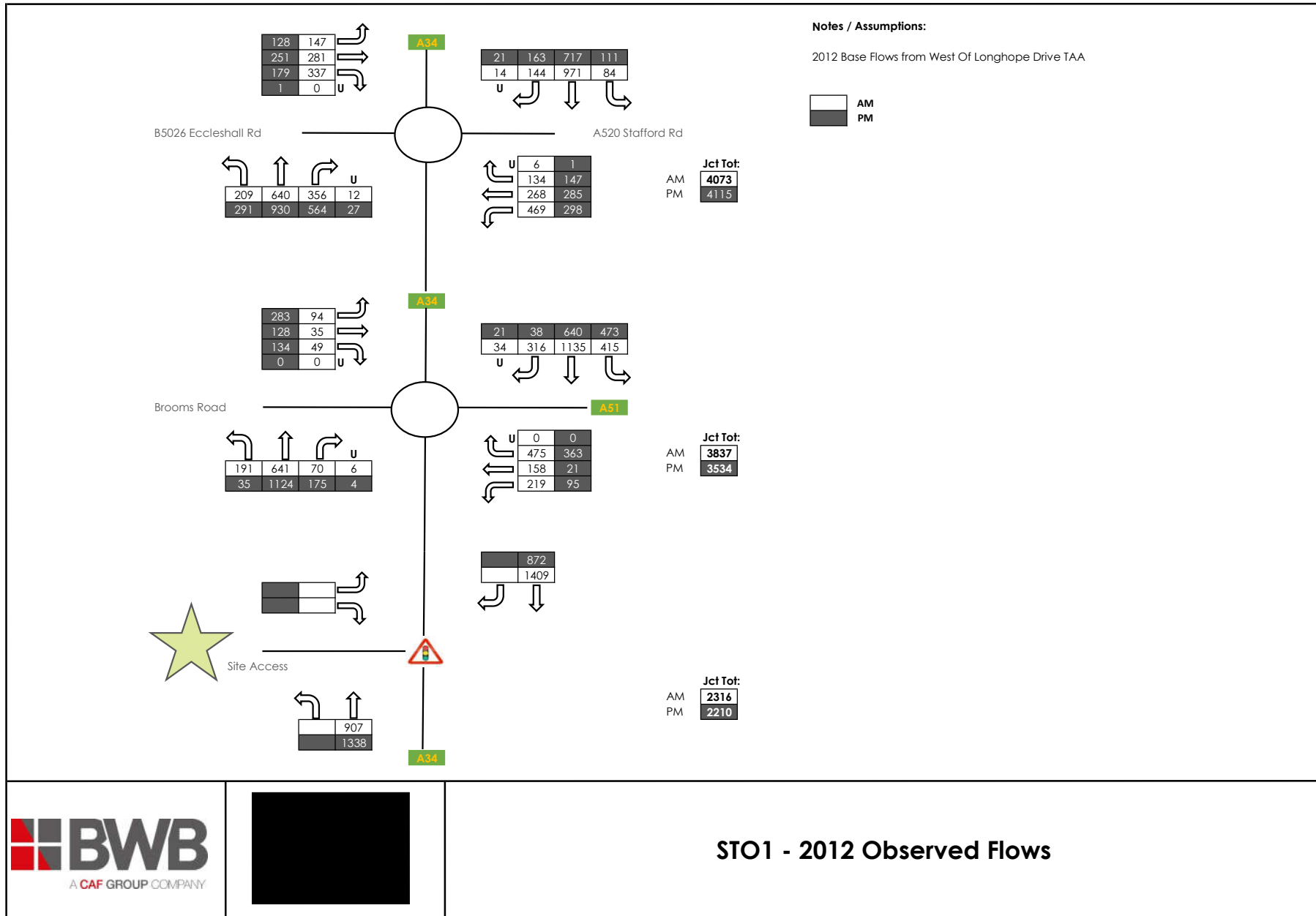
3. SUMMARY

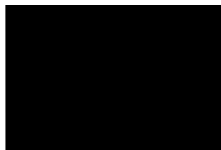
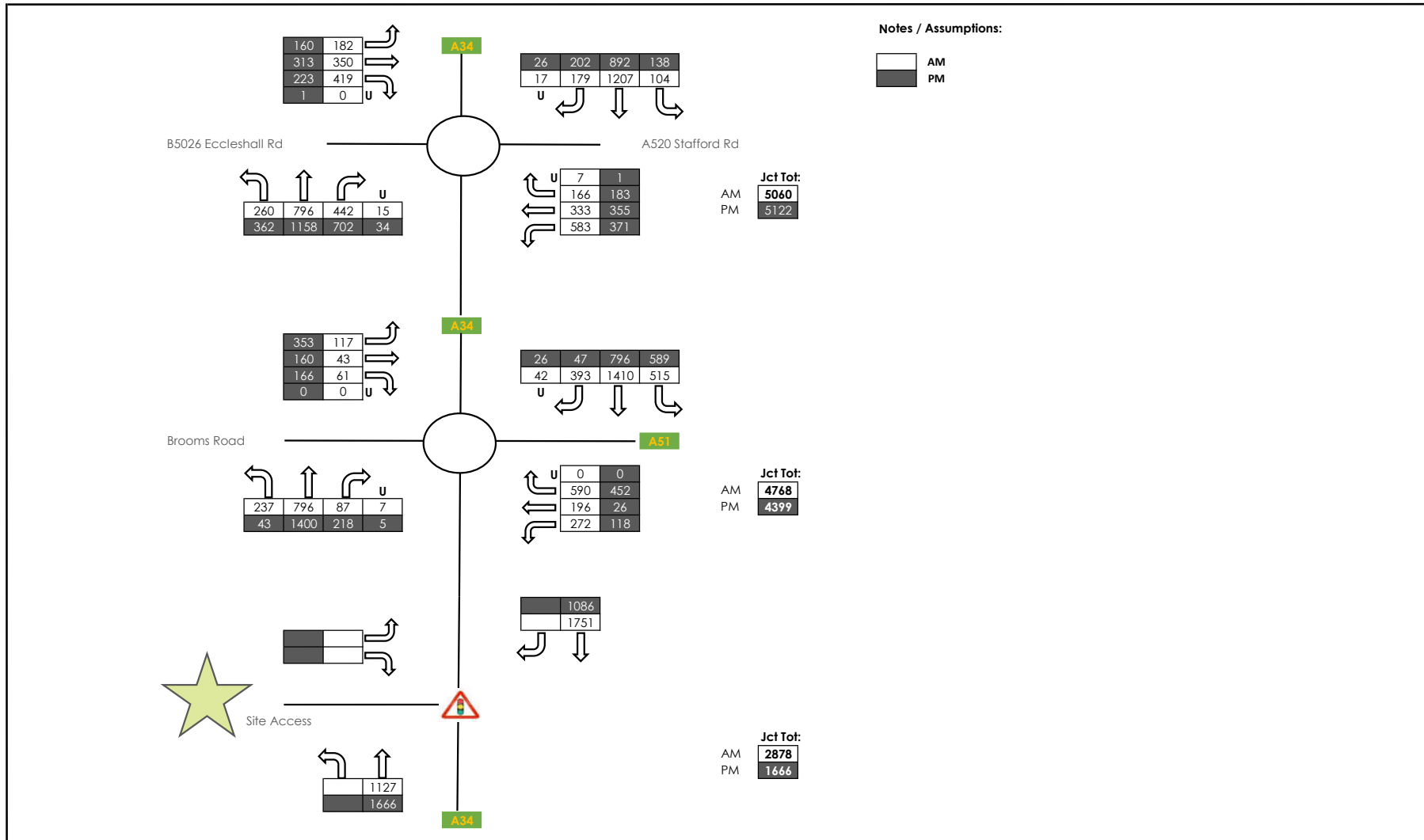
3.1 This Technical Note has been prepared to set out full details of the modelling work undertaken to support the employment allocation at Stone through the SBC Local Plan process.

3.2 The main conclusions of the Technical Note are as follows:

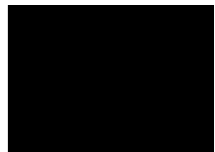
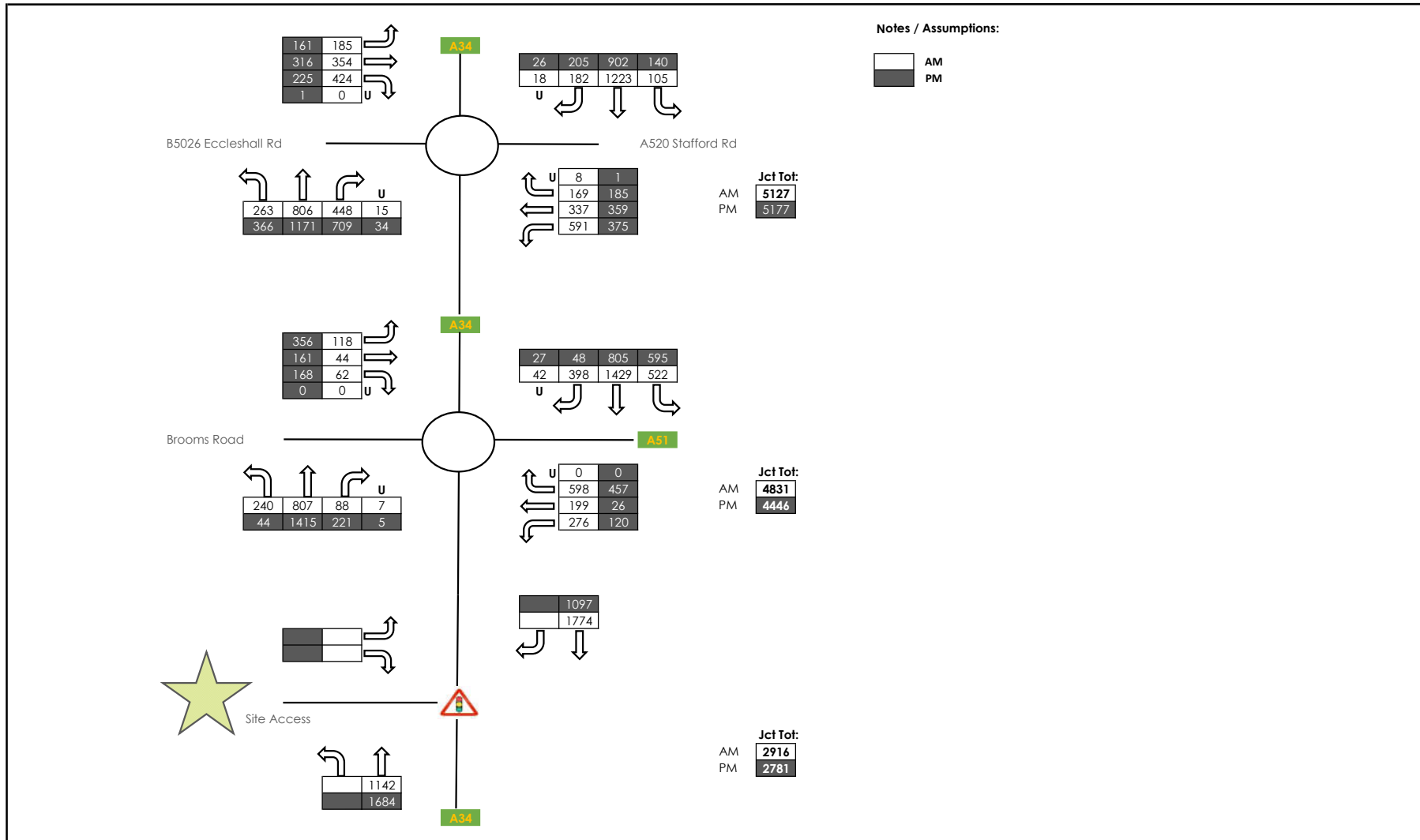
1. The new signal-controlled junction would have suitable capacity to accommodate future year traffic flows.
2. The employment allocation is expected to have a minimal impact on the surrounding highway network increasing traffic flows by 1% at nearby junctions. However, as the Aston Roundabout and Stafford Roundabout could be operating at capacity already at 2040 some mitigation may be required, although this is likely to be minor.

TRAFFIC FLOW DIAGRAMS

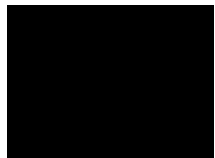
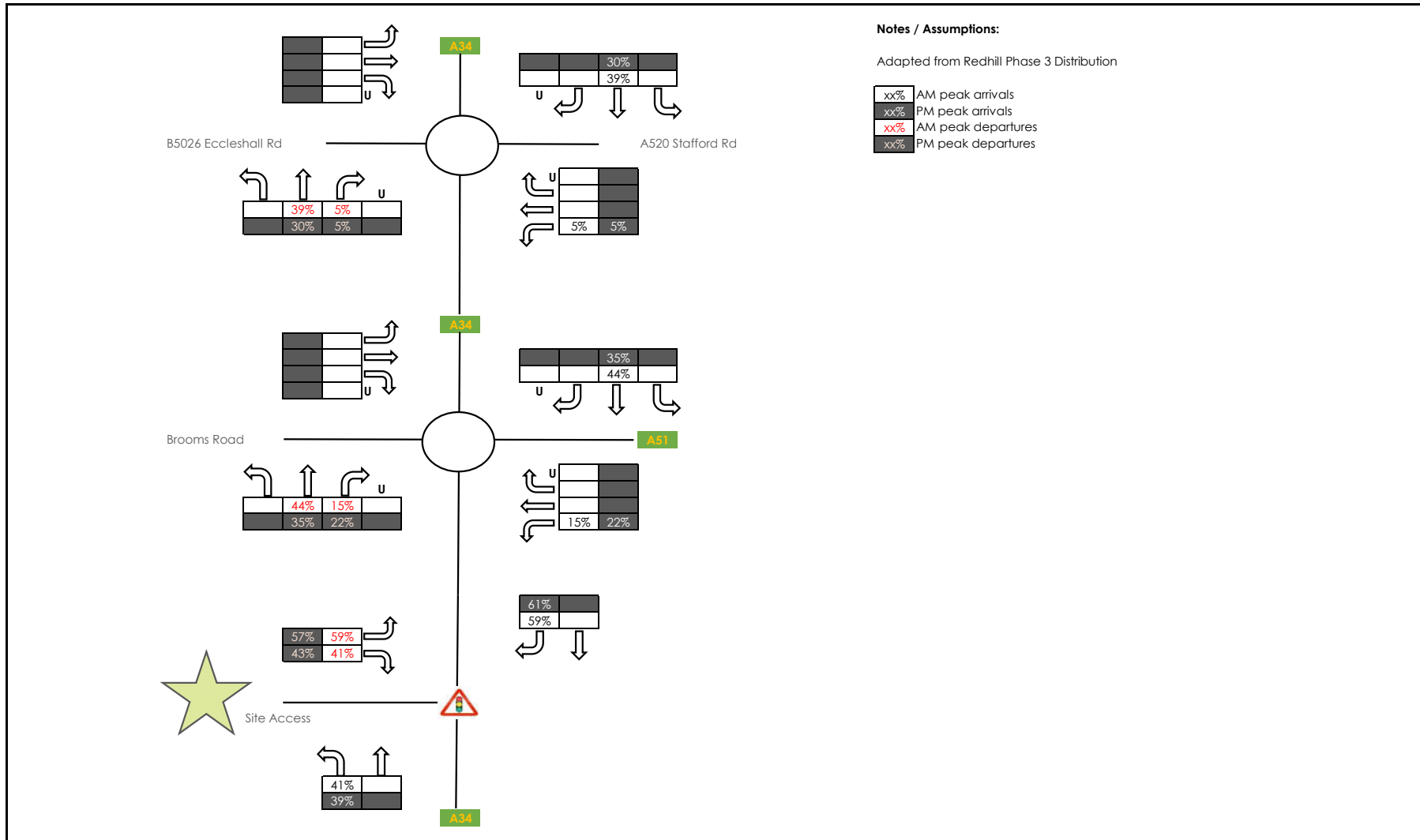




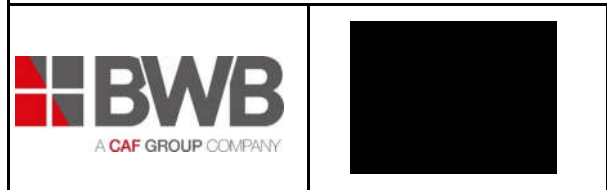
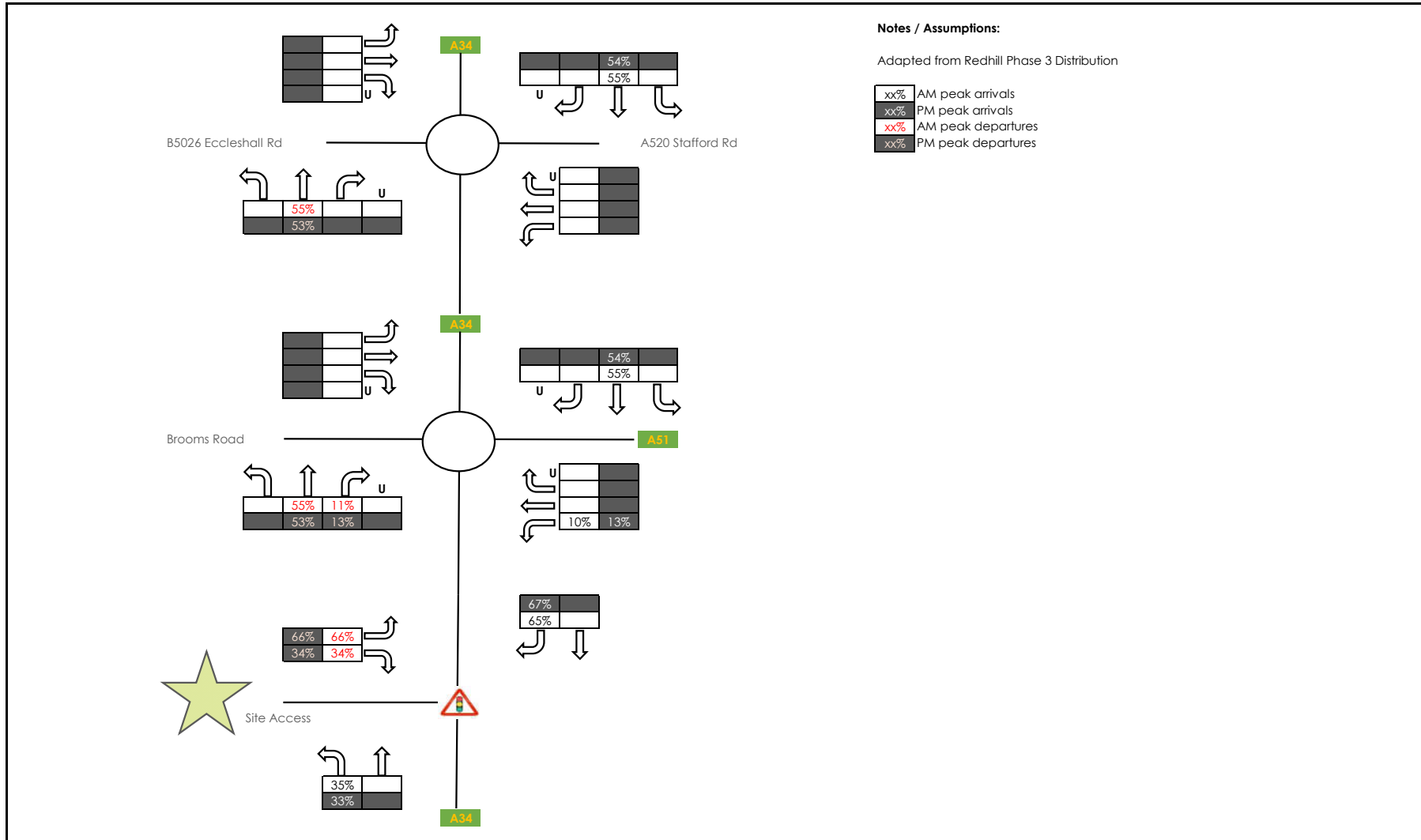
STO2 - 2033 Base Flows



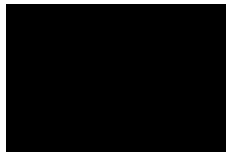
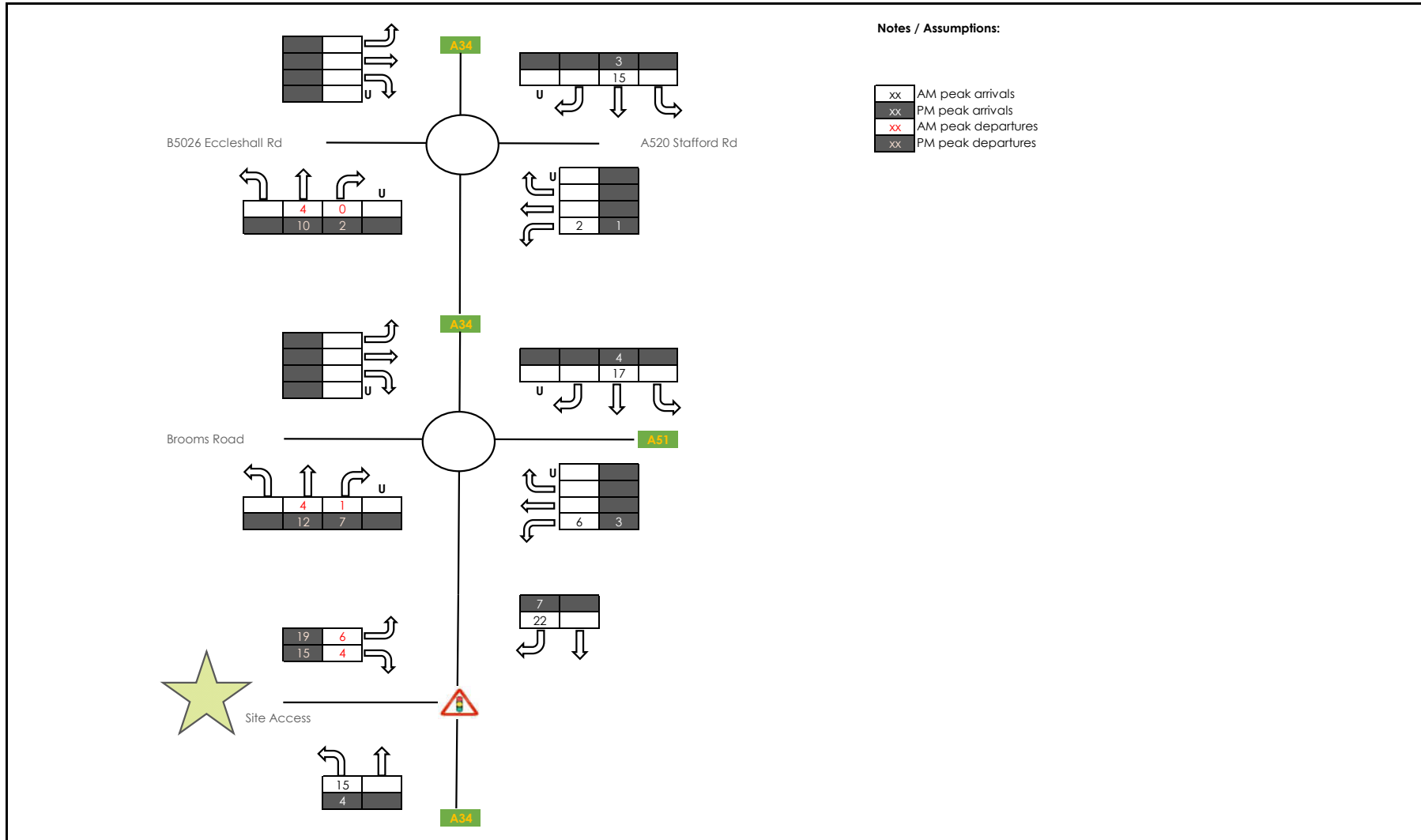
STO3 - 2040 Observed Flows



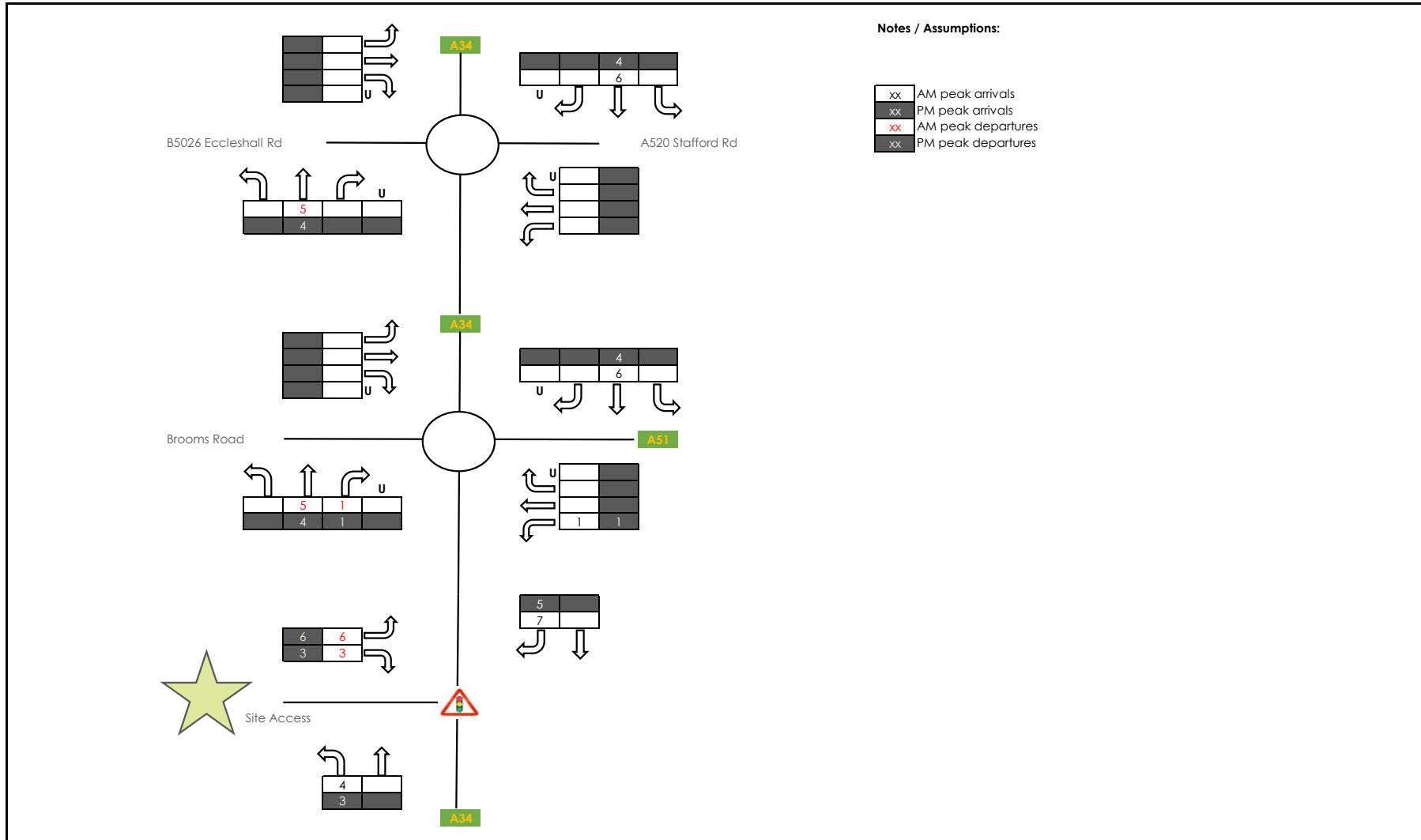
STO6 - Development Traffic Distribution (light vehicles)



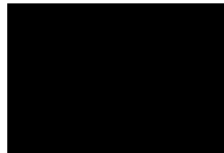
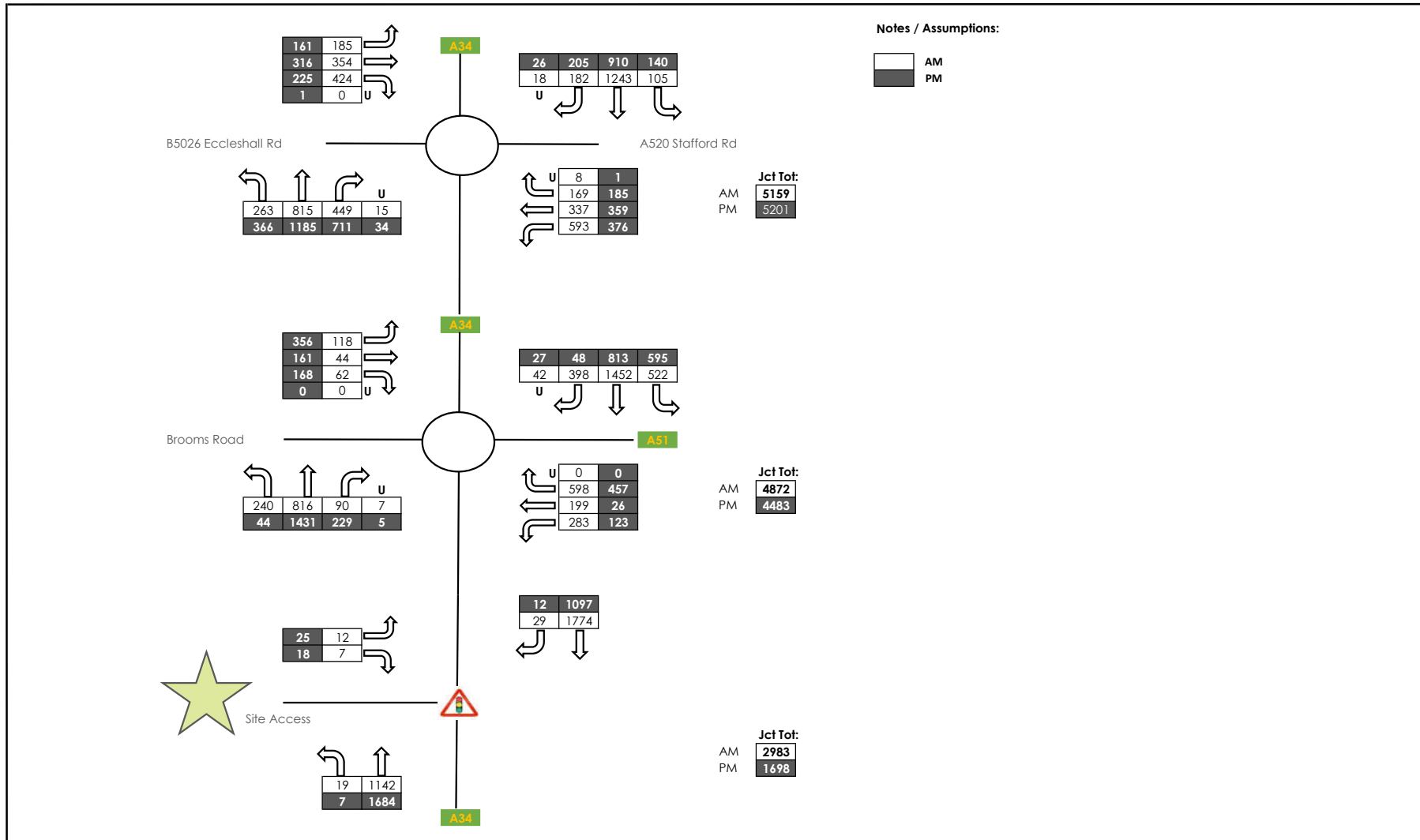
STO7 - Development Traffic Distribution (HGVs)

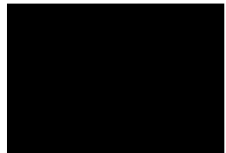
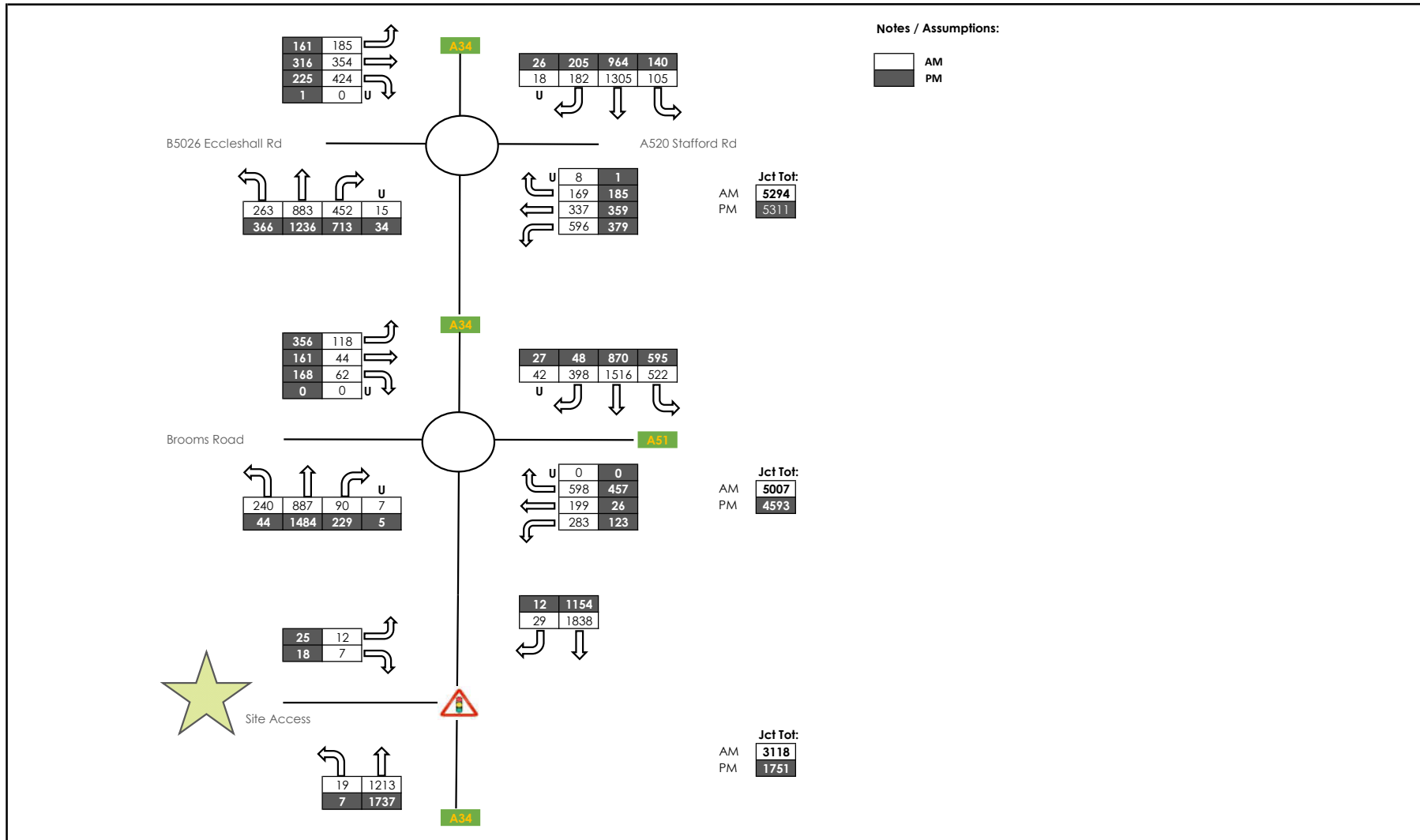


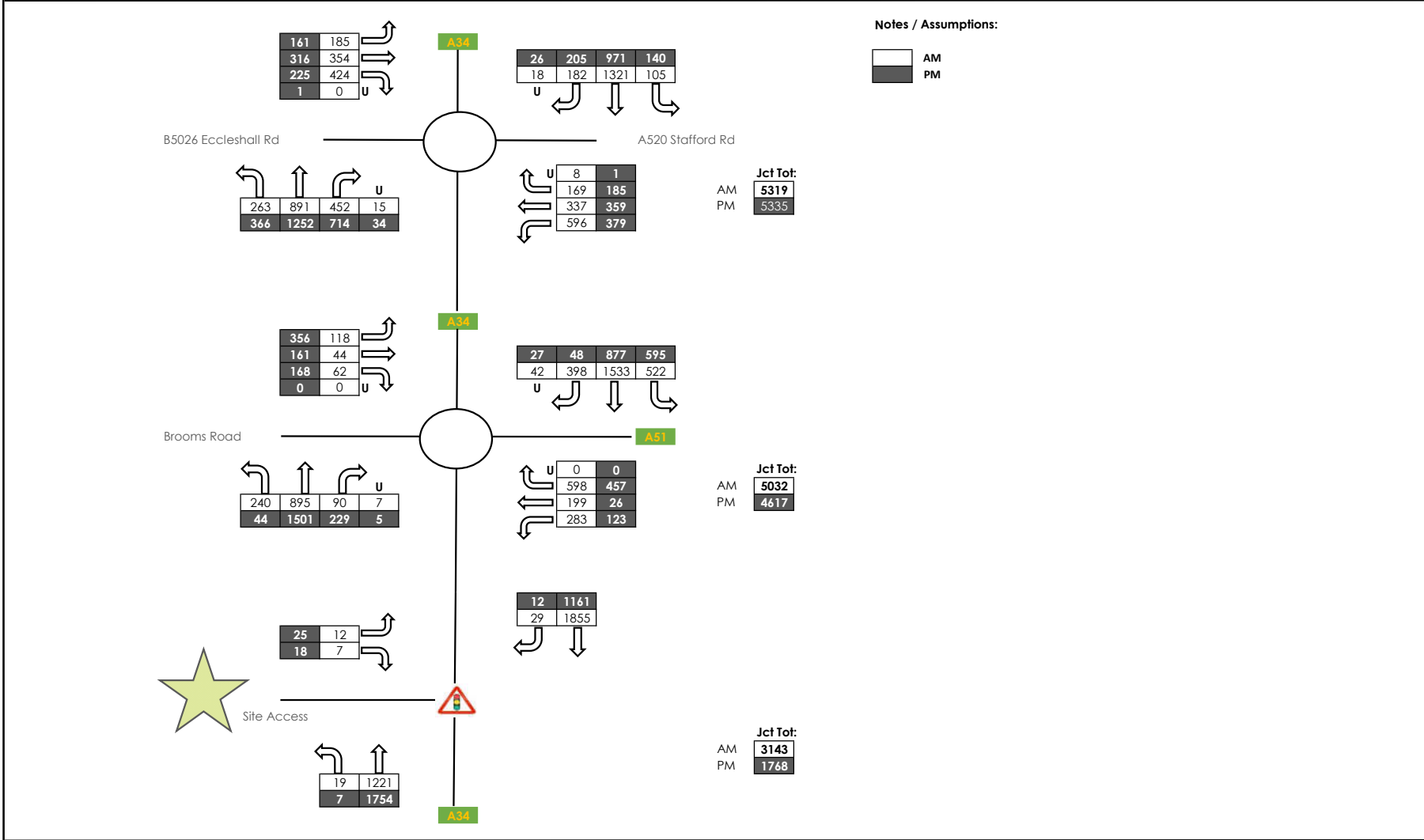
STO8 - Development Traffic Assignment (Light Vehicles)



STO9 - Development Traffic Assignment (HGVs)







STO12 - 2040 Future Year + Development + Stafford Option 2

APPENDICES

APPENDIX A: Extracts from Eccleshall Road Development Transport Assessment



Walton Hill, Stone

Addendum Transport Assessment

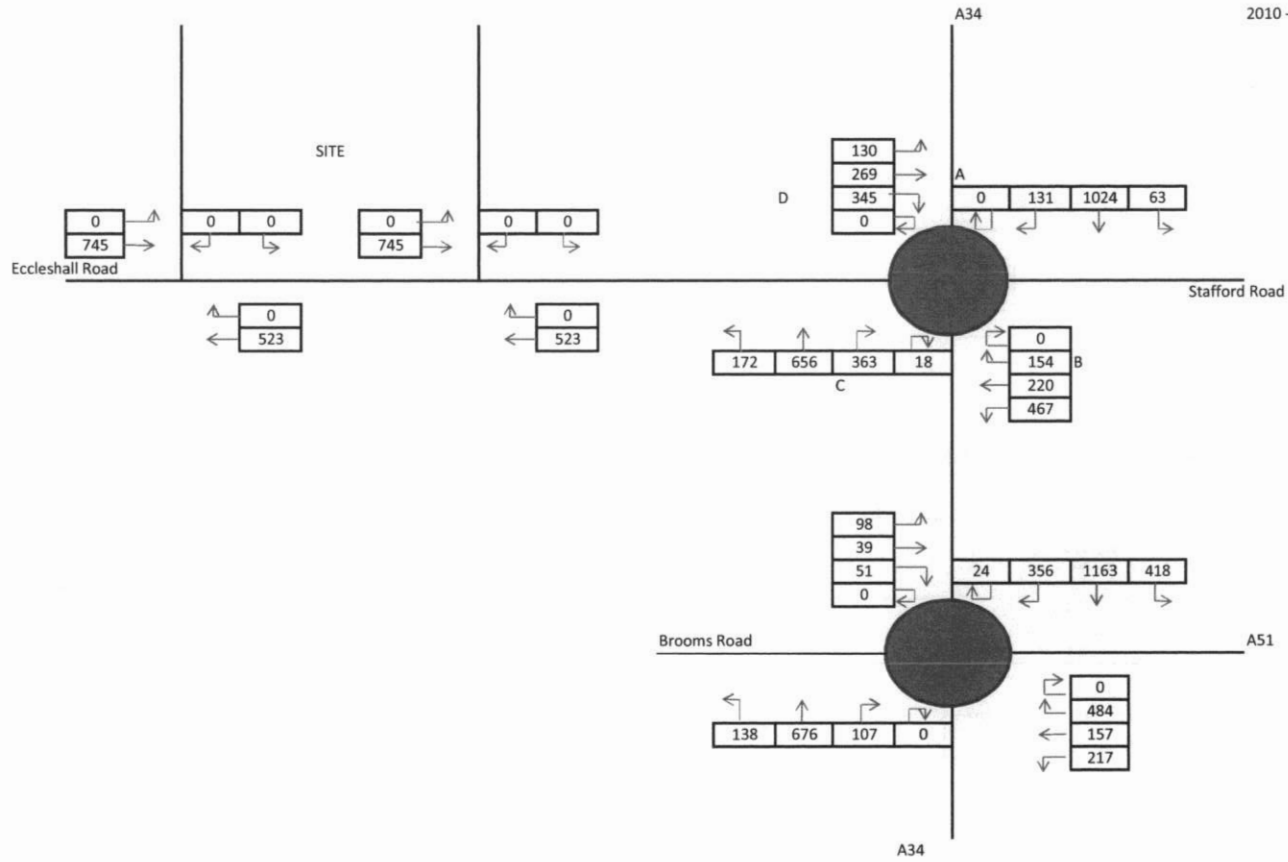
February 2013

Waterman Transport & Development Limited



Base 2012 Traffic Flows - AM Peak Hour
TRN10069

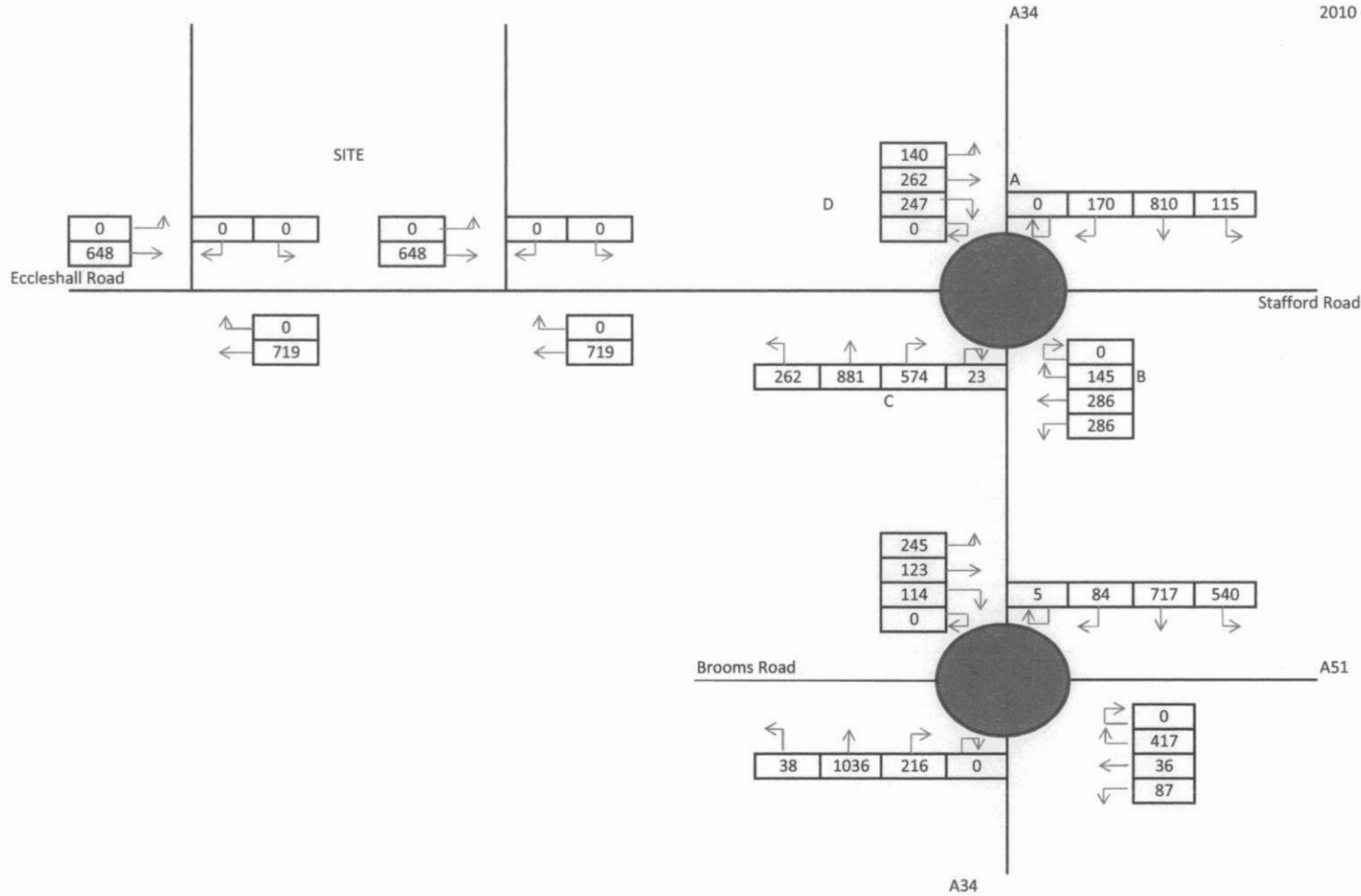
2010 - 2012 Growth Factor - 1.02





Base 2012 Traffic Flows - PM Peak Hour
TRN10069

2010 - 2012 Growth Factor - 1.02



APPENDIX B: TEMPro Growth Factors TRICS Output Data

2012 - 2033

AM Peak		
Level	Area	Local Growth Figure
Authority	Stafford	1.242467088

PM Peak		
Level	Area	Local Growth Figure
Authority	Stafford	1.244879645

2033 - 2040

AM Peak		
Level	Area	Local Growth Figure
Authority	Stafford	1.043921068

PM Peak		
Level	Area	Local Growth Figure
Authority	Stafford	1.042062664

Base Year

Area Description	Name	< 16	16 to 74	75+	Total
Authority	Stafford	22097	98491	21361	141948

Future Year

Area Description	Name	< 16	16 to 74	75+	Total
Authority	Stafford	22315	100126	22855	145296

Future Year minus Base Year

Area Description	Name	< 16	16 to 74	75+	Total
Authority	Stafford	711	3551	11763	16026

AM Peak		
Level	Area	Local Growth Figure
Authority	Stafford	1.013282507

PM Peak		
Level	Area	Local Growth Figure
Authority	Stafford	1.010670696

TECHNICAL NOTE

Stone Proposed Employment Local Plan Allocation – Modelling Work



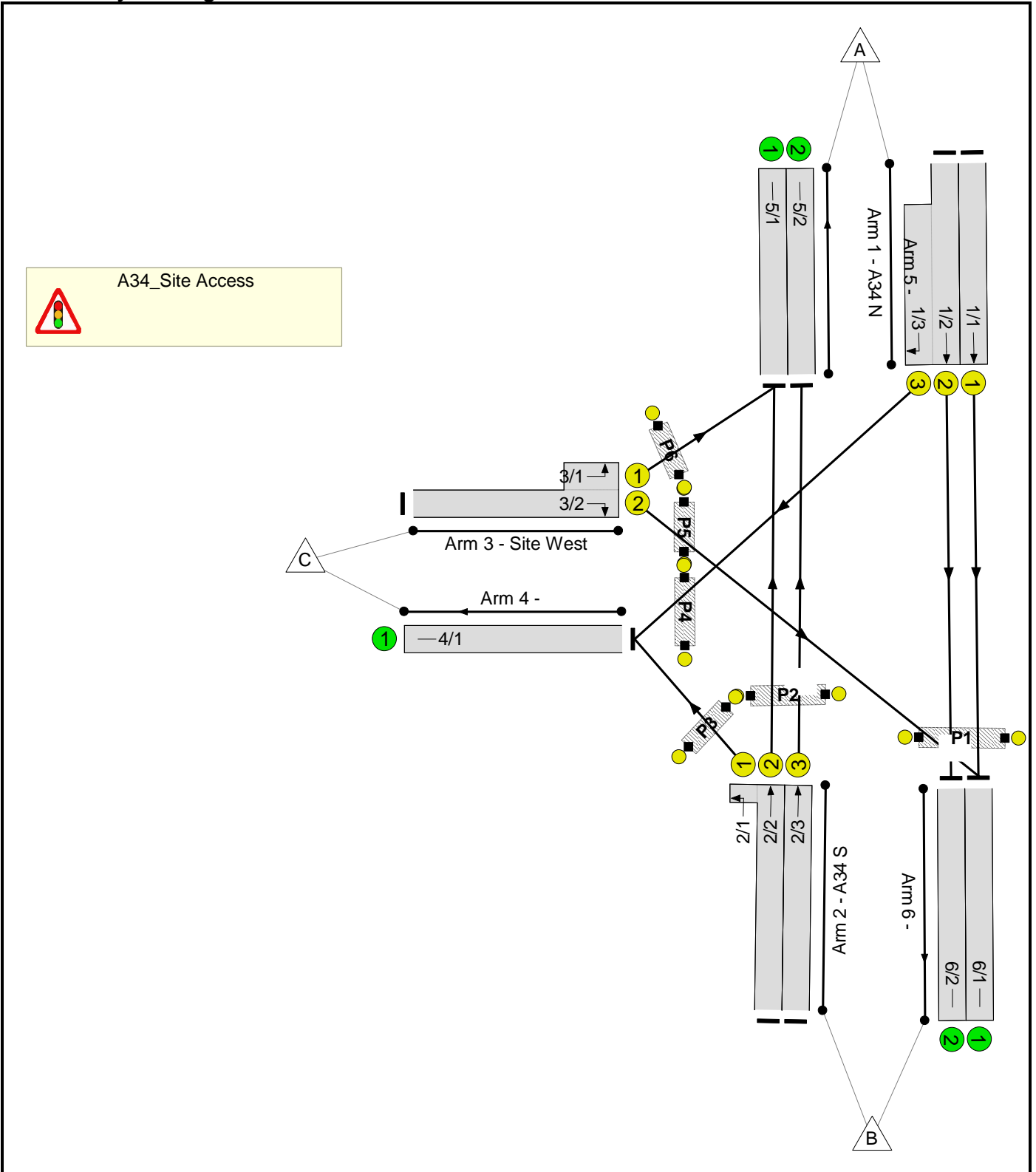
APPENDIX C: LinSig Output Data (Site Access)

Full Input Data And Results

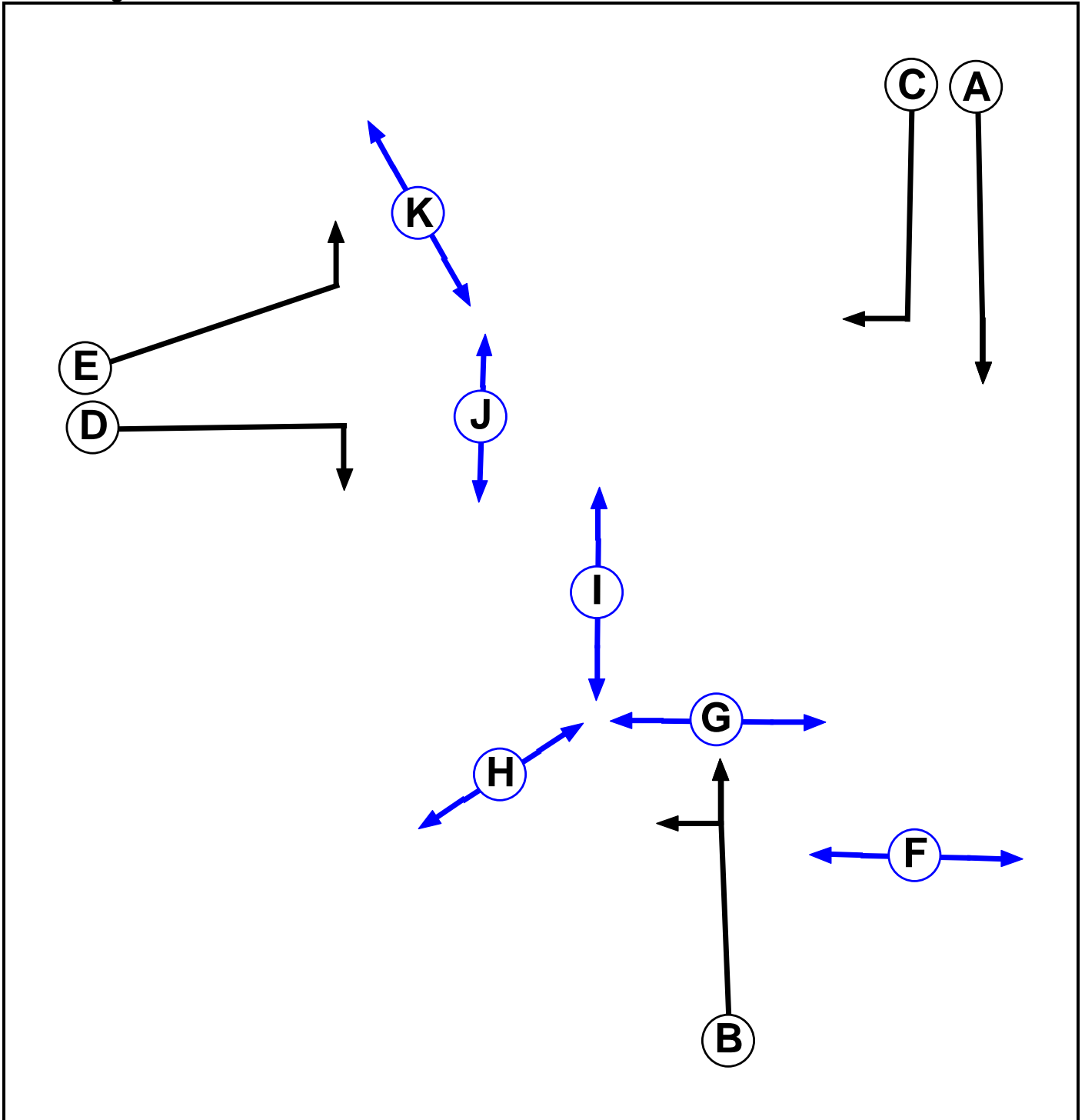
Full Input Data And Results**User and Project Details**

Project:	A34 Stone Access Appraisal
Title:	Signal Junction Option
Location:	
Additional detail:	
File name:	A34_Site Access (AJ).lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		7	7
F	Pedestrian		5	5
G	Pedestrian		5	5
H	Pedestrian		5	5
I	Pedestrian		5	5
J	Pedestrian		5	5
K	Pedestrian		5	5

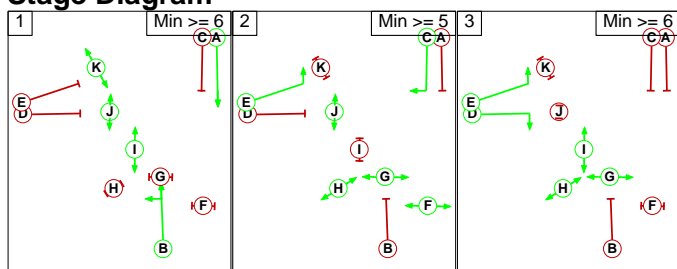
Phase Intergreens Matrix

	Starting Phase											
	A	B	C	D	E	F	G	H	I	J	K	
Terminating Phase	A	-	-	7	-	9	-	-	-	-	-	-
B	-		6	6	8	-	5	5	-	-	-	-
C	-	6		6	-	-	-	-	9	-	-	-
D	8	6	5		-	8	-	-	-	5	-	-
E	-	5	-	-		-	-	-	-	-	5	-
F	8	-	-	8	-		-	-	-	-	-	-
G	-	8	-	-	-	-		-	-	-	-	-
H	-	5	-	-	-	-	-		-	-	-	-
I	-	-	5	-	-	-	-	-		-	-	-
J	-	-	-	5	-	-	-	-	-		-	-
K	-	-	-	-	5	-	-	-	-	-		-

Phases in Stage

Stage No.	Phases in Stage
1	A B I J K
2	C E F G H J
3	D E G H I

Stage Diagram



Full Input Data And Results

Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

		To Stage		
		1	2	3
From Stage	1		9	8
	2	9		9
	3	8	8	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A34_Site Access
There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: A34_Site Access												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A34 N)	U	A	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 6 Ahead	Inf
1/2 (A34 N)	U	A	2	3	60.0	Geom	-	3.65	0.00	N	Arm 6 Ahead	Inf
1/3 (A34 N)	U	C	2	3	9.0	Geom	-	3.65	0.00	Y	Arm 4 Right	15.00
2/1 (A34 S)	U	B	2	3	1.0	Geom	-	3.65	0.00	Y	Arm 4 Left	20.00
2/2 (A34 S)	U	B	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 5 Ahead	Inf
2/3 (A34 S)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm 5 Ahead	Inf
3/1 (Site West)	U	E	2	3	3.0	Geom	-	4.00	0.00	Y	Arm 5 Left	15.00
3/2 (Site West)	U	D	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 6 Right	30.00
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/2	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2040 Base + Stone Phase 1 AM'	08:00	09:00	01:00	
2: '2040 Base + Stone Phase 1 PM'	17:00	18:00	01:00	
3: '2040 Base+13% + Stone Phase 1 AM'	08:00	09:00	01:00	
4: '2040 Base+13% + Stone Phase 1 PM'	17:00	18:00	01:00	
5: '2040 Base + Redhill (1m sqft) + Stone Phase 1 AM'	08:00	09:00	01:00	
6: '2040 Base + Redhill (1m sqft) + Stone Phase 1 PM'	17:00	18:00	01:00	
7: '2040 Base + Redhill (1.7m sqft) + Stone Phase 1 AM'	08:00	09:00	01:00	
8: '2040 Base + Redhill (1.7m sqft) + Stone Phase 1 PM'	17:00	18:00	01:00	
9: '2040 Base+13% + Stone Full Dev AM'	08:00	09:00	01:00	
10: '2040 Base+13% + Stone Full Dev PM'	17:00	18:00	01:00	

Full Input Data And Results

Scenario 1: '2040 Base + Stone Phase 1 AM' (FG1: '2040 Base + Stone Phase 1 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired**Desired Flow :**

	Destination				
	A	B	C	Tot.	
Origin	A	0	1774	29	1803
	B	1142	0	19	1161
	C	12	7	0	19
	Tot.	1154	1781	48	2983

Traffic Lane Flows

Lane	Scenario 1: 2040 Base + Stone Phase 1 AM
Junction: A34_Site Access	
1/1	855
1/2 (with short)	948(In) 919(Out)
1/3 (short)	29
2/1 (short)	19
2/2 (with short)	548(In) 529(Out)
2/3	613
3/1 (short)	12
3/2 (with short)	19(In) 7(Out)
4/1	48
5/1	541
5/2	613
6/1	862
6/2	919

Full Input Data And Results

Lane Saturation Flows

Junction: A34_Site Access								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A34 N)	3.65	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1980	1980
1/2 (A34 N)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
1/3 (A34 N)	3.65	0.00	Y	Arm 4 Right	15.00	100.0 %	1800	1800
2/1 (A34 S)	3.65	0.00	Y	Arm 4 Left	20.00	100.0 %	1842	1842
2/2 (A34 S)	3.65	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1980	1980
2/3 (A34 S)	3.65	0.00	N	Arm 5 Ahead	Inf	100.0 %	2120	2120
3/1 (Site West)	4.00	0.00	Y	Arm 5 Left	15.00	100.0 %	1832	1832
3/2 (Site West)	3.65	0.00	Y	Arm 6 Right	30.00	100.0 %	1886	1886
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2040 Base + Stone Phase 1 PM' (FG2: '2040 Base + Stone Phase 1 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	1097	12	1109
	B	1684	0	7	1691
	C	25	18	0	43
	Tot.	1709	1115	19	2843

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2040 Base + Stone Phase 1 PM
Junction: A34_Site Access	
1/1	521
1/2 (with short)	588(In) 576(Out)
1/3 (short)	12
2/1 (short)	7
2/2 (with short)	806(In) 799(Out)
2/3	885
3/1 (short)	25
3/2 (with short)	43(In) 18(Out)
4/1	19
5/1	824
5/2	885
6/1	539
6/2	576

Full Input Data And Results

Lane Saturation Flows

Junction: A34_Site Access								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A34 N)	3.65	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1980	1980
1/2 (A34 N)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
1/3 (A34 N)	3.65	0.00	Y	Arm 4 Right	15.00	100.0 %	1800	1800
2/1 (A34 S)	3.65	0.00	Y	Arm 4 Left	20.00	100.0 %	1842	1842
2/2 (A34 S)	3.65	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1980	1980
2/3 (A34 S)	3.65	0.00	N	Arm 5 Ahead	Inf	100.0 %	2120	2120
3/1 (Site West)	4.00	0.00	Y	Arm 5 Left	15.00	100.0 %	1832	1832
3/2 (Site West)	3.65	0.00	Y	Arm 6 Right	30.00	100.0 %	1886	1886
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2040 Base + Redhill (1m sqft) + Stone Phase 1 AM' (FG5: '2040 Base + Redhill (1m sqft) + Stone Phase 1 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	1838	29	1867
	B	1213	0	19	1232
	C	12	7	0	19
	Tot.	1225	1845	48	3118

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: 2040 Base + Redhill (1m sqft) + Stone Phase 1 AM
Junction: A34_Site Access	
1/1	886
1/2 (with short)	981(In) 952(Out)
1/3 (short)	29
2/1 (short)	19
2/2 (with short)	583(In) 564(Out)
2/3	649
3/1 (short)	12
3/2 (with short)	19(In) 7(Out)
4/1	48
5/1	576
5/2	649
6/1	893
6/2	952

Full Input Data And Results

Lane Saturation Flows

Junction: A34_Site Access								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A34 N)	3.65	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1980	1980
1/2 (A34 N)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
1/3 (A34 N)	3.65	0.00	Y	Arm 4 Right	15.00	100.0 %	1800	1800
2/1 (A34 S)	3.65	0.00	Y	Arm 4 Left	20.00	100.0 %	1842	1842
2/2 (A34 S)	3.65	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1980	1980
2/3 (A34 S)	3.65	0.00	N	Arm 5 Ahead	Inf	100.0 %	2120	2120
3/1 (Site West)	4.00	0.00	Y	Arm 5 Left	15.00	100.0 %	1832	1832
3/2 (Site West)	3.65	0.00	Y	Arm 6 Right	30.00	100.0 %	1886	1886
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2040 Base + Redhill (1m sqft) + Stone Phase 1 PM' (FG6: '2040 Base + Redhill (1m sqft) + Stone Phase 1 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	1154	12	1166
	B	1737	0	7	1744
	C	25	18	0	43
	Tot.	1762	1172	19	2953

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2040 Base + Redhill (1m sqft) + Stone Phase 1 PM
Junction: A34_Site Access	
1/1	549
1/2 (with short)	617(In) 605(Out)
1/3 (short)	12
2/1 (short)	7
2/2 (with short)	832(In) 825(Out)
2/3	912
3/1 (short)	25
3/2 (with short)	43(In) 18(Out)
4/1	19
5/1	850
5/2	912
6/1	567
6/2	605

Full Input Data And Results

Lane Saturation Flows

Junction: A34_Site Access								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A34 N)	3.65	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1980	1980
1/2 (A34 N)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
1/3 (A34 N)	3.65	0.00	Y	Arm 4 Right	15.00	100.0 %	1800	1800
2/1 (A34 S)	3.65	0.00	Y	Arm 4 Left	20.00	100.0 %	1842	1842
2/2 (A34 S)	3.65	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1980	1980
2/3 (A34 S)	3.65	0.00	N	Arm 5 Ahead	Inf	100.0 %	2120	2120
3/1 (Site West)	4.00	0.00	Y	Arm 5 Left	15.00	100.0 %	1832	1832
3/2 (Site West)	3.65	0.00	Y	Arm 6 Right	30.00	100.0 %	1886	1886
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

Scenario 5: '2040 Base + Redhill (1.7m sqft) + Stone Phase 1 AM' (FG7: '2040 Base + Redhill (1.7m sqft) + Stone Phase 1 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	1855	29	1884
	B	1221	0	19	1240
	C	12	7	0	19
	Tot.	1233	1862	48	3143

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: 2040 Base + Redhill (1.7m sqft) + Stone Phase 1 AM
Junction: A34_Site Access	
1/1	895
1/2 (with short)	989(In) 960(Out)
1/3 (short)	29
2/1 (short)	19
2/2 (with short)	586(In) 567(Out)
2/3	654
3/1 (short)	12
3/2 (with short)	19(In) 7(Out)
4/1	48
5/1	579
5/2	654
6/1	902
6/2	960

Full Input Data And Results

Lane Saturation Flows

Junction: A34_Site Access								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A34 N)	3.65	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1980	1980
1/2 (A34 N)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
1/3 (A34 N)	3.65	0.00	Y	Arm 4 Right	15.00	100.0 %	1800	1800
2/1 (A34 S)	3.65	0.00	Y	Arm 4 Left	20.00	100.0 %	1842	1842
2/2 (A34 S)	3.65	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1980	1980
2/3 (A34 S)	3.65	0.00	N	Arm 5 Ahead	Inf	100.0 %	2120	2120
3/1 (Site West)	4.00	0.00	Y	Arm 5 Left	15.00	100.0 %	1832	1832
3/2 (Site West)	3.65	0.00	Y	Arm 6 Right	30.00	100.0 %	1886	1886
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2040 Base + Redhill (1.7m sqft) + Stone Phase 1 PM' (FG8: '2040 Base + Redhill (1.7m sqft) + Stone Phase 1 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired**Desired Flow :**

	Destination				
	A	B	C	Tot.	
Origin	A	0	1161	12	1173
	B	1754	0	7	1761
	C	25	18	0	43
	Tot.	1779	1179	19	2977

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 2040 Base + Redhill (1.7m sqft) + Stone Phase 1 PM
Junction: A34_Site Access	
1/1	553
1/2 (with short)	620(In) 608(Out)
1/3 (short)	12
2/1 (short)	7
2/2 (with short)	840(In) 833(Out)
2/3	921
3/1 (short)	25
3/2 (with short)	43(In) 18(Out)
4/1	19
5/1	858
5/2	921
6/1	571
6/2	608

Full Input Data And Results

Lane Saturation Flows

Junction: A34_Site Access								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A34 N)	3.65	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1980	1980
1/2 (A34 N)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
1/3 (A34 N)	3.65	0.00	Y	Arm 4 Right	15.00	100.0 %	1800	1800
2/1 (A34 S)	3.65	0.00	Y	Arm 4 Left	20.00	100.0 %	1842	1842
2/2 (A34 S)	3.65	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1980	1980
2/3 (A34 S)	3.65	0.00	N	Arm 5 Ahead	Inf	100.0 %	2120	2120
3/1 (Site West)	4.00	0.00	Y	Arm 5 Left	15.00	100.0 %	1832	1832
3/2 (Site West)	3.65	0.00	Y	Arm 6 Right	30.00	100.0 %	1886	1886
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

Scenario 7: '2040 Base+13% + Stone Phase 1 AM' (FG3: '2040 Base+13% + Stone Phase 1 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	2005	29	2034
	B	1290	0	19	1309
	C	12	7	0	19
	Tot.	1302	2012	48	3362

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: 2040 Base+13% + Stone Phase 1 AM
Junction: A34_Site Access	
1/1	969
1/2 (with short)	1065(In) 1036(Out)
1/3 (short)	29
2/1 (short)	19
2/2 (with short)	620(In) 601(Out)
2/3	689
3/1 (short)	12
3/2 (with short)	19(In) 7(Out)
4/1	48
5/1	613
5/2	689
6/1	976
6/2	1036

Full Input Data And Results

Lane Saturation Flows

Junction: A34_Site Access									
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)	
1/1 (A34 N)	3.65	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1980	1980	
1/2 (A34 N)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120	
1/3 (A34 N)	3.65	0.00	Y	Arm 4 Right	15.00	100.0 %	1800	1800	
2/1 (A34 S)	3.65	0.00	Y	Arm 4 Left	20.00	100.0 %	1842	1842	
2/2 (A34 S)	3.65	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1980	1980	
2/3 (A34 S)	3.65	0.00	N	Arm 5 Ahead	Inf	100.0 %	2120	2120	
3/1 (Site West)	4.00	0.00	Y	Arm 5 Left	15.00	100.0 %	1832	1832	
3/2 (Site West)	3.65	0.00	Y	Arm 6 Right	30.00	100.0 %	1886	1886	
4/1	Infinite Saturation Flow							Inf	Inf
5/1	Infinite Saturation Flow							Inf	Inf
5/2	Infinite Saturation Flow							Inf	Inf
6/1	Infinite Saturation Flow							Inf	Inf
6/2	Infinite Saturation Flow							Inf	Inf

Scenario 8: '2040 Base+13% + Stone Phase 1 PM' (FG4: '2040 Base+13% + Stone Phase 1 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	1240	12	1252
	B	1903	0	7	1910
	C	25	18	0	43
	Tot.	1928	1258	19	3205

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: 2040 Base+13% + Stone Phase 1 PM
Junction: A34_Site Access	
1/1	591
1/2 (with short)	661(In) 649(Out)
1/3 (short)	12
2/1 (short)	7
2/2 (with short)	913(In) 906(Out)
2/3	997
3/1 (short)	25
3/2 (with short)	43(In) 18(Out)
4/1	19
5/1	931
5/2	997
6/1	609
6/2	649

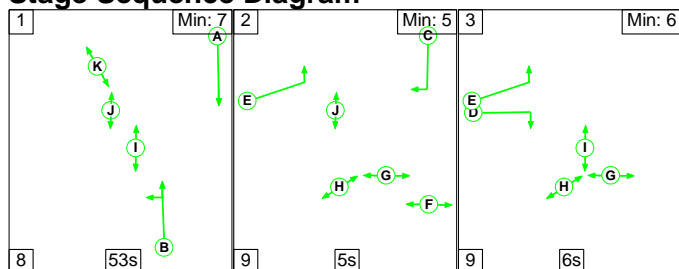
Full Input Data And Results

Lane Saturation Flows

Junction: A34_Site Access									
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)	
1/1 (A34 N)	3.65	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1980	1980	
1/2 (A34 N)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120	
1/3 (A34 N)	3.65	0.00	Y	Arm 4 Right	15.00	100.0 %	1800	1800	
2/1 (A34 S)	3.65	0.00	Y	Arm 4 Left	20.00	100.0 %	1842	1842	
2/2 (A34 S)	3.65	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1980	1980	
2/3 (A34 S)	3.65	0.00	N	Arm 5 Ahead	Inf	100.0 %	2120	2120	
3/1 (Site West)	4.00	0.00	Y	Arm 5 Left	15.00	100.0 %	1832	1832	
3/2 (Site West)	3.65	0.00	Y	Arm 6 Right	30.00	100.0 %	1886	1886	
4/1	Infinite Saturation Flow							Inf	Inf
5/1	Infinite Saturation Flow							Inf	Inf
5/2	Infinite Saturation Flow							Inf	Inf
6/1	Infinite Saturation Flow							Inf	Inf
6/2	Infinite Saturation Flow							Inf	Inf

Scenario 1: '2040 Base + Stone Phase 1 AM' (FG1: '2040 Base + Stone Phase 1 AM', Plan 1: 'Network Control Plan 1')

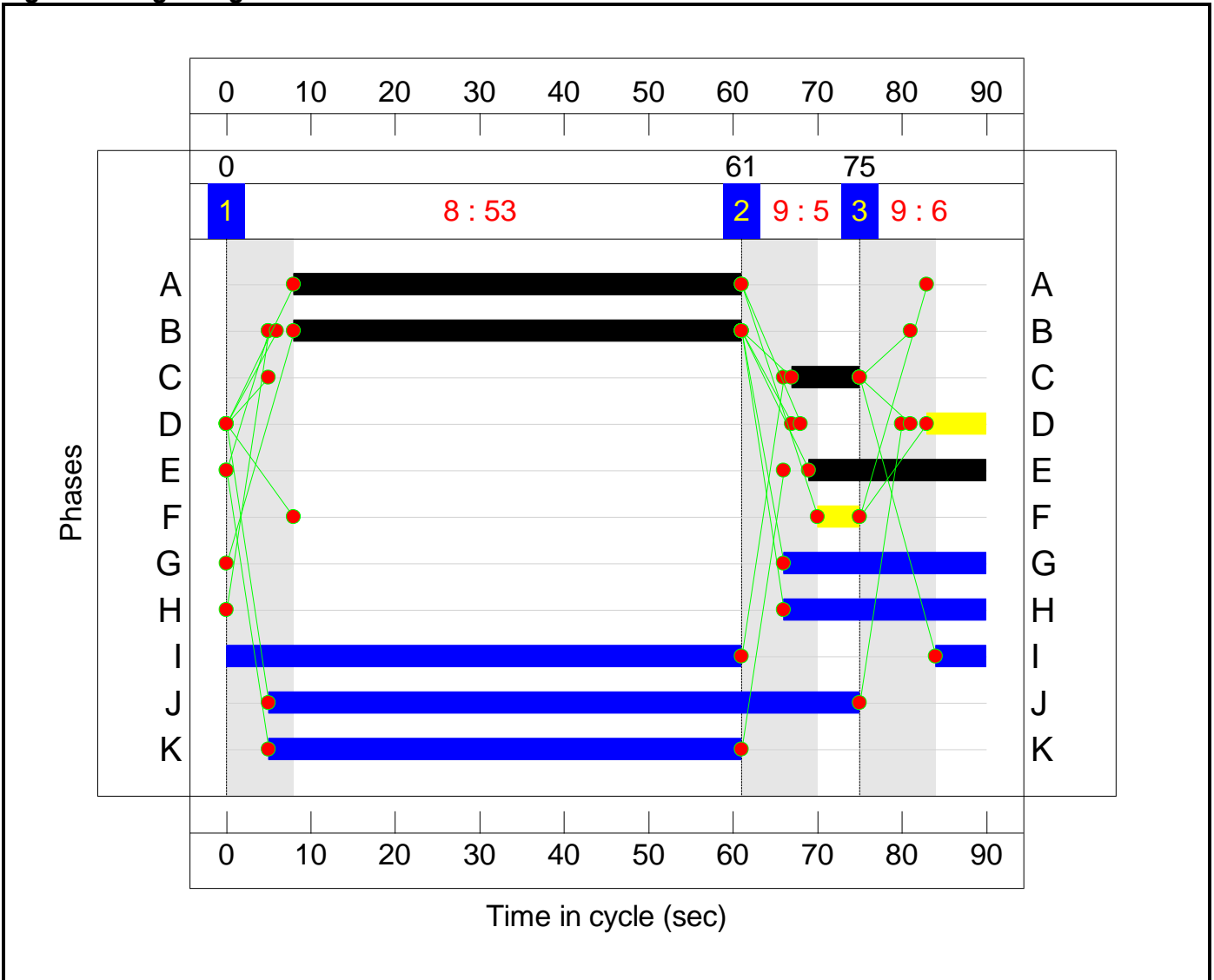
Stage Sequence Diagram



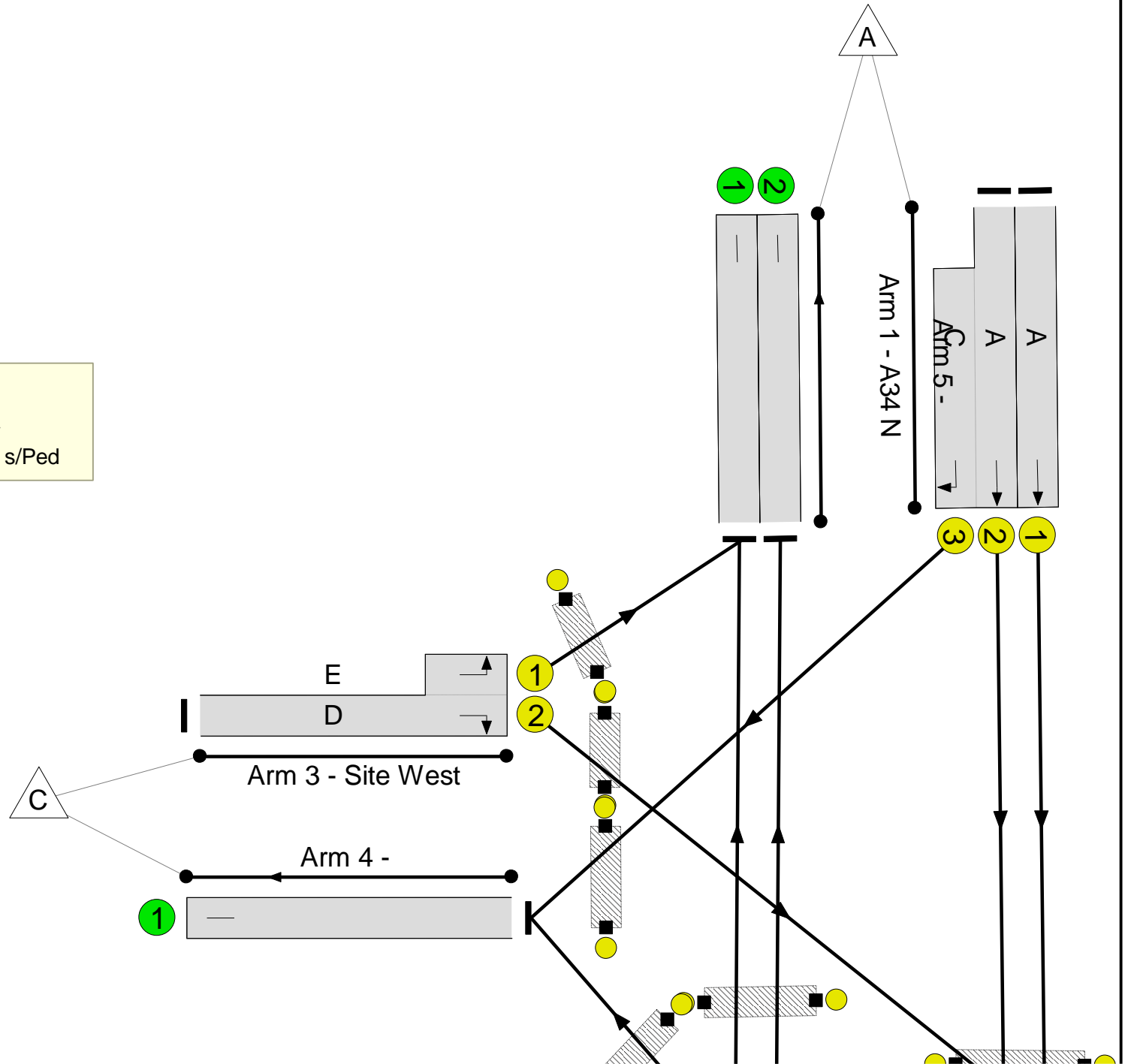
Stage Timings

Stage	1	2	3
Duration	53	5	6
Change Point	0	61	75

Signal Timings Diagram



A34 Site Access
PRC: 22.0 %
Total Traffic Delay: 13.6 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Signal Junction Option	-	-	N/A	-	-		-	-	-	-	-	-	73.8%
A34_Site Access	-	-	N/A	-	-		-	-	-	-	-	-	73.8%
1/1	A34 N Ahead	U	N/A	N/A	A		1	53	-	855	1980	1188	72.0%
1/2+1/3	A34 N Right Ahead	U	N/A	N/A	A C		1	53:8	-	948	2120:1800	1246+39	73.8 : 73.8%
2/2+2/1	A34 S Left Ahead	U	N/A	N/A	B		1	53	-	548	1980:1842	1141+41	46.3 : 46.3%
2/3	A34 S Ahead	U	N/A	N/A	B		1	53	-	613	2120	1272	48.2%
3/2+3/1	Site West Left Right	U	N/A	N/A	D E		1	7:21	-	19	1886:1832	135+232	5.2 : 5.2%
4/1		U	N/A	N/A	-		-	-	-	48	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	541	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	613	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	862	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	919	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	24	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	24	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	67	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	J		1	70	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	K		1	56	-	0	-	0	0.0%

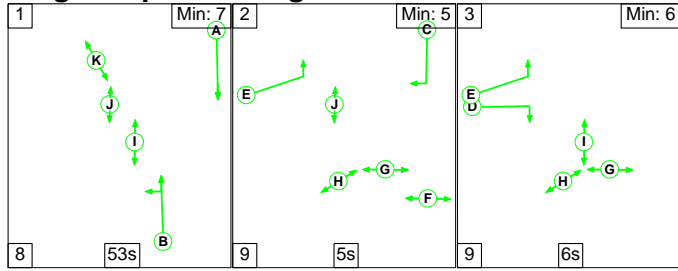
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Signal Junction Option	-	-	0	0	0	10.0	3.6	0.0	13.6	-	-	-	-
A34_Site Access	-	-	0	0	0	10.0	3.6	0.0	13.6	-	-	-	-
1/1	855	855	-	-	-	3.0	1.3	-	4.3	18.0	15.0	1.3	16.2
1/2+1/3	948	948	-	-	-	3.5	1.4	-	4.9	18.8	16.3	1.4	17.7
2/2+2/1	548	548	-	-	-	1.5	0.4	-	2.0	12.9	7.4	0.4	7.9
2/3	613	613	-	-	-	1.7	0.5	-	2.2	12.9	8.5	0.5	9.0
3/2+3/1	19	19	-	-	-	0.2	0.0	-	0.2	35.6	0.2	0.0	0.3
4/1	48	48	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	541	541	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	613	613	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	862	862	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	919	919	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		22.0	Total Delay for Signalled Lanes (pcuHr):			13.56	Cycle Time (s):		90	
			PRC Over All Lanes (%):		22.0	Total Delay Over All Lanes(pcuHr):			13.56				

Full Input Data And Results

Scenario 2: '2040 Base + Stone Phase 1 PM' (FG2: '2040 Base + Stone Phase 1 PM', Plan 1: 'Network Control Plan 1')

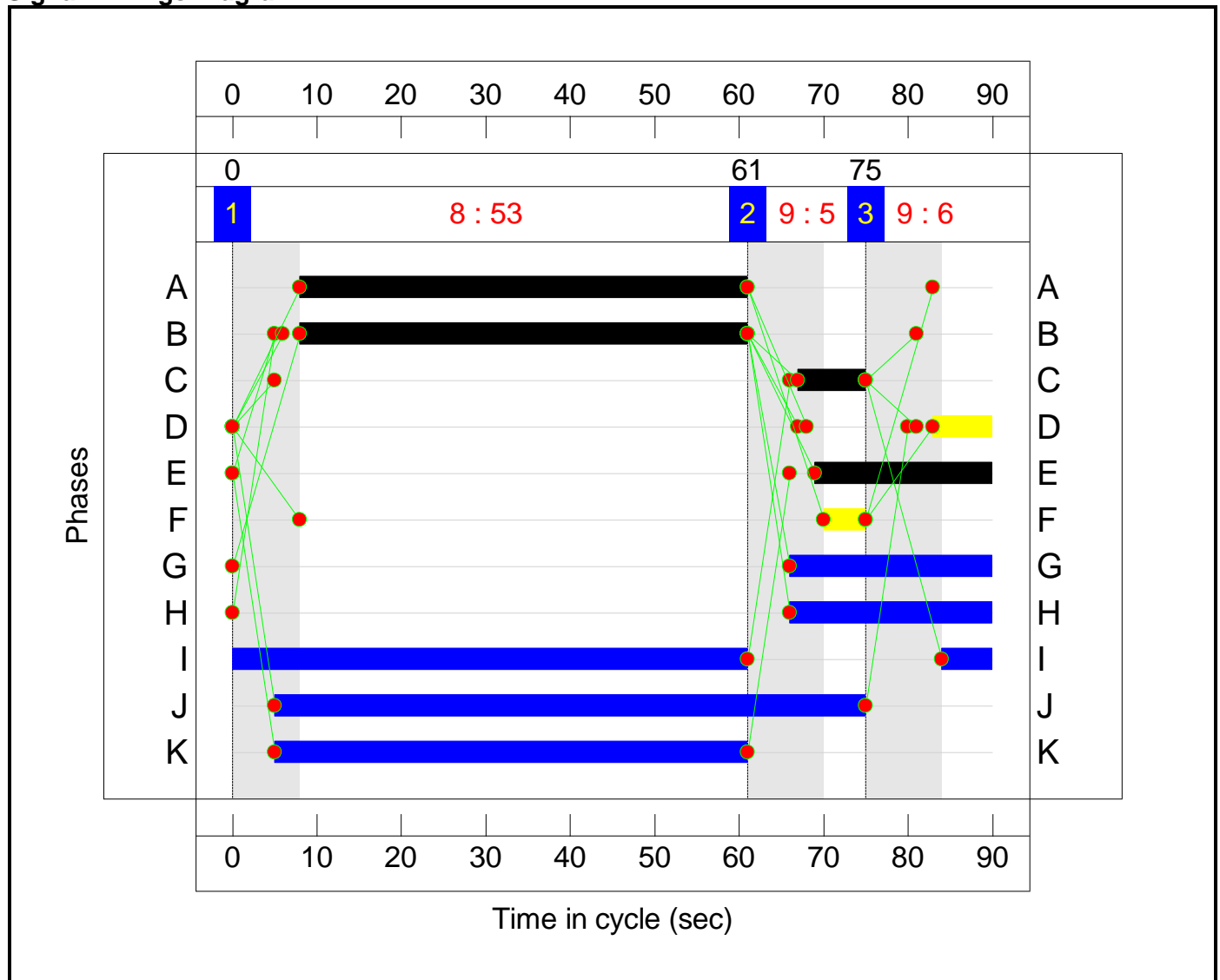
Stage Sequence Diagram



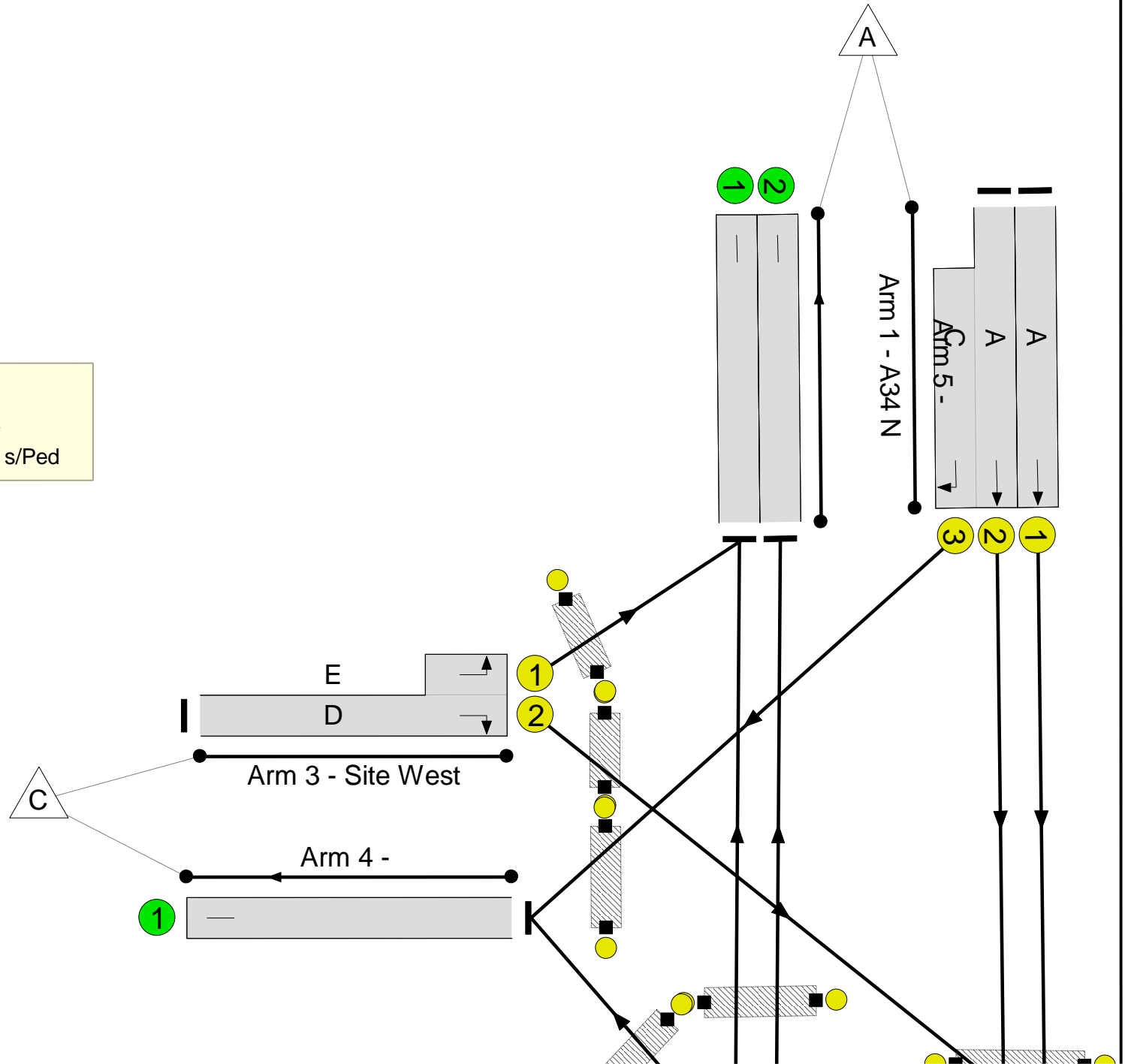
Stage Timings

Stage	1	2	3
Duration	53	5	6
Change Point	0	61	75

Signal Timings Diagram



A34 Site Access
PRC: 29.4 %
Total Traffic Delay: 12.4 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Signal Junction Option	-	-	N/A	-	-		-	-	-	-	-	-	69.6%
A34_Site Access	-	-	N/A	-	-		-	-	-	-	-	-	69.6%
1/1	A34 N Ahead	U	N/A	N/A	A		1	53	-	521	1980	1188	43.9%
1/2+1/3	A34 N Right Ahead	U	N/A	N/A	A C		1	53:8	-	588	2120:1800	1257+26	45.8 : 45.8%
2/2+2/1	A34 S Left Ahead	U	N/A	N/A	B		1	53	-	806	1980:1842	1173+10	68.1 : 68.1%
2/3	A34 S Ahead	U	N/A	N/A	B		1	53	-	885	2120	1272	69.6%
3/2+3/1	Site West Left Right	U	N/A	N/A	D E		1	7:21	-	43	1886:1832	137+191	13.1 : 13.1%
4/1		U	N/A	N/A	-		-	-	-	19	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	824	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	885	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	539	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	576	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	24	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	24	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	67	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	J		1	70	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	K		1	56	-	0	-	0	0.0%

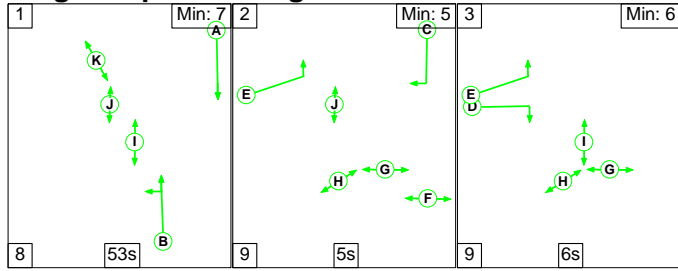
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Signal Junction Option	-	-	0	0	0	9.3	3.1	0.0	12.4	-	-	-	-
A34_Site Access	-	-	0	0	0	9.3	3.1	0.0	12.4	-	-	-	-
1/1	521	521	-	-	-	1.4	0.4	-	1.8	12.5	6.9	0.4	7.3
1/2+1/3	588	588	-	-	-	1.7	0.4	-	2.1	13.0	7.8	0.4	8.3
2/2+2/1	806	806	-	-	-	2.7	1.1	-	3.8	17.0	13.6	1.1	14.7
2/3	885	885	-	-	-	3.0	1.1	-	4.2	17.0	15.0	1.1	16.1
3/2+3/1	43	43	-	-	-	0.4	0.1	-	0.4	37.3	0.5	0.1	0.5
4/1	19	19	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	824	824	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	885	885	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	539	539	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	576	576	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):	29.4	Total Delay for Signalled Lanes (pcuHr):	12.36	Cycle Time (s):	90					
			PRC Over All Lanes (%):	29.4	Total Delay Over All Lanes(pcuHr):	12.36							

Full Input Data And Results

Scenario 3: '2040 Base + Redhill (1m sqft) + Stone Phase 1 AM' (FG5: '2040 Base + Redhill (1m sqft) + Stone Phase 1 AM', Plan 1: 'Network Control Plan 1')

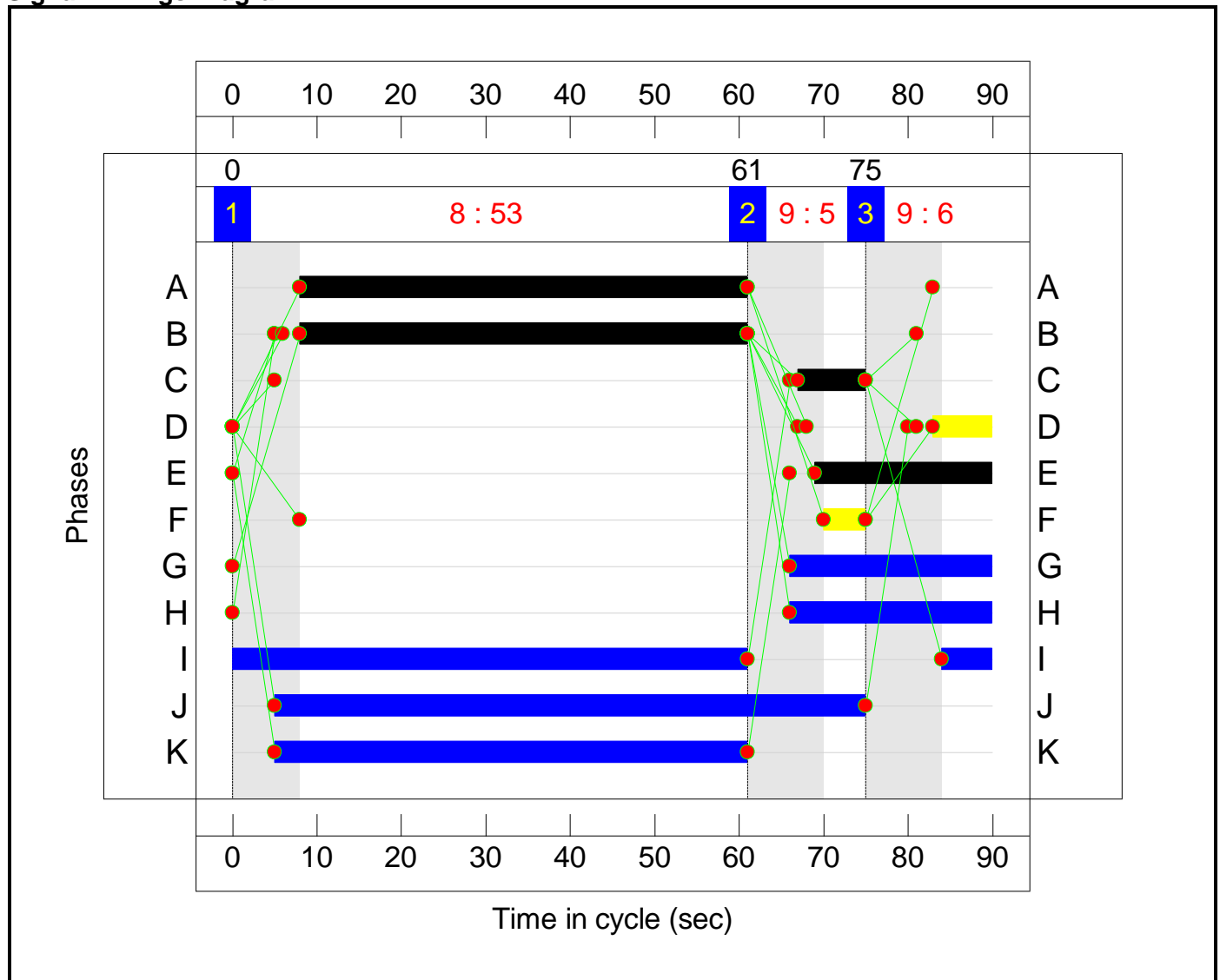
Stage Sequence Diagram



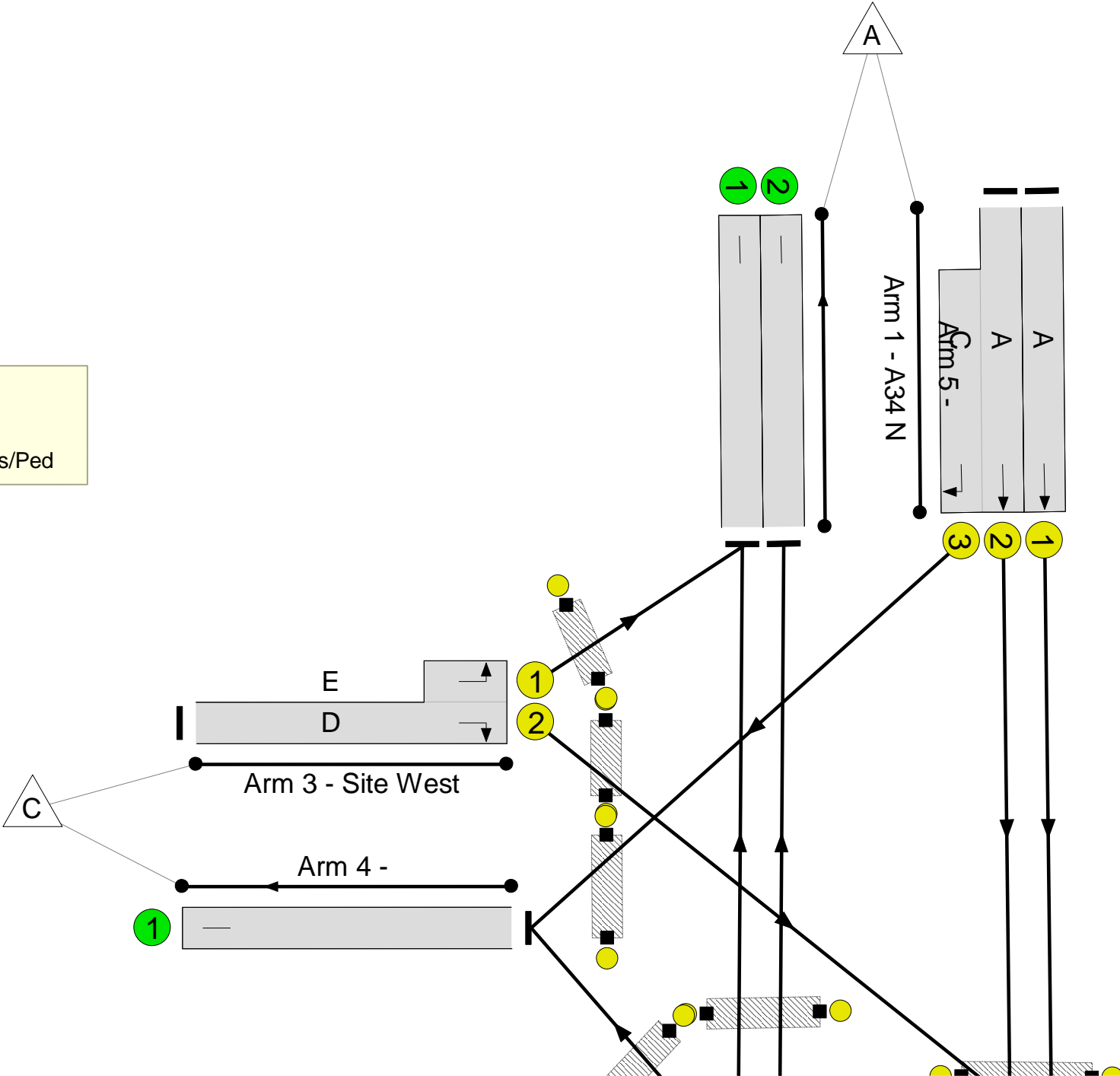
Stage Timings

Stage	1	2	3
Duration	53	5	6
Change Point	0	61	75

Signal Timings Diagram



A34 Site Access
PRC: 17.9%
Total Traffic Delay: 14.7 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Signal Junction Option	-	-	N/A	-	-		-	-	-	-	-	-	76.4%
A34_Site Access	-	-	N/A	-	-		-	-	-	-	-	-	76.4%
1/1	A34 N Ahead	U	N/A	N/A	A		1	53	-	886	1980	1188	74.6%
1/2+1/3	A34 N Right Ahead	U	N/A	N/A	A C		1	53:8	-	981	2120:1800	1247+38	76.4 : 76.4%
2/2+2/1	A34 S Left Ahead	U	N/A	N/A	B		1	53	-	583	1980:1842	1144+39	49.3 : 49.3%
2/3	A34 S Ahead	U	N/A	N/A	B		1	53	-	649	2120	1272	51.0%
3/2+3/1	Site West Left Right	U	N/A	N/A	D E		1	7:21	-	19	1886:1832	135+232	5.2 : 5.2%
4/1		U	N/A	N/A	-		-	-	-	48	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	576	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	649	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	893	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	952	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	24	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	24	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	67	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	J		1	70	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	K		1	56	-	0	-	0	0.0%

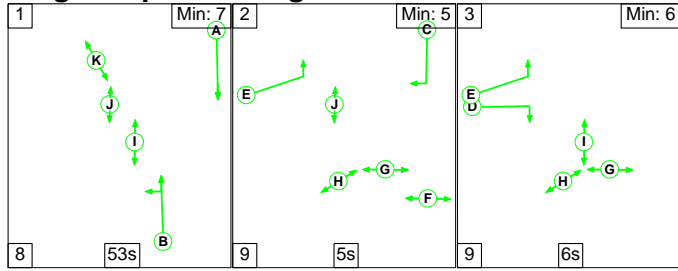
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Signal Junction Option	-	-	0	0	0	10.7	4.1	0.0	14.7	-	-	-	-
A34_Site Access	-	-	0	0	0	10.7	4.1	0.0	14.7	-	-	-	-
1/1	886	886	-	-	-	3.2	1.5	-	4.7	18.9	16.0	1.5	17.5
1/2+1/3	981	981	-	-	-	3.8	1.6	-	5.4	19.7	17.4	1.6	19.0
2/2+2/1	583	583	-	-	-	1.7	0.5	-	2.1	13.3	8.2	0.5	8.7
2/3	649	649	-	-	-	1.9	0.5	-	2.4	13.3	9.2	0.5	9.7
3/2+3/1	19	19	-	-	-	0.2	0.0	-	0.2	35.6	0.2	0.0	0.3
4/1	48	48	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	576	576	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	649	649	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	893	893	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	952	952	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		17.9	Total Delay for Signalled Lanes (pcuHr):		14.75	Cycle Time (s):		90		
			PRC Over All Lanes (%):		17.9	Total Delay Over All Lanes(pcuHr):		14.75					

Full Input Data And Results

Scenario 4: '2040 Base + Redhill (1m sqft) + Stone Phase 1 PM' (FG6: '2040 Base + Redhill (1m sqft) + Stone Phase 1 PM', Plan 1: 'Network Control Plan 1')

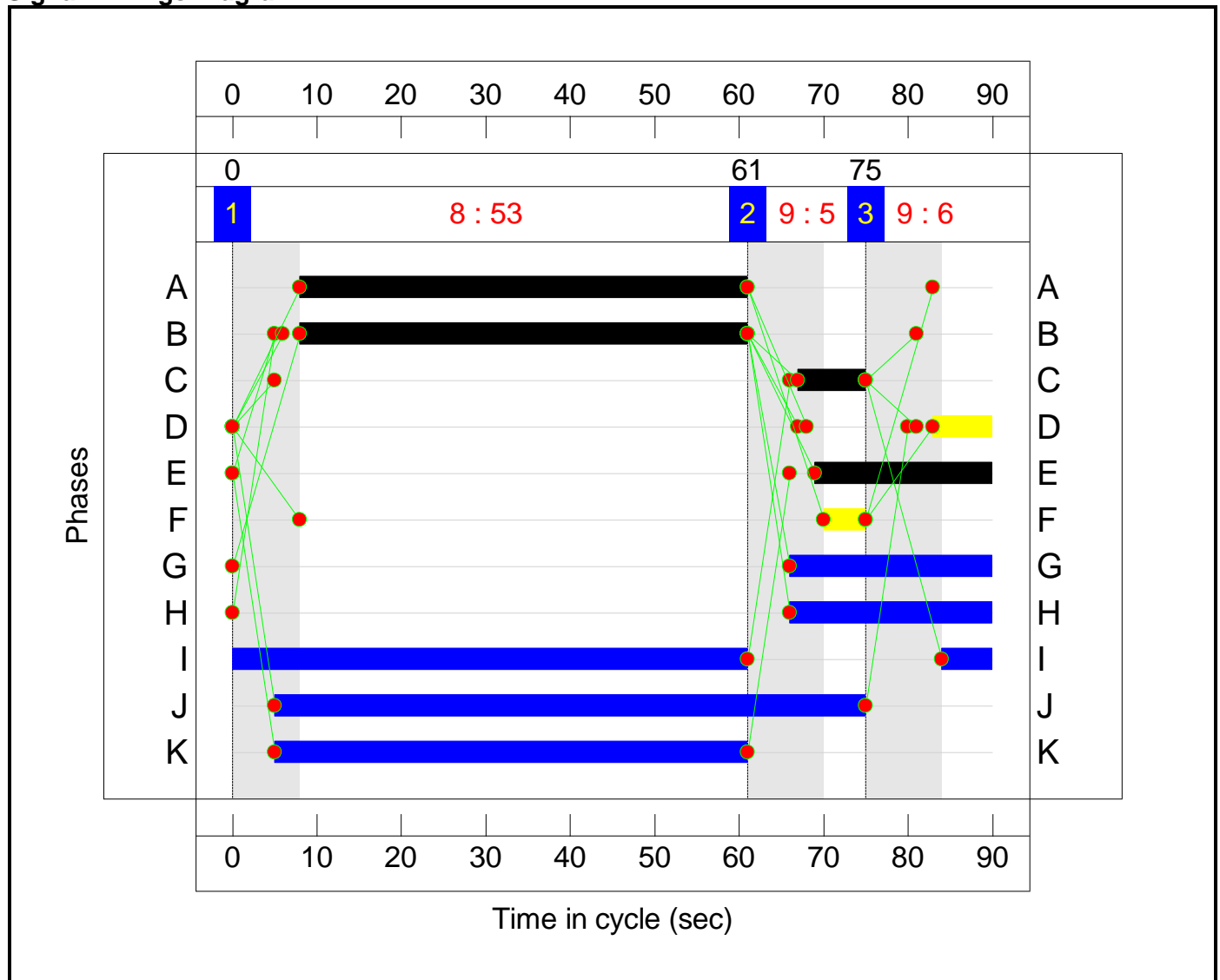
Stage Sequence Diagram



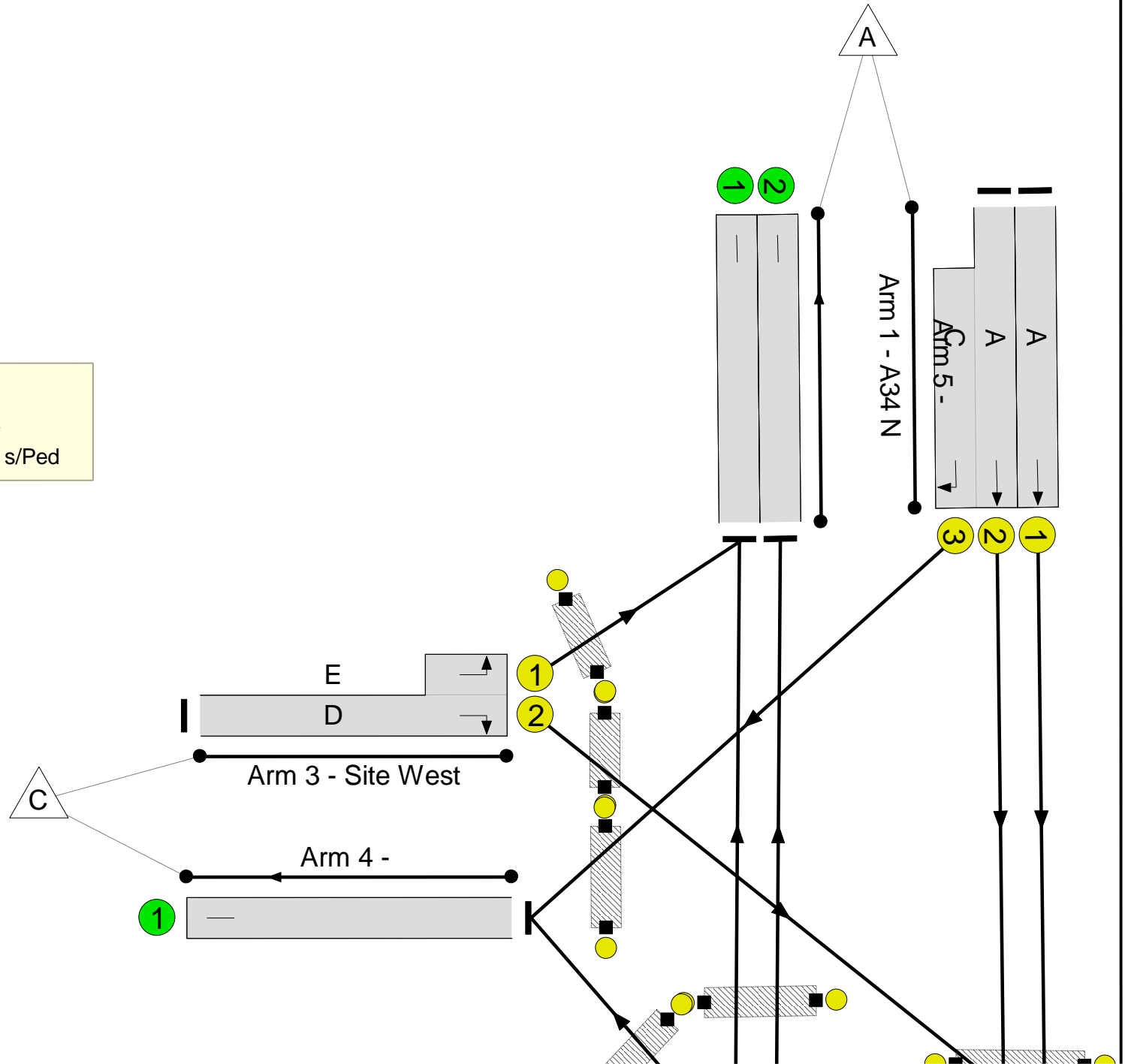
Stage Timings

Stage	1	2	3
Duration	53	5	6
Change Point	0	61	75

Signal Timings Diagram



A34 Site Access
PRC: 25.5 %
Total Traffic Delay: 13.2 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Signal Junction Option	-	-	N/A	-	-		-	-	-	-	-	-	71.7%
A34_Site Access	-	-	N/A	-	-		-	-	-	-	-	-	71.7%
1/1	A34 N Ahead	U	N/A	N/A	A		1	53	-	549	1980	1188	46.2%
1/2+1/3	A34 N Right Ahead	U	N/A	N/A	A C		1	53:8	-	617	2120:1800	1258+25	48.1 : 48.1%
2/2+2/1	A34 S Left Ahead	U	N/A	N/A	B		1	53	-	832	1980:1842	1174+10	70.3 : 70.3%
2/3	A34 S Ahead	U	N/A	N/A	B		1	53	-	912	2120	1272	71.7%
3/2+3/1	Site West Left Right	U	N/A	N/A	D E		1	7:21	-	43	1886:1832	137+191	13.1 : 13.1%
4/1		U	N/A	N/A	-		-	-	-	19	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	850	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	912	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	567	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	605	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	24	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	24	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	67	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	J		1	70	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	K		1	56	-	0	-	0	0.0%

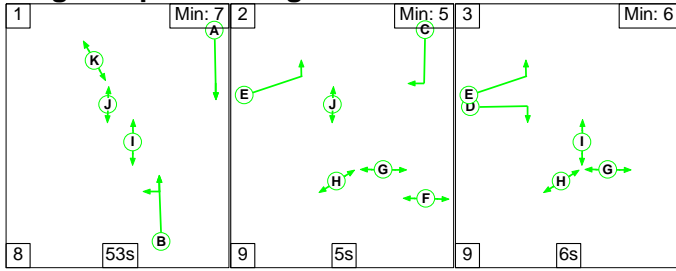
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Signal Junction Option	-	-	0	0	0	9.8	3.4	0.0	13.2	-	-	-	-
A34_Site Access	-	-	0	0	0	9.8	3.4	0.0	13.2	-	-	-	-
1/1	549	549	-	-	-	1.5	0.4	-	1.9	12.8	7.5	0.4	7.9
1/2+1/3	617	617	-	-	-	1.8	0.5	-	2.3	13.3	8.4	0.5	8.9
2/2+2/1	832	832	-	-	-	2.9	1.2	-	4.1	17.6	14.3	1.2	15.5
2/3	912	912	-	-	-	3.2	1.3	-	4.5	17.6	16.0	1.3	17.2
3/2+3/1	43	43	-	-	-	0.4	0.1	-	0.4	37.3	0.5	0.1	0.5
4/1	19	19	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	850	850	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	912	912	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	567	567	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	605	605	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		25.5	Total Delay for Signalled Lanes (pcuHr):		13.20	Cycle Time (s):		90		
			PRC Over All Lanes (%):		25.5	Total Delay Over All Lanes(pcuHr):		13.20					

Full Input Data And Results

Scenario 5: '2040 Base + Redhill (1.7m sqft) + Stone Phase 1 AM' (FG7: '2040 Base + Redhill (1.7m sqft) + Stone Phase 1 AM', Plan 1: 'Network Control Plan 1')

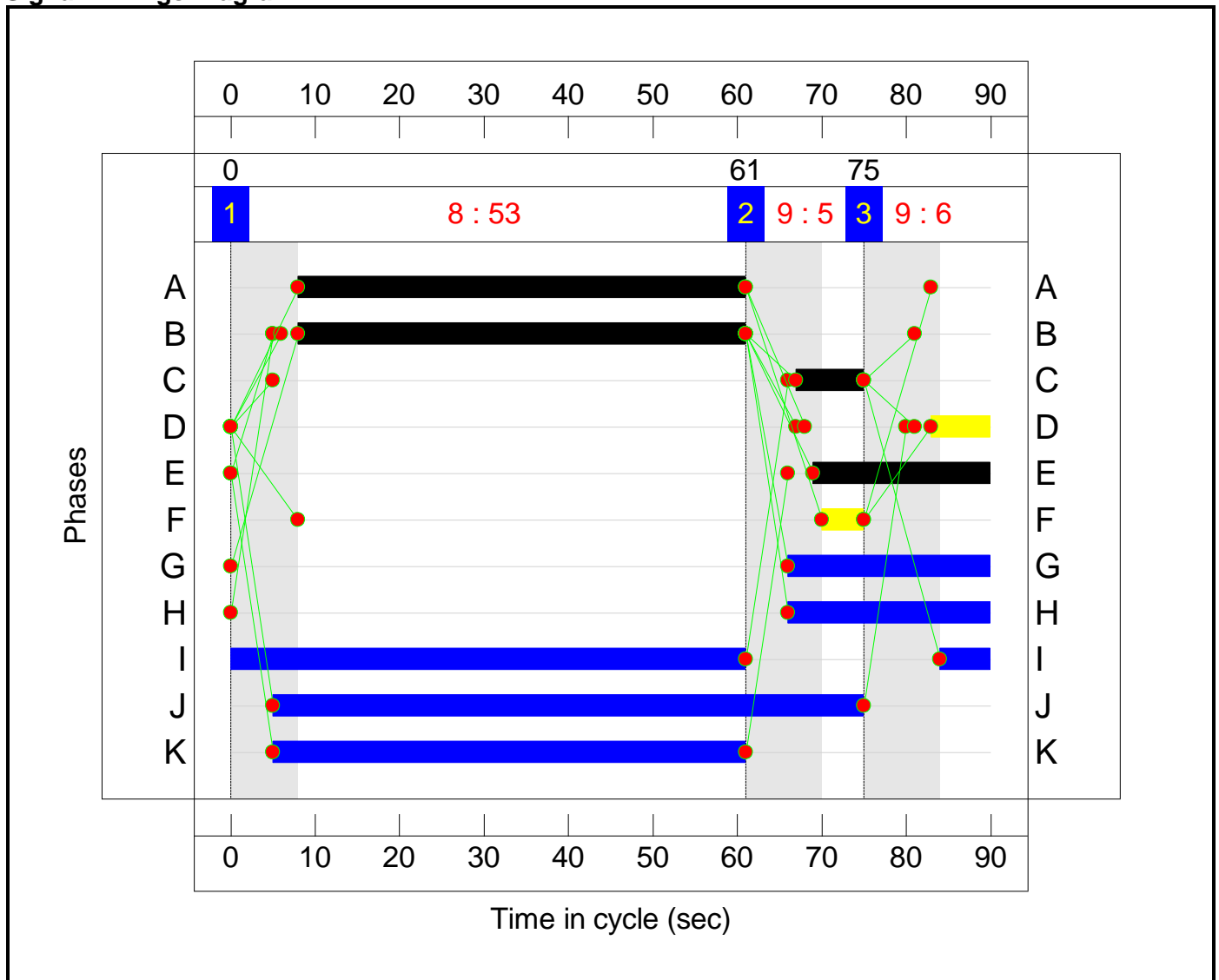
Stage Sequence Diagram



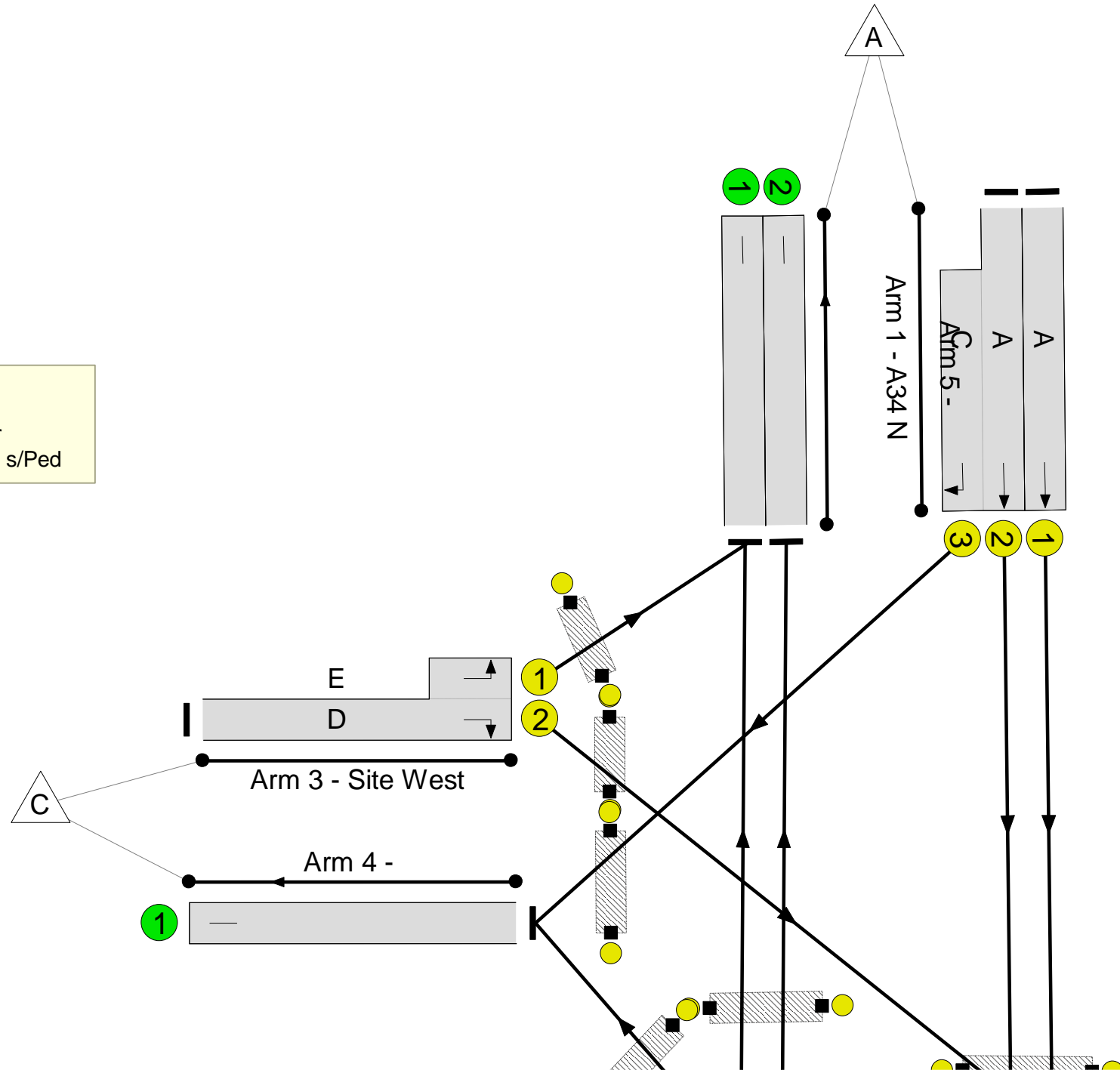
Stage Timings

Stage	1	2	3
Duration	53	5	6
Change Point	0	61	75

Signal Timings Diagram



A34_Site Access
PRC: 16.9 %
Total Traffic Delay: 15.0 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Signal Junction Option	-	-	N/A	-	-		-	-	-	-	-	-	77.0%
A34_Site Access	-	-	N/A	-	-		-	-	-	-	-	-	77.0%
1/1	A34 N Ahead	U	N/A	N/A	A		1	53	-	895	1980	1188	75.3%
1/2+1/3	A34 N Right Ahead	U	N/A	N/A	A C		1	53:8	-	989	2120:1800	1247+38	77.0 : 77.0%
2/2+2/1	A34 S Left Ahead	U	N/A	N/A	B		1	53	-	586	1980:1842	1144+38	49.6 : 49.6%
2/3	A34 S Ahead	U	N/A	N/A	B		1	53	-	654	2120	1272	51.4%
3/2+3/1	Site West Left Right	U	N/A	N/A	D E		1	7:21	-	19	1886:1832	135+232	5.2 : 5.2%
4/1		U	N/A	N/A	-		-	-	-	48	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	579	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	654	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	902	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	960	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	24	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	24	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	67	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	J		1	70	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	K		1	56	-	0	-	0	0.0%

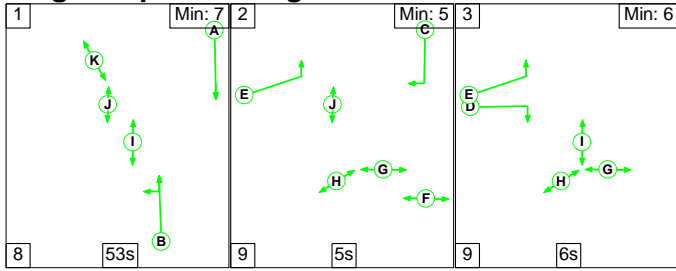
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Signal Junction Option	-	-	0	0	0	10.8	4.2	0.0	15.0	-	-	-	-
A34_Site Access	-	-	0	0	0	10.8	4.2	0.0	15.0	-	-	-	-
1/1	895	895	-	-	-	3.3	1.5	-	4.8	19.2	16.2	1.5	17.7
1/2+1/3	989	989	-	-	-	3.8	1.7	-	5.5	19.9	17.9	1.7	19.5
2/2+2/1	586	586	-	-	-	1.7	0.5	-	2.2	13.3	8.3	0.5	8.8
2/3	654	654	-	-	-	1.9	0.5	-	2.4	13.3	9.4	0.5	10.0
3/2+3/1	19	19	-	-	-	0.2	0.0	-	0.2	35.6	0.2	0.0	0.3
4/1	48	48	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	579	579	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	654	654	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	902	902	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	960	960	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		16.9	Total Delay for Signalled Lanes (pcuHr):			15.02	Cycle Time (s): 90			
			PRC Over All Lanes (%):		16.9	Total Delay Over All Lanes(pcuHr):			15.02				

Full Input Data And Results

Scenario 6: '2040 Base + Redhill (1.7m sqft) + Stone Phase 1 PM' (FG8: '2040 Base + Redhill (1.7m sqft) + Stone Phase 1 PM', Plan 1: 'Network Control Plan 1')

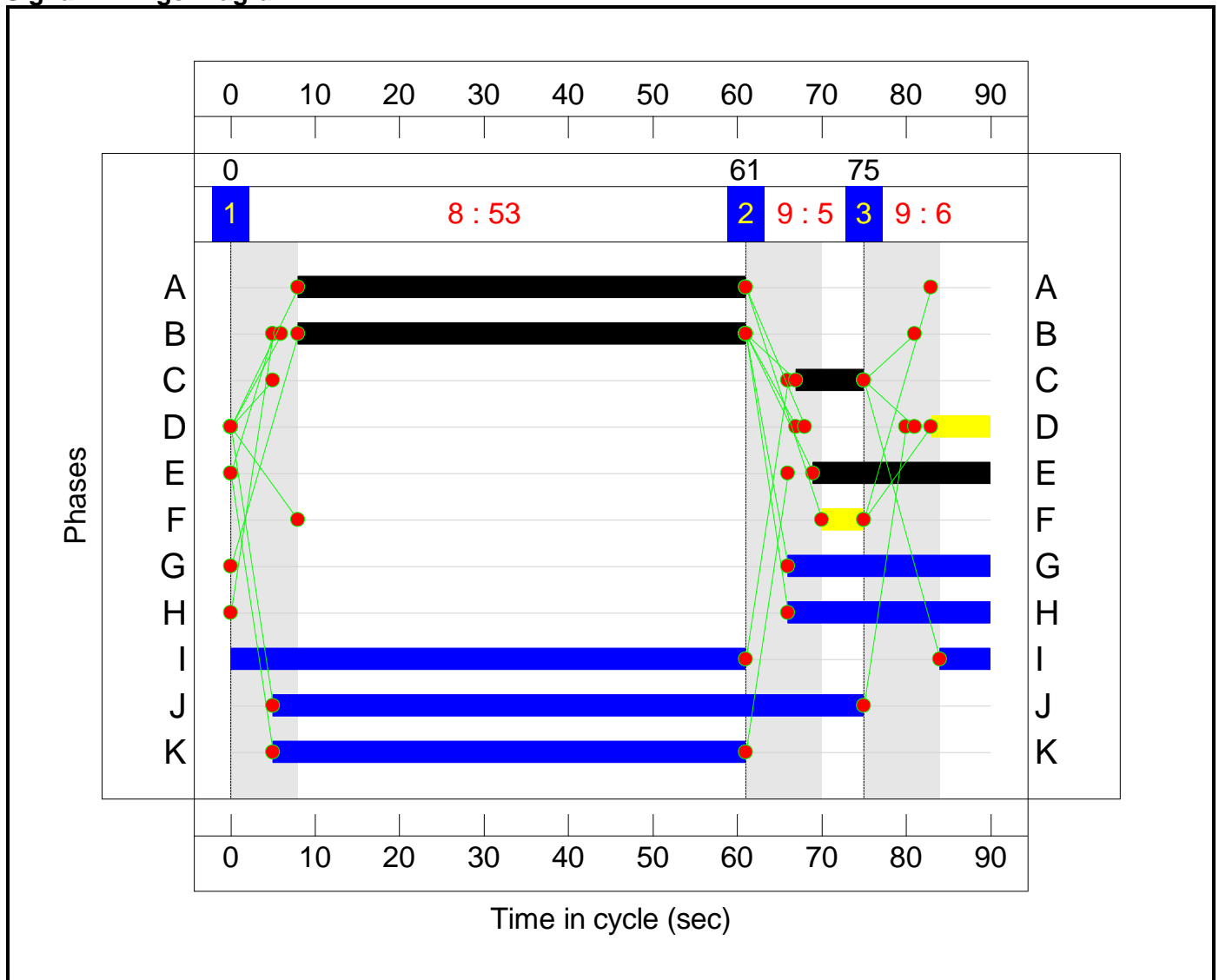
Stage Sequence Diagram



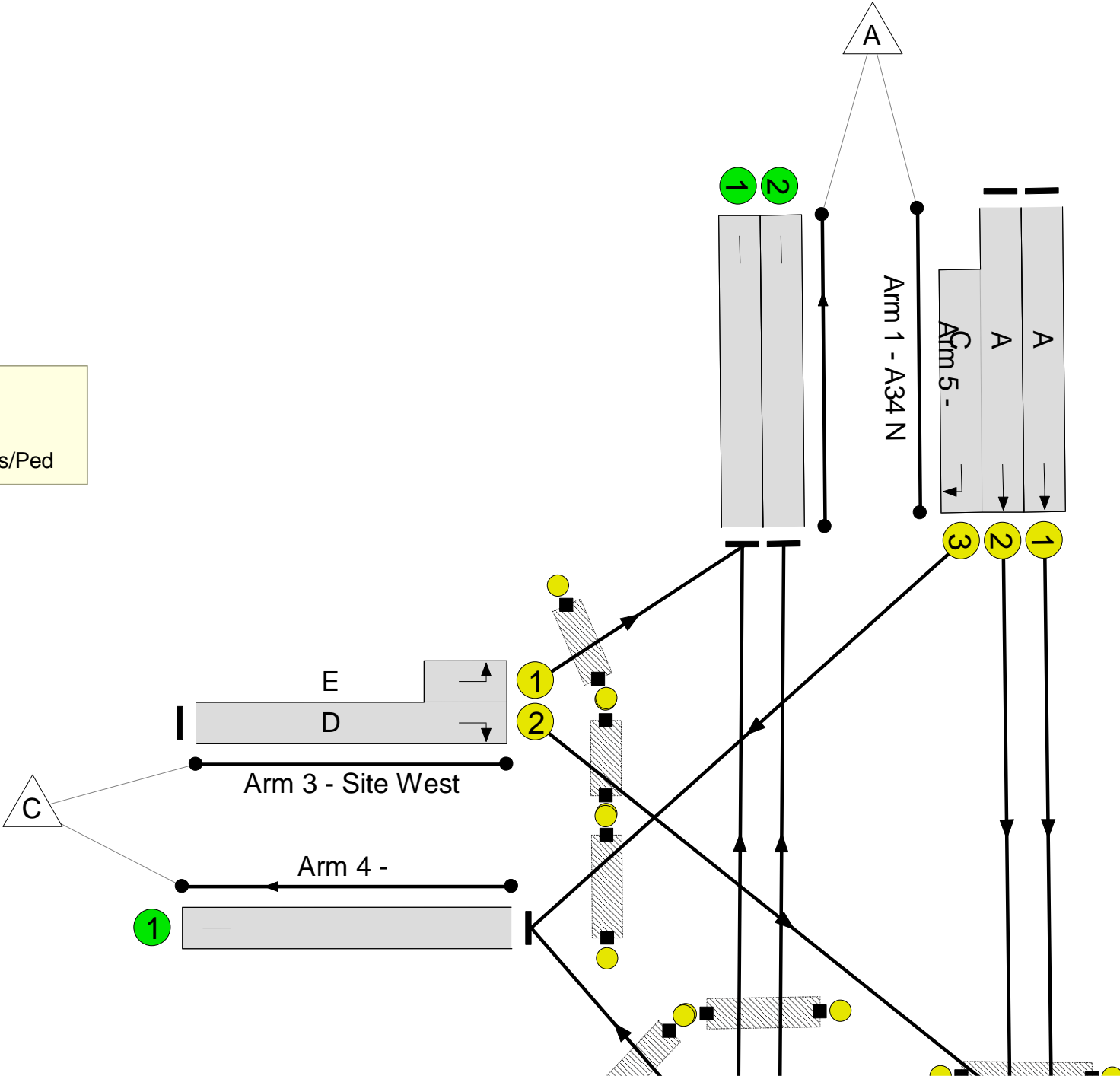
Stage Timings

Stage	1	2	3
Duration	53	5	6
Change Point	0	61	75

Signal Timings Diagram



A34_Site Access
PRC: 24.3 %
Total Traffic Delay: 13.4 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Signal Junction Option	-	-	N/A	-	-		-	-	-	-	-	-	72.4%
A34_Site Access	-	-	N/A	-	-		-	-	-	-	-	-	72.4%
1/1	A34 N Ahead	U	N/A	N/A	A		1	53	-	553	1980	1188	46.5%
1/2+1/3	A34 N Right Ahead	U	N/A	N/A	A C		1	53:8	-	620	2120:1800	1258+25	48.3 : 48.3%
2/2+2/1	A34 S Left Ahead	U	N/A	N/A	B		1	53	-	840	1980:1842	1174+10	71.0 : 71.0%
2/3	A34 S Ahead	U	N/A	N/A	B		1	53	-	921	2120	1272	72.4%
3/2+3/1	Site West Left Right	U	N/A	N/A	D E		1	7:21	-	43	1886:1832	137+191	13.1 : 13.1%
4/1		U	N/A	N/A	-		-	-	-	19	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	858	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	921	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	571	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	608	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	24	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	24	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	67	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	J		1	70	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	K		1	56	-	0	-	0	0.0%

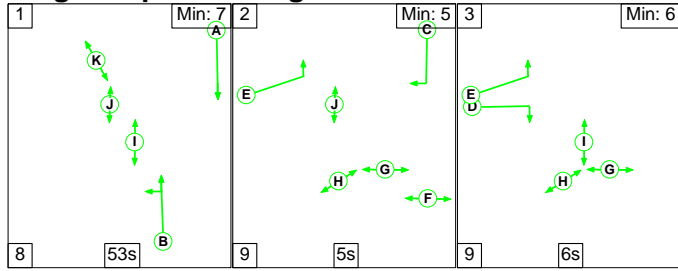
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Signal Junction Option	-	-	0	0	0	9.9	3.5	0.0	13.4	-	-	-	-
A34_Site Access	-	-	0	0	0	9.9	3.5	0.0	13.4	-	-	-	-
1/1	553	553	-	-	-	1.5	0.4	-	2.0	12.8	7.5	0.4	8.0
1/2+1/3	620	620	-	-	-	1.8	0.5	-	2.3	13.3	8.4	0.5	8.9
2/2+2/1	840	840	-	-	-	2.9	1.2	-	4.2	17.8	14.5	1.2	15.7
2/3	921	921	-	-	-	3.3	1.3	-	4.6	17.8	16.1	1.3	17.4
3/2+3/1	43	43	-	-	-	0.4	0.1	-	0.4	37.3	0.5	0.1	0.5
4/1	19	19	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	858	858	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	921	921	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	571	571	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	608	608	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		24.3	Total Delay for Signalled Lanes (pcuHr):		13.43	Cycle Time (s):		90		
			PRC Over All Lanes (%):		24.3	Total Delay Over All Lanes(pcuHr):		13.43					

Full Input Data And Results

Scenario 7: '2040 Base+13% + Stone Phase 1 AM' (FG3: '2040 Base+13% + Stone Phase 1 AM', Plan 1: 'Network Control Plan 1')

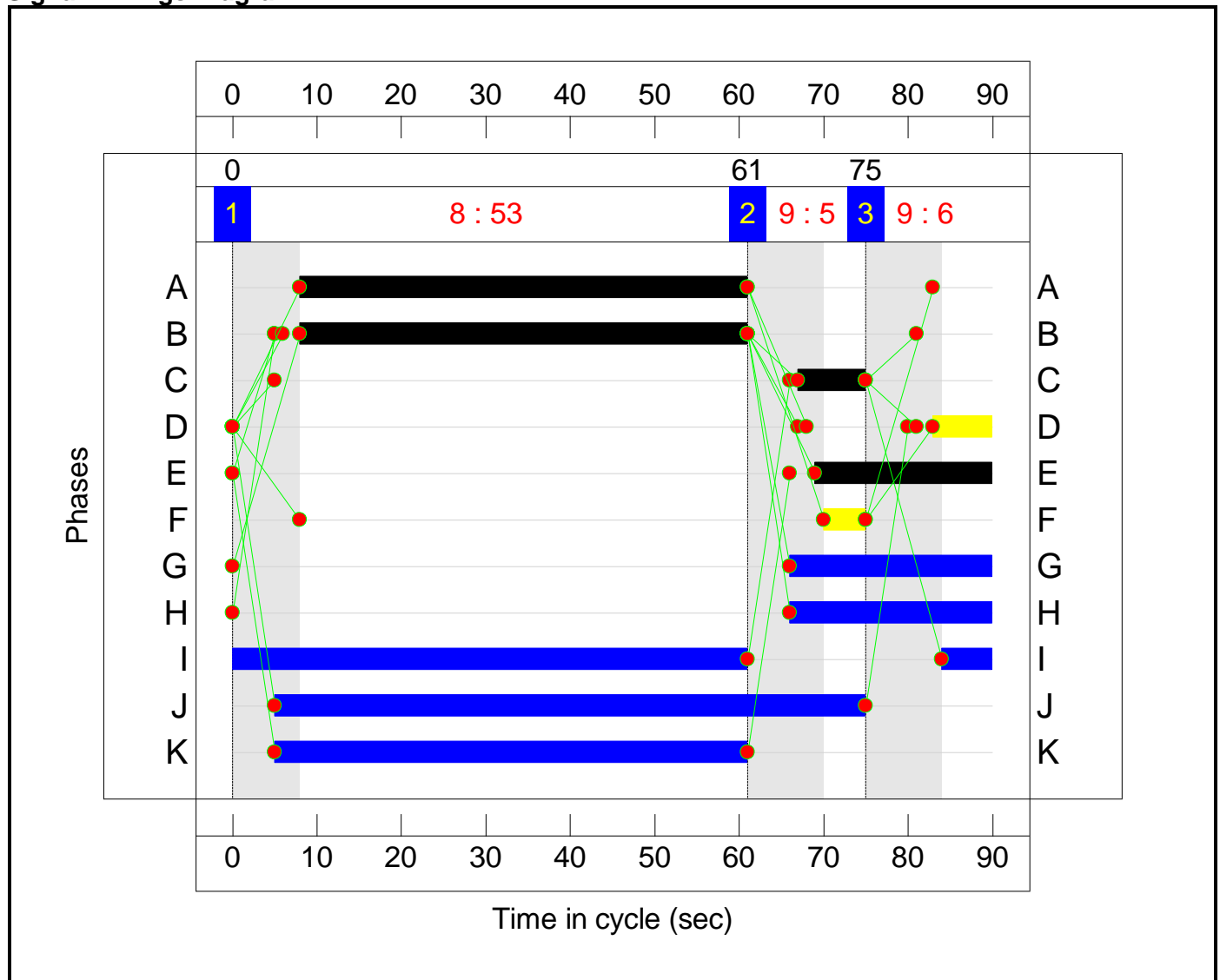
Stage Sequence Diagram



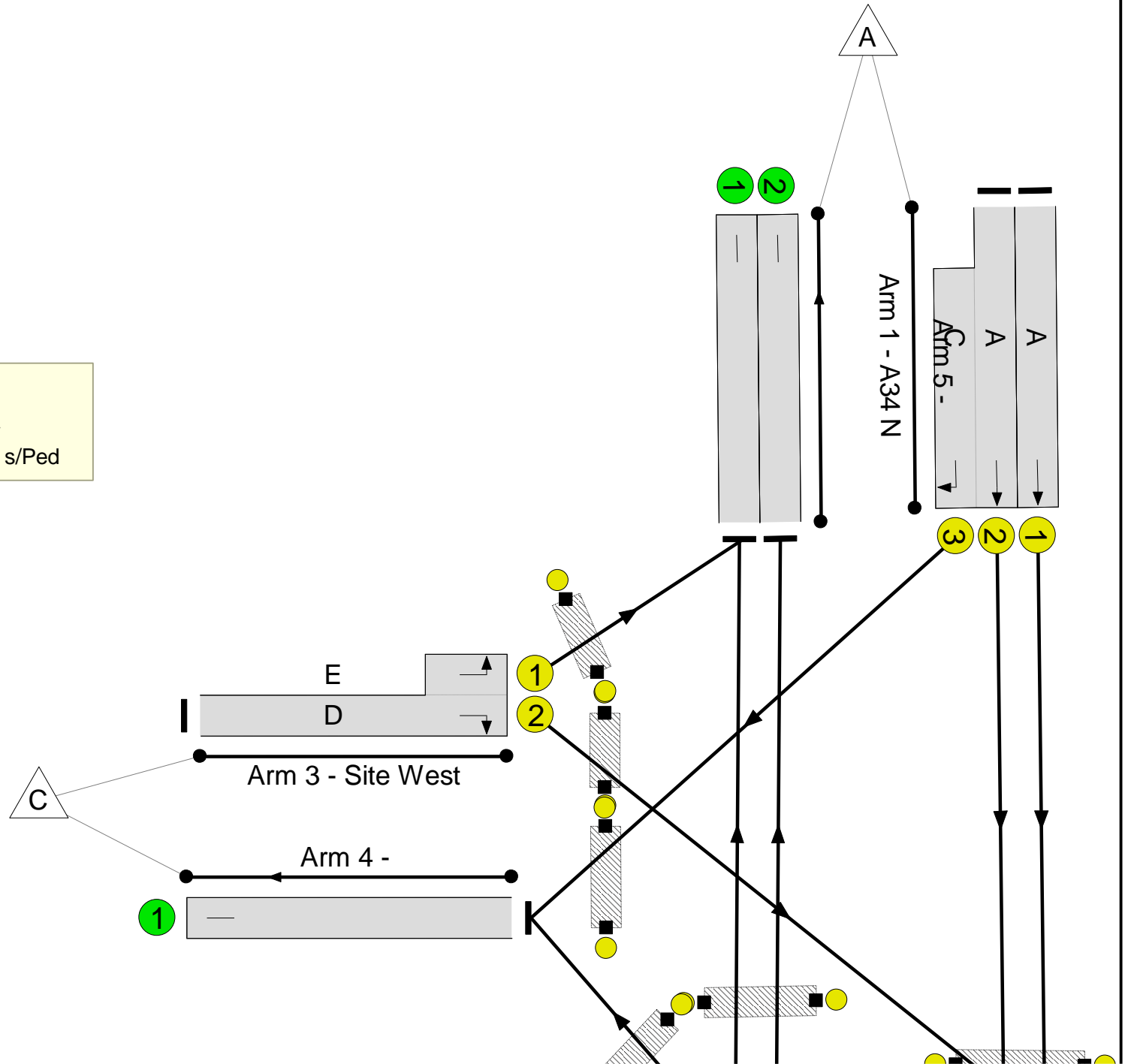
Stage Timings

Stage	1	2	3
Duration	53	5	6
Change Point	0	61	75

Signal Timings Diagram



A34 Site Access
PRC: 8.5 %
Total Traffic Delay: 17.9 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Signal Junction Option	-	-	N/A	-	-		-	-	-	-	-	-	82.9%
A34_Site Access	-	-	N/A	-	-		-	-	-	-	-	-	82.9%
1/1	A34 N Ahead	U	N/A	N/A	A		1	53	-	969	1980	1188	81.6%
1/2+1/3	A34 N Right Ahead	U	N/A	N/A	A C		1	53:8	-	1065	2120:1800	1249+35	82.9 : 82.9%
2/2+2/1	A34 S Left Ahead	U	N/A	N/A	B		1	53	-	620	1980:1842	1146+36	52.4 : 52.4%
2/3	A34 S Ahead	U	N/A	N/A	B		1	53	-	689	2120	1272	54.2%
3/2+3/1	Site West Left Right	U	N/A	N/A	D E		1	7:21	-	19	1886:1832	135+232	5.2 : 5.2%
4/1		U	N/A	N/A	-		-	-	-	48	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	613	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	689	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	976	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	1036	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	24	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	24	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	67	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	J		1	70	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	K		1	56	-	0	-	0	0.0%

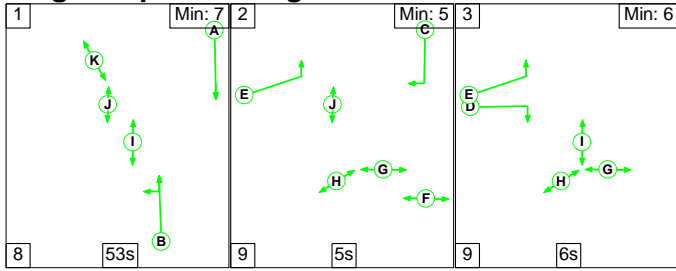
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Signal Junction Option	-	-	0	0	0	12.2	5.7	0.0	17.9	-	-	-	-
A34_Site Access	-	-	0	0	0	12.2	5.7	0.0	17.9	-	-	-	-
1/1	969	969	-	-	-	3.8	2.2	-	6.0	22.2	18.8	2.2	21.0
1/2+1/3	1065	1065	-	-	-	4.4	2.4	-	6.7	22.8	20.8	2.4	23.1
2/2+2/1	620	620	-	-	-	1.8	0.5	-	2.4	13.8	8.9	0.5	9.5
2/3	689	689	-	-	-	2.0	0.6	-	2.6	13.8	10.1	0.6	10.7
3/2+3/1	19	19	-	-	-	0.2	0.0	-	0.2	35.6	0.2	0.0	0.3
4/1	48	48	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	613	613	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	689	689	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	976	976	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	1036	1036	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		8.5	Total Delay for Signalled Lanes (pcuHr):		17.89	Cycle Time (s):		90		
			PRC Over All Lanes (%):		8.5	Total Delay Over All Lanes(pcuHr):		17.89					

Full Input Data And Results

Scenario 8: '2040 Base+13% + Stone Phase 1 PM' (FG4: '2040 Base+13% + Stone Phase 1 PM', Plan 1: 'Network Control Plan 1')

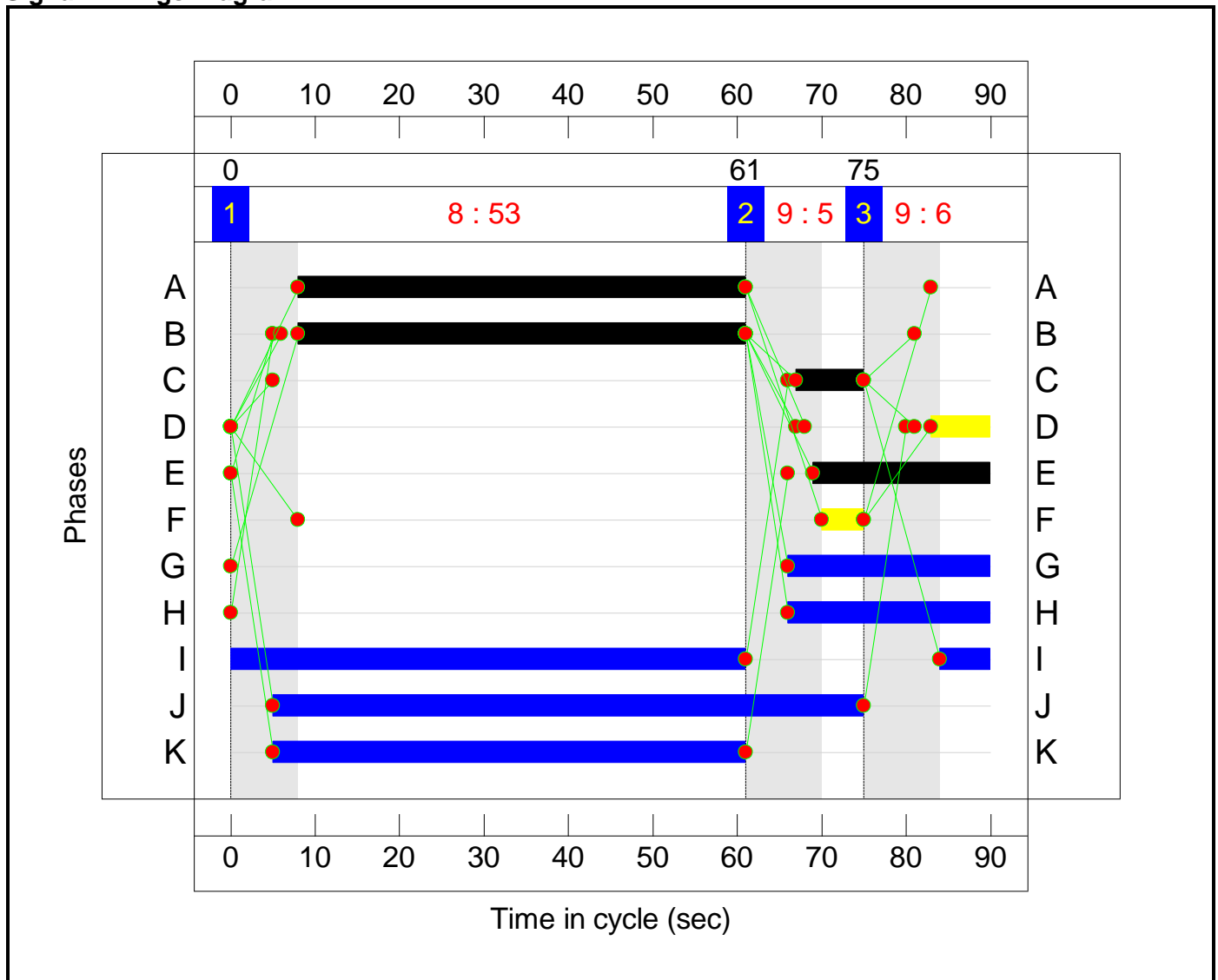
Stage Sequence Diagram



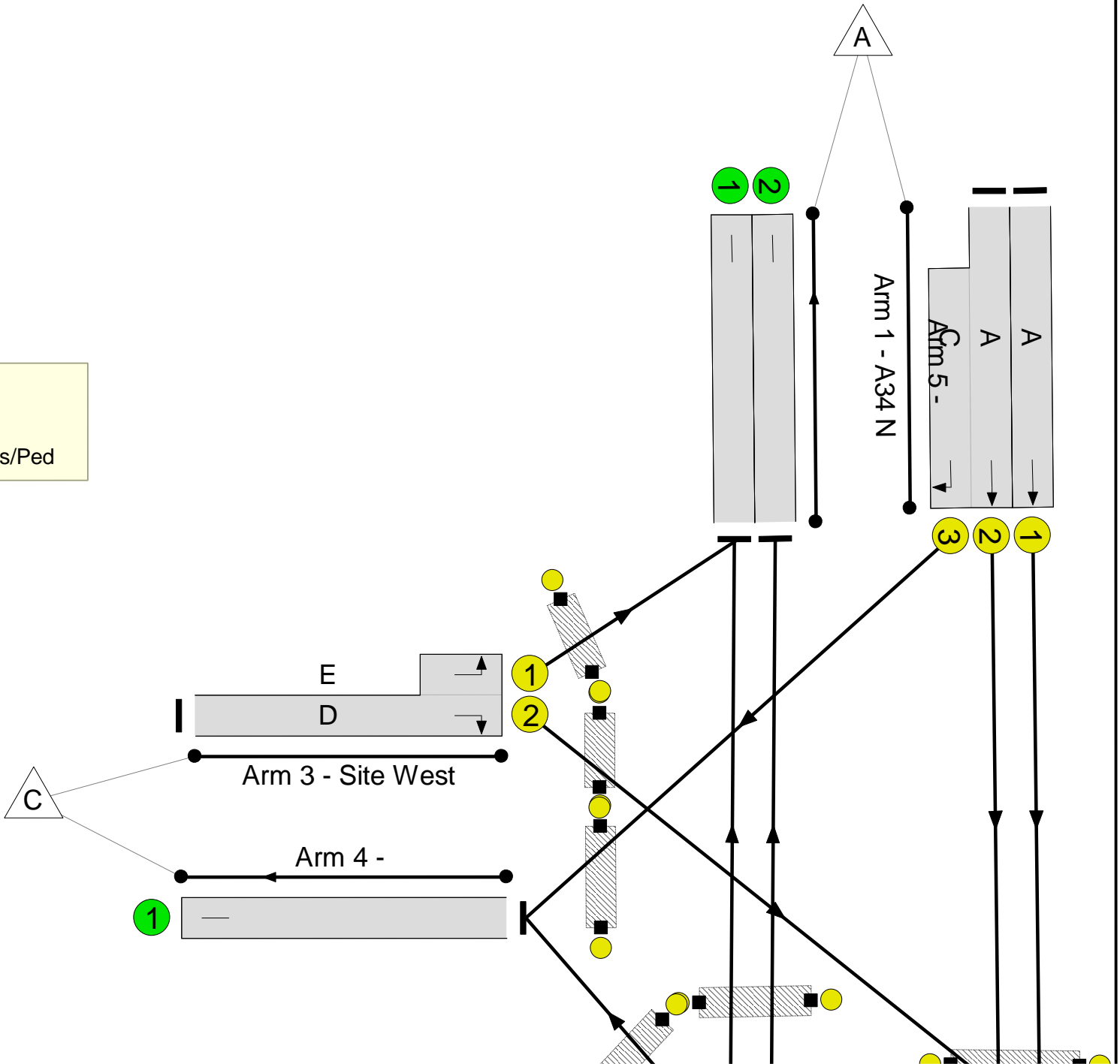
Stage Timings

Stage	1	2	3
Duration	53	5	6
Change Point	0	61	75

Signal Timings Diagram



A34_Site Access
PRC: 14.8 %
Total Traffic Delay: 15.8 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Signal Junction Option	-	-	N/A	-	-		-	-	-	-	-	-	78.4%
A34_Site Access	-	-	N/A	-	-		-	-	-	-	-	-	78.4%
1/1	A34 N Ahead	U	N/A	N/A	A		1	53	-	591	1980	1188	49.7%
1/2+1/3	A34 N Right Ahead	U	N/A	N/A	A C		1	53:8	-	661	2120:1800	1259+23	51.5 : 51.5%
2/2+2/1	A34 S Left Ahead	U	N/A	N/A	B		1	53	-	913	1980:1842	1175+9	77.1 : 77.1%
2/3	A34 S Ahead	U	N/A	N/A	B		1	53	-	997	2120	1272	78.4%
3/2+3/1	Site West Left Right	U	N/A	N/A	D E		1	7:21	-	43	1886:1832	137+191	13.1 : 13.1%
4/1		U	N/A	N/A	-		-	-	-	19	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	931	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	997	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	609	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	649	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	24	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	24	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	67	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	J		1	70	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	K		1	56	-	0	-	0	0.0%

Full Input Data And Results

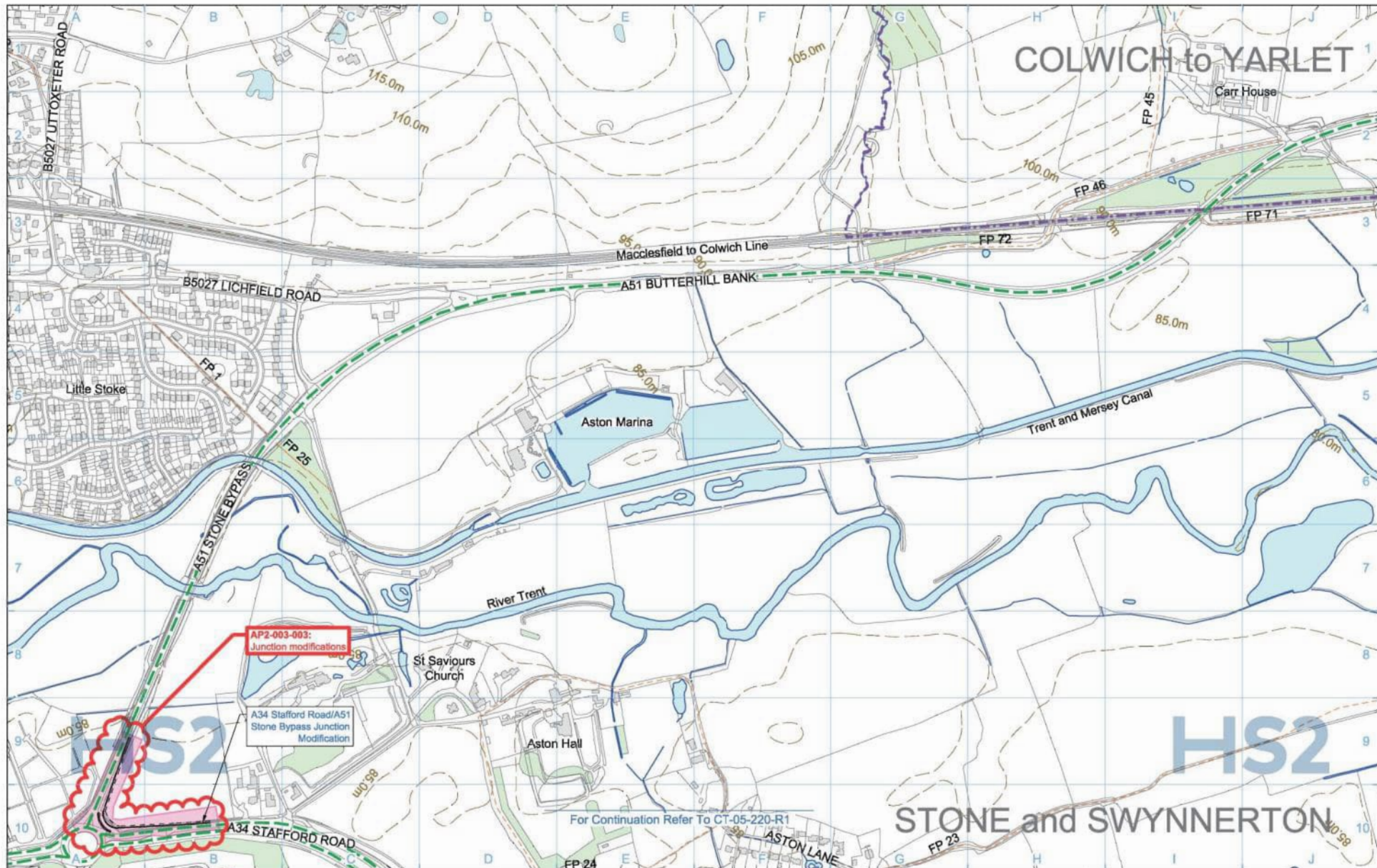
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Signal Junction Option	-	-	0	0	0	11.2	4.6	0.0	15.8	-	-	-	-
A34_Site Access	-	-	0	0	0	11.2	4.6	0.0	15.8	-	-	-	-
1/1	591	591	-	-	-	1.7	0.5	-	2.2	13.3	8.4	0.5	8.9
1/2+1/3	661	661	-	-	-	2.0	0.5	-	2.5	13.8	9.4	0.5	9.9
2/2+2/1	913	913	-	-	-	3.4	1.7	-	5.1	20.1	17.0	1.7	18.7
2/3	997	997	-	-	-	3.8	1.8	-	5.6	20.1	18.6	1.8	20.3
3/2+3/1	43	43	-	-	-	0.4	0.1	-	0.4	37.3	0.5	0.1	0.5
4/1	19	19	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	931	931	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	997	997	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	609	609	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	649	649	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		14.8	Total Delay for Signalled Lanes (pcuHr):			15.79	Cycle Time (s): 90			
			PRC Over All Lanes (%):		14.8	Total Delay Over All Lanes(pcuHr):			15.79				

TECHNICAL NOTE

Stone Proposed Employment Local Plan Allocation – Modelling Work



APPENDIX D: HS2 Aston Roundabout Improvements



Legend	
Depot, station, headhouse or portal building	Borrow Pit
Tunnel portal	Storage / prefabrication / laydown areas
Main construction compound	Land potentially required during construction
Satellite construction compound	Extent of land potentially required during construction for mitigation planting
Railway systems compound	Temporary replacement community facility
Temporary material stockpile	Community Area boundary
	Tunnels external extent
	Construction traffic route
	Existing public right of way (PRoW)
	New, diverted or realigned PRoW
	Stopped-up PRoW
	Temporary PRoW diversion / realignment
Landscape earthworks	Existing woodland
Engineering earthworks	Existing buildings
Temporary highway diversion / realignment	Existing inland water
Main utility works	Existing watercourse
Rail alignment	Existing contours
Chainage (e.g. 10+000)	Rail alignment formation
	Temporary workers accommodation

Map Number	CT-05-220-R2
Map Name	Construction Phase SES2 and AP2 ES
Community Area	CA3 Stone and Swynnerton

HS2

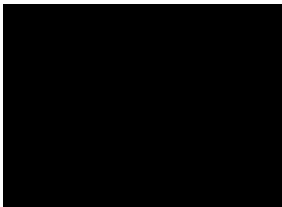
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Scale at A3: 1:5,000

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Doc Number: 2PT02-ARP-EV-DPL-000-055620 P03 Date: 11/01/19





7th December 2022

Dear 

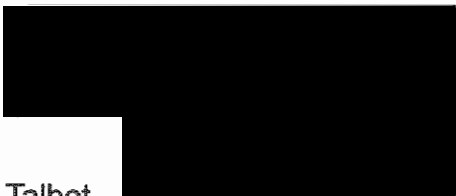
PROPOSED PLAN FOR STAFFORD.

Having recently visited the Plan for Stafford Consultation evening in Gnosall. I was disappointed to see that the two sites of land I put forward in Woodseaves, were not included in the proposed plan.

Could you please inform me of the reasons that preclude my sites being put forward. Both sites have good road access. One site in Lodge Lane abuts the settlement boundary, and is develop able. Whilst I agree the site off Riley Lane does just fall short of the Settlement Boundary for Woodseaves, it does give the opportunity to give the Woodseaves settlement a site for allotments, a car park for the school and affordable homes for locals who wish to stay in the Woodseaves area. I would point out that the current parking on the verge of the B5405 will soon disappear due to planning conditions granted to development of the yard at New Farm, Stafford Road, Woodseaves.

To refresh, I have included a copy of the map of the two sites, both coloured red for indication of there location.

Yours Faithfully

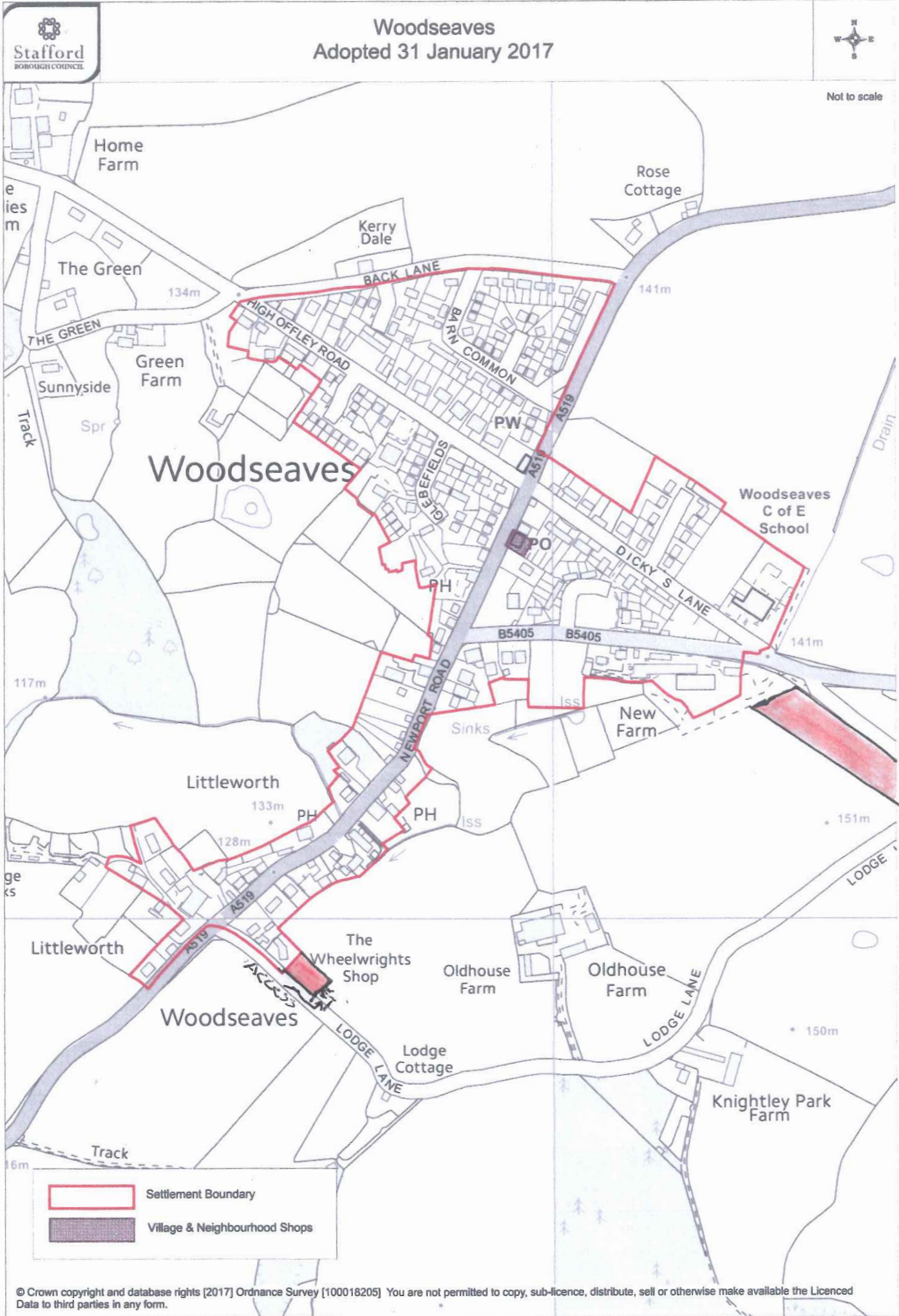


Nigel and Janet Talbot.

To:-



Forward Planning Department,
Planning Department,
Stafford Borough Council.
Riverside,
Stafford,
ST16 3AQ



From: Iwan Evans [REDACTED]
Sent: 12 December 2022 10:20
To: Strategic Planning Consultations
Cc: [REDACTED]
Subject: Stafford Borough Local Plan 2020-2040 Preferred Options consultation representation - West Midlands HAPC
Attachments: 0608-28.M3 Preferred Options.pdf

Good Morning,

Please find attached a representation to the Stafford Borough Local Plan 2020-2040 Preferred Options consultation, prepared on behalf of the West Midlands Housing Association Planning Consortium.

I would be grateful if you could confirm receipt of this email.

Kind regards,

Iwan Evans BSc (Hons) MSc
Assistant Planner
TETLOW KING PLANNING



[REDACTED]



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T: [REDACTED]

E: [REDACTED]
W: [REDACTED]

Strategic Planning and Placemaking
Stafford Borough Council
Civic Centre
Riverside
Stafford
ST16 3AQ

Date: 12 December 2022

Our Ref: IE M3/0608-28

By email only:

strategicplanningconsultations@staffordbc.gov.uk

Dear Sir/Madam

RE: STAFFORD BOROUGH LOCAL PLAN 2020-2040 PREFERRED OPTIONS CONSULTATION

Tetlow King Planning (TKP) represents the **West Midlands Housing Association Planning Consortium (WMHAPC)** which comprises leading Housing Associations across the West Midlands. Our clients' principal concern is to optimise the provision of affordable housing and to ensure the evolution and preparation of consistent policies that help deliver the wider economic and social outcomes needed throughout the West Midlands region.

As significant developers and investors in local people, the WMHAPC is well placed to contribute to local plan objectives and the Housing Associations to act as long-term partners in the community. The Plan for Stafford Borough was adopted in 2014 and the Plan for Stafford Borough – Part 2 was adopted in 2017. Both Plans cover the 20-year period 2011 to 2031. National policy requires local authorities to update their Local Plan every five years. Stafford Borough Council is currently progressing a new Local Plan for the Borough.

We welcome the opportunity to participate in the Stafford Borough Local Plan 2020-2040 Preferred Options consultation. This representation sets out a response to questions presented throughout the Local Plan Preferred Options online survey.

Q2. The development strategy and climate change response chapter includes the policies below. Do you agree with each of the policies in this chapter?

Policy 1. Development strategy (which includes the total number of houses and amount of employment land to be allocated and the Stafford and Stone settlement strategies)

Policy 1 'Development Strategy' identifies a housing target of 10,700 new homes (535 dwellings per annum) across the 20-year Plan period 2020 to 2040. The 2020 Stafford Economic Housing and Development Needs Assessment (EHDNA) identifies a net affordable housing need between 389 dwellings per annum (dpa) (25% income threshold) and 252 dpa (33% income threshold). Paragraph 11.68 on page 159 of the 2020 EHDNA states:

"Total affordable needs are in the range of between 252 and 389 affordable homes per annum 2020 to 2040. This is a significant proportion of the locally assessed need based on the standard method (408 dpa) of between 61% and 95%. If the housing need were to be increased to 711 dpa (the Regeneration scenario using PCU rates), the total identified affordable housing need could be not addressed at the current identified affordable need at 30%. The lower need of affordable housing need could be addressed at 36% but the upper end would require half of the identified requirement to be delivered as affordable."

Considering the above, and in line with Planning Practice Guidance (PPG) the WMHAPC suggests that the housing requirement of the Local Plan be carefully considered to ensure that the affordable housing needs of the Borough are being met. PPG explains that “An increase in the total housing requirement included in the plan may need to be considered where it could help deliver the required number of affordable homes” (Paragraph: 008 ID: 67-008-20190722).

Q8. The local plan proposed a policy (Policy 23) on affordable housing. Do you agree with this policy?

Policy 23 ‘Affordable Housing’ sets out varying affordable housing thresholds for sites depending on their location and classification as greenfield or brownfield land. Notably, part A(3) of Policy 23 requires an affordable housing contribution of “10% for greenfield sites and 0% for brownfield sites within the following areas: the Stafford town wards of Doxey & Castletown, Holmcroft, Common, Coton, Littleworth, Forebridge, Penkside, Manor, Highfields & Western Downs.”

Policy 23 is not consistent with national policy. The National Planning Policy Framework (NPPF, 2021) does not seek to disaggregate affordable housing thresholds based on whether a site is greenfield or brownfield land. National policy is clear that “Where a need for affordable housing is identified, planning policies should specify the type of affordable housing required” whilst all major developments should contain at least 10% affordable home ownership, with only a small number of exceptions to be made, as stated:

“Where major development involving the provision of housing is proposed, planning policies and decisions should expect at least 10% of the total number of homes to be available for affordable home ownership², unless this would exceed the level of affordable housing required in the area, or significantly prejudice the ability to meet the identified affordable housing needs of specific groups. Exemptions to this 10% requirement should also be made where the site or proposed development:

- a) provides solely for Build to Rent homes;*
- b) provides specialist accommodation for a group of people with specific needs (such as purpose-built accommodation for the elderly or students);*
- c) is proposed to be developed by people who wish to build or commission their own homes; or*
- d) is exclusively for affordable housing, an entry-level exception site or a rural exception site.”*
(Emphasis added).

(Paragraph 65, NPPF, 2021)

Part F of Policy 23 seeks a proposed tenure mix for affordable housing of 65% social rented housing, 25% First Homes and 10% shared ownership. The Borough Council should ensure a flexible approach to the application of the affordable housing tenure mix requirements. This will help ensure that the criteria does not hinder the viability of affordable homes and their subsequent delivery.

Q10. The local plan proposes policies around homes for life, rural exception sites, new rural dwellings, replacement dwellings, extension of dwellings, residential subdivision and conversion, housing mix and density, residential amenity and extension to the curtilage of a dwelling.

The relevant policies are: 24, 26, 27, 28, 29, 21, 31, 32 and 33.

Do you agree with these policies?

Policy 24 ‘Homes for Life’

Whilst it is appreciated that the application of Nationally Described Space Standard (NDSS) has been viability tested, there has been no evidence put forward that demonstrates the need for the implementation of NDSS. PPG is clear that “Local planning authorities will need to gather evidence to

¹ Applying the definition in Annex 2 to this Framework.

² As part of the overall affordable housing contribution from the site.

determine whether there is a need for additional standards in their area, and justify setting appropriate policies in their Local Plans.” (Paragraph: 002 ID: 56-002-20160519) (Emphasis added)

At present the Local Plan Preferred Options document offers no justification or identified need for the use of NDSS within the Borough. The application of NDSS where there is no evidenced need is likely to undermine the viability of affordable housing developments and result in fewer affordable homes being delivered throughout Stafford.

NDSS are not a building regulation and only applied within the planning system as a form of technical planning standard. It is not essential for all dwellings to achieve these standards in order to provide good quality living. For affordable housing in particular, there may be instances where achieving NDSS is impractical and unnecessary. It is suggested that if the Council wishes to introduce such a policy that the need for its application be fully evidenced in line with PPG:

“Where a need for internal space standards is identified, local planning authorities should provide justification for requiring internal space policies. Local planning authorities should take account of the following areas:

- *need – evidence should be provided on the size and type of dwellings currently being built in the area, to ensure the impacts of adopting space standards can be properly assessed, for example, to consider any potential impact on meeting demand for starter homes.*
- *viability – the impact of adopting the space standard should be considered as part of a plan’s viability assessment with account taken of the impact of potentially larger dwellings on land supply. Local planning authorities will also need to consider impacts on affordability where a space standard is to be adopted.*
- *timing – there may need to be a reasonable transitional period following adoption of a new policy on space standards to enable developers to factor the cost of space standards into future land acquisitions.”*

(Paragraph: 020 ID: 56-020-20150327)

We therefore recommend that part D of Policy 24 is removed unless it can be demonstrated that there is a clear need for such a standard in all residential properties in Stafford.

Policy 25 ‘Rural Exception Sites’

The WMHAPC welcomes the Borough Council’s inclusion and support for a Rural Exception Site policy and would like to reiterate the ability of Rural Exception Sites to address the housing needs of communities in rural areas. As such, in line with PPG, Stafford Borough Council may wish to strengthen its working relationship with relevant groups to help ensure the delivery of Rural Exception Sites. This includes Housing Associations, which are well placed to make a meaningful contribution to such discussions (Paragraph: 015 ID: 67-015-20210524).

We note that part A of Policy 25 states that Rural Exceptions Schemes will be supported in principle if they are *“outside of but directly adjoining the settlement boundaries of tier 4 larger and tier 5 smaller settlements and in other locations allocated in a ‘made’ neighbourhood plan”*. The WMHAPC encourages the Council to also accept Rural Exception Schemes on the edge of the tier 1, 2 and 3 settlements in order to maximise the potential of much needed affordable housing delivery as evidenced by the 2020 Stafford EHDNA. There is no restriction in the NPPF (2021) that prevents Rural Exceptions Schemes from being located on the edge of larger settlements.

Additionally, part B(4) of Policy 25 requires that applications for Rural Exception Sites should be *“justified by a local housing needs assessment.”* However, the Council should look to accept alternative sources of justification, such as the housing register, given that acquiring or undertaking a local housing needs assessment can often be difficult (due to sourcing or local politics for example) and/or delay the progress of an application detrimentally. As it is currently drafted, part B(4) of Policy 25 would likely frustrate the delivery of affordable housing in Stafford given that there is no flexibility in how applicants can demonstrate and justify the need for a Rural Exception Site.

General Comments

We would like the new Local Plan to recognise the role of Housing Associations in providing affordable housing in Stafford. It would be beneficial to see the Council recognise the role of Housing Associations and encourage developers to have early active engagement with Housing Associations in the next round of consultation. Early engagement enables Housing Associations to have an active role in the planning and design of developments to ensure that development addresses local housing needs and meets the management requirements of the WMHAPC. In response to this section, the WMHAPC would like to accept the offer of engagement to help with understanding existing and likely future viability issues.

The above comments are intended to be constructive, to ensure the policies are found sound at examination. We would like to be consulted on further stages of the above document and other publications by the Council, by email only to [REDACTED] please ensure that the **West Midlands Housing Association Planning Consortium** is retained on the consultation database, with **Tetlow King Planning** listed as its agent.

Yours faithfully

[REDACTED]

For and On Behalf Of
TETLOW KING PLANNING

[REDACTED]

From: Natasha Styles [REDACTED]
Sent: 12 December 2022 09:23
To: Strategic Planning Consultations
Subject: Stafford Borough Local Plan Preferred Options - Representation
Attachments: 2022_McCarthy Stone response to Stafford BC Preferred Options consultation.pdf

Please find attached a representation with respect to your consultation on the Stafford Borough Local Plan Preferred Options. This specifically addresses the need for specialist housing for older people and policies 23, 24 and 4.

With kind regards
Natasha Styles

Natasha Styles
Group Planning Associate

The Planning Bureau Limited

[REDACTED]
[REDACTED]

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The Planning Bureau Limited

Bournemouth • Coventry • Hatfield • Manchester • Ringwood • Woking • York

Strategic Planning and Placemaking
Stafford Borough Council
Civic Centre
Riverside
Stafford
ST16 3AQ

9th December 2022

Dear Sirs,

McCARTHY STONE RESPONSE TO STAFFORD BOROUGH LOCAL PLAN PREFERRED OPTIONS CONSULTATION

Thank you for the opportunity to comment on the Stafford Local Plan Preferred Options consultation. McCarthy Stone is the leading provider of specialist housing for older people. Please find below our comments on the consultation which specifically addresses the need for specialist housing for older people and policies 23, 24 and 4.

Older persons need - Page 16, bullet 3 and para 24.8

Thank you for the opportunity to comment on the Stafford Borough Council Local Plan Preferred Options consultation. McCarthy Stone is the leading provider of specialist housing for older people.

Page 16 of the Preferred Options Document identifies some key challenges. Bullet 3 identifies that *'Meeting the housing needs of the growing older population will be an important challenge. Many of these needs will be able to be met by supporting residents to continue living in their own homes. This can be achieved by future proofing homes to ensure residents can live in them their whole lives, but there will also be a need for the continued provision of specialist older persons' housing, including extra care units to allow for movement between homes'*. The plan is supported by a Stafford Borough Economic and Housing Development Needs Assessment (EHDNA) (Lichfields, 2020). Para 24.8 of the Preferred Options referencing this evidence states *'that older households will make up the majority of future household growth in the Borough. Single person older households are expected to make up 47% of future growth, and when older couples are included this rises to 72%'*. The draft Issues and Options document then identifies that *'The EHDNA models a need for around 466 bed spaces in care homes with nursing and around 525 bed spaces in care homes without nursing by 2040. These 991 bed spaces are modelled on the basis that the same proportion of older households in 2040 will live in care homes as they do at present. As the EHDNA acknowledges, there is uncertainty over this in view of the potential for more people to remain in their homes longer'*. Neither the plan or supporting evidence then try and quantify the need for other forms of specialist housing for the elderly as defined by PPG, Paragraph: 010 Reference ID: 63-010-20190626, despite the key challenges identifying that *'the continued provision of specialist older persons' housing, including extra care units to allow for movement between homes'*.

Government's policy, as set out in the revised NPPF, is to boost significantly, the supply of housing. Paragraph 60 reads:

"To support the Government's objective of significantly boosting the supply of homes, it is important that a sufficient amount and variety of land can come forward where it is needed, that the needs of groups with specific housing requirements are addressed and that land with permission is developed without unnecessary delay."

The revised NPPF looks at delivering a sufficient supply of homes, Paragraph 62 identifies within this context, the size, and type and tenure of housing needed for different groups in the community should be assessed and reflected in planning policies including older people.

In June 2019 the PPG was updated to include a section on Housing for Older and Disabled People, recognising the need to provide housing for older people. Paragraph 001 Reference ID: 63-001-20190626 states:

[REDACTED]

[REDACTED]

*“The need to provide housing for older people is **critical**. People are living longer lives and the proportion of older people in the population is increasing. In mid-2016 there were 1.6 million people aged 85 and over; **by mid-2041 this is projected to double to 3.2 million**. Offering older people a better choice of accommodation to suit their changing needs can help **them live independently for longer, feel more connected to their communities and help reduce costs to the social care and health systems**. Therefore, an understanding of how the ageing population affects housing needs is **something to be considered from the early stages of plan-making through to decision-taking**” (emphasis added).*

Paragraph 003 Reference ID: 63-003-20190626 recognises that:

“The health and lifestyles of older people will differ greatly, as will their housing needs, which can range from accessible and adaptable general needs housing to specialist housing with high levels of care and support.”

Thus, a range of provision needs to be planned for. Paragraph 006 Reference ID: 63-006-20190626 sets out; *“plan-making authorities should set clear policies to address the housing needs of groups with particular needs such as older and disabled people. These policies can set out how the plan-making authority will consider proposals for the different types of housing that these groups are likely to require.”*

The PPG Paragraph: 010 Reference ID: 63-010-20190626 defines the different types of specialist housing for older people and this identifies that such housing can include age restricted general market housing, retirement living or sheltered housing, extra car housing or housing with care, and residential care homes and nursing homes.

Therefore, recognising that specialist housing for older people is more than a care or nursing home bed space and has its own requirements and cannot be successfully considered against criteria for general family housing is important.

Need for Older Persons' Housing

It is well documented that the UK faces an ageing population. Life expectancy is greater than it used to be and as set out above by 2032 the number of people in the UK aged over 80 is set to increase from 3.2 million to 5 million (ONS mid 2018 population estimates). Between 2014 and 2039, the ONS project that over 70 per cent of projected household growth will be made up of households with someone aged 60 or older.

It is generally recognised (for example The Homes for Later Living Report September 2019). That there is a need to deliver **30,000 retirement and extra care houses a year** in the UK to keep pace with demand. Indeed the recent Mayhew Review (November 2022) entitled ‘The Mayhew Review Future-proofing retirement living’ recommends *‘an accelerated programme of retirement housing construction with up to **50,000 new units a year**’*

The age profile of Stafford can be drawn from the 2018 population projections from the Office for National Statistics. This advises that there were 30,271 persons aged 65 and over in 2018, accounting for 22.3% of the total population of the Borough. This age range is projected to increase by 12,990 individuals, or 43%, to 43,262 between 2018 and 2043. The population aged 65 and over is expected to increase to account for 27.5% of the total population of the Borough by 2043.

In 2018 there were 7,762 persons aged 80 and over, individuals who are more likely to be frail and in need of long-term assistance. The number of people in this age range is forecasted to increase by 7,202 individuals, or 92.8%, to 14,964 between 2018 and 2043. The population aged 80 and over is anticipated to represent a higher proportion of Stafford’s residents, accounting for 5.7% of the total population in 2018 and increasing to 9.5% by 2043. The increase in older people is confirmed within the Stafford Borough Economic and Housing Development Needs Assessment (EHDNA) (Litchfields, 2020) at para 14.12 that states *‘In line with national trends, the population of older people in the Borough is projected to be the fastest growing in the next 20 years, increasing by 34.9% by 2040’.*

It is therefore clear there will be a significant increase in older persons over the Plan Period and the provision of suitable housing and care to meet the needs of this demographic should be a priority of the emerging Local Plan.

Neither the Preferred options plan or supporting evidence identify the need for older person's housing in line with the requirements of the NPPF and PPG and therefore as written the preferred options is not considered to be effective or consistent with national policy.

Recommendation:

It is therefore recommended that the council:

- Updates the Economic and Housing Development Needs Assessment to ensure that housing need for older people is identified for all typologies for the whole plan period
- Amend para 24.8 once the evidence is updated to define fully older person's housing need in line with the typologies in the PPG for the whole plan period and not just care and nursing home spaces.

POLICY 23. Affordable housing

Thank you for the opportunity to comment on the Stafford Borough Council Local Plan Preferred Options consultation. McCarthy Stone is the leading provider of specialist housing for older people.

Policy 23 sets a variable on site affordable housing requirement depending on the settlement ranging from 40% to 0%. The policy allows a financial contribution only in exceptional circumstances where on site and off site is shown to not be feasible or viable.

Stafford Borough Council Local Plan and CIL Viability Assessment', September 2022, Aspinall Verdi states on page 6, appendix 1 *'We have not appraised any housing for elderly people schemes explicitly. Housing for elderly people can be delivered in various ways from individual self-builder to larger schemes involving enabling development. All our residential typologies are on the basis that land can be acquired and developed into a new unit (including appropriate allowance for profit). Where housing for elderly people involves plot sales and / or part completed units (e.g. foundations, or 'wind and watertight') the working assumption is that the developers' profit is commensurate with the development work undertaken and therefore there is sufficient development surplus to incentivise the builder to complete the unit'.*

This approach is extraordinary. There is clearly a significant need for purpose built specialised housing for older people and these are typically built by specialist developers such as McCarthy Stone as apartments. This is most likely to represent the vast majority of such development in any given area and therefore ought to be and can be viability assessed as part of a Local Plan process. Reference to plot sales when considering older persons housing presents a wholesale misunderstanding of older persons housing which is surprising given the authors has undertaken many assessments of it. The authors will also be aware that older persons housing presents significantly different characteristics to standard housing.

The council will be aware of the increased emphasis on Local Plan viability testing in Paragraph 58 of the NPPF and that the PPG states that *"The role for viability assessment is primarily at the plan making stage. Viability assessment should not compromise sustainable development but should be used to ensure that policies are realistic, and that the total cumulative cost of all relevant policies will not undermine deliverability of the plan"* (Paragraph: 002 Reference ID: 10-002-20190509). The evidence underpinning the council's policy requirements should therefore be robust and be used to form deliverable and realistic policies.

The council should note that the viability of specialist older persons' housing is more finely balanced than 'general needs' housing and we are strongly of the view that the older person's housing typologies should be robustly assessed separately contrary to the views of the consultant who undertook the viability assessment to inform the Local Plan. It cannot be simply regarded as standard housing. Specialist housing schemes for older people tend to be based around communal facilities and community living and delivered on smaller sites. Older persons housing therefore differs from a standard model of development because as confirmed within the PPG (Paragraph: 010 Reference ID: 63-010-20190626) it generally has additional facilities such as extensive communal areas, such as space to socialise, a wellbeing centre as well as a care service with 24 hour access to support services and staff, meals are also often available. This enables residents to live much more independently than they would otherwise. However, the facilities do take up floorspace which make the viability of such schemes much more finely balanced.

Undertaking viability of older person's housing schemes separately would accord with the typology approach detailed in Paragraph: 004 (Reference ID: 10-004-20190509) of the PPG which states that. *"A typology approach is a process plan makers can follow to ensure that they are creating realistic, deliverable policies based on the type of sites that are likely to come forward for development over the plan period"*. If housing for older people is not assessed separately to market housing, the delivery of much needed specialised housing for older people may be significantly delayed with protracted discussion about policy areas such as affordable housing policy requirements which are wholly inappropriate when considering such housing need.

We advise that by limiting scrutiny of the Local Plan Viability Assessment to exclude older person's deviates away from national guidance and the plan is therefore not considered to not be positively prepared, justified, effective and crucially is not consistent with national policy.

In addition, through the process of policy formation as a minimum, the Local Plan and its evidence base should clarify that certain specialist housing schemes such as those meeting the needs of older people should be exempt from providing First homes and Starter homes. This is because specialist housing for older people is often delivered on smaller sites of up to 50 units in central locations where it would not be viable to deliver on site First Homes, Starter homes and Discount Market Sales. This would be in line with the council's Viability assessment that states on page 6, when summarising the NPPF para 65 confirms that:

'exemptions to this 10% requirement should also be made where the site or proposed development:

a) provides solely for Build to Rent homes;

b) provides specialist accommodation for a group of people with specific needs (such as purpose-built accommodation for the elderly or students);

c) is proposed to be developed by people who wish to build or commission their o

d) is exclusively for affordable housing, an entry-level exception site or a rural exception site'.

Recommendation:

The council must ensure that an up to date viability assessment is undertaken to inform the future plan and that this assessment should include older person's housing typologies in line with PPG. The council must then ensure the update is properly consulted upon prior to a submission draft being released for consultation and used to inform the plan. To note, the new viability assessment must include a number of typologies that includes older person's housing and if older person's housing is found to be not viable an exemption must be provided within the plan in order to prevent protracted conversations at the application stage over affordable housing provision. The policy or supporting paragraphs should confirm that exemptions to the 10% requirement to deliver affordable home ownership in line with para 64 of the NPPF and as expressed in the council's evidence.

POLICY 24. Homes for life

Thank you for the opportunity to comment on the Stafford Borough Council Local Plan Preferred Options consultation. McCarthy Stone is the leading provider of specialist housing for older people.

Policy 24 points A to C.

The draft policy points A-C requires 10% of homes to be built to M4 (2) and 10% to M4 (3) standards with age restricted market housing built to M4 (2) standards.

The council should initially recognise that the proposed changes in building regulations will require all homes to be built to part M4(2) of the Building Regulations. This will remove the need to reference this in the local plan and should be removed.

Whilst we acknowledge that PPG Paragraph 003 Reference ID: 63-003-20190626 recognises that *"the health and lifestyles of older people will differ greatly, as will their housing needs, which can range from accessible and adaptable general needs housing to specialist housing with high levels of care and support"*, the council should note that ensuring that residents have the ability to stay in their homes for longer is not, in itself, an appropriate manner of meeting the housing needs of older people.

Adaptable houses do not provide the on-site support, care and companionship of specialist older persons' housing developments nor do they provide the wider community benefits such as releasing under occupied

family housing as well as savings to the public purse by reducing the stress of health and social care budgets. The Healthier and Happier Report by WPI Strategy (September 2019) calculated that the average person living in specialist housing for older people saves the NHS and social services £3,490 per year. A supportive local planning policy framework will be crucial in increasing the delivery of specialist older persons' housing and it should be acknowledged that although adaptable housing can assist it does not remove the need for specific older person's housing. Housing particularly built to M4(3) standard may serve to institutionalise an older persons' scheme reducing independence contrary to the ethos of older persons and particularly extra care housing and this should be recognised within the plan.

We would also like to remind the council of the increased emphasis on Local Plan viability testing in Paragraph 58 of the NPPF and that the PPG states that "*The role for viability assessment is primarily at the plan making stage. Viability assessment should not compromise sustainable development but should be used to ensure that policies are realistic, and that the total cumulative cost of all relevant policies will not undermine deliverability of the plan*" (Paragraph: 002 Reference ID: 10-002-20190509). M4 2 and 3 Housing has a cost implication and may serve to reduce the number of dwellings and further reduce viability.

Recommendation:

Delete points A-C

Policy 24 point E

The draft policy point E requires a certain level of private amenity space that includes 65 Sq. m for a 3 bed plus housing, 50sqm for a 2 bed house and a balcony or private space for a flat maisonette.

The council should note that open space needs of older people are much less than for mainstream housing. For older people the quality of open space either on site or easily accessible for passive recreation is much more important than formal open space. The Local Plan, if the council decide to set a minimum size for residential outdoor amenity open space, should provide an exemption for older people's housing schemes but consider the quality and function of the amenity space instead. With respect to flats and maisonettes it should be noted that there are often other planning issues that restrict the incorporation of a balcony on flats such as overlooking and this should also be noted with the policy

Recommendation:

Amend policy 24 point E as follows:

Private external space

E. All new housing shall, unless there is a compelling justification for departure, provide at least the following levels of external private amenity space:

1. 3 or more bedroom houses - 65 square metres;
2. 2-bedroom houses - 50 square metres; and
3. Flats/maisonettes - a balcony or private space, **unless overridden via another planning reasons such as evidence of overlooking**

Older people's housing schemes should be exempt from the above requirements as quality of amenity spaces for passive recreation is more important to older people than quantity.

Policy 24, point G

Point G tries to support age restricted general housing, retirement housing, extra care housing or residential care facilities and particularly directs these to certain settlements. However rather than directly older persons' housing towards certain settlements flexibility should be also shown and the policy should be amended to make sure that older person's housing, given the need, can also be delivered in sustainable locations that are close to a shop, community facilities and public transport links.

Recommendation:

Amend policy 24 point G as follows:

G. Proposals for age-restricted general housing, retirement housing, extra care housing or residential care facilities will be supported in principle. Proposals for extra care or residential care facilities should be located at Stafford, Stone, Meecebrook or at tier 4 or tier 5 settlements **or in sustainable locations that are close to community facilities and public transport links.**

Policy 4 Climate change development requirements

Policy 4 point A requires applicants to demonstrate how resources are used efficiently as part of the construction and operation of a building and show how embodied emissions have been taken into consideration through the production of an embodied carbon assessment. The policy then through point B requires applications to be accompanied by an energy statement that shows how a number of points have been achieved including no on site fossil fuel consumption, energy use is minimised and on site renewable generation is maximised equivalent to at least the on-site energy demand. The point also allows compliance via Passivhaus accreditation.

The Council's commitment to meeting embodied carbon and net zero targets is commendable.

Currently it appears that the council is going to achieve embodied carbon and net zero through having mandatory standards from adoption of the plan that go beyond government targets. However, it is our view that any requirement should be 'stepped' in line with Government targets. This is more desirable as there is considerable momentum from Government in preparing enhanced sustainability standards as it is clear the energy efficiency requirements for domestic and non-domestic buildings will increase sharply in the coming years. Aligning the Council's requirement for net zero development with those of Government would therefore be pragmatic and more achievable.

As such we would like to remind the council of the increased emphasis on Local Plan viability testing as expressed in PPG Paragraph: 002 Reference ID: 10-002-20190509). The introduction of an embodied carbon and net zero policy must not be so inflexible that it deems sites unviable and any future policy needs to ensure this to make sure it is consistent with NPPF/PPG and can be justified by the council. The viability of specialist older persons' housing is more finely balanced than 'general needs' housing and this should be recognised as detailed in our response to Policy 24.

Thank you for the opportunity for comment.

Yours faithfully



Natasha Styles
Group Planning Associate

From: Holly Okey [REDACTED]
Sent: 09 December 2022 14:49
To: Strategic Planning Consultations
Cc: [REDACTED]
Subject: FW: Representations to the Local Plan
Attachments: Marston Farm Representations Letter December 2022.pdf; Marston Farm Stafford BC Preferred-Options-Consultation-Response-Form.pdf; Marston Farm Representations Letter December 2022 (without appendices).pdf

Good afternoon,

Please find attached representations prepared by Turley on behalf of Vistry in respect to Marston Farm in response to the Stafford BC Local Plan 2020-2040 Preferred Options consultation.

Due to file size, a full version of the representations (including appendices) has been uploaded to the following WeTransfer link: [REDACTED]

Please contact me if you have any questions.

Could you please confirm receipt of the attached document?

Many thanks
Holly

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Contact Details

Full name (required): Vistry Group c/o Jessica Herritty, Turley

Email (required): 

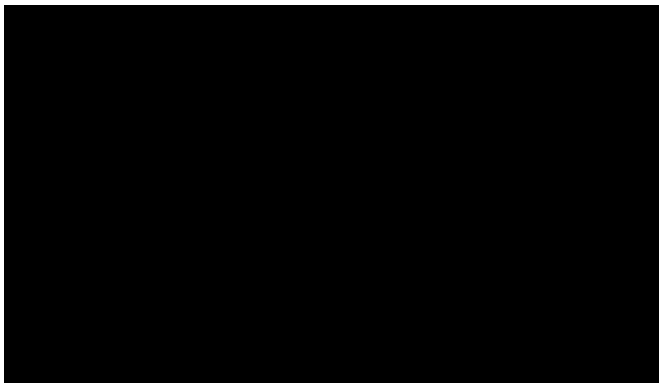
Tick the box that is relevant to you (required):

- Statutory Bodies and Stakeholders
- Agents and Developers
- Residents and General Public
- Prefer not to say

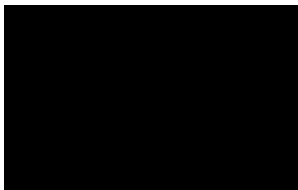
Organisation or Company Name (if applicable):

Tick the box that is relevant to you:

(This is a non-mandatory question but helps us understand the demographic of our respondents.)



Do you want to be added to our Local Plan consultation database to be notified about future local plan updates?



Contents

The Local Plan Preferred Options includes the topics listed below.

Each topic has a series of standard questions in order for you to provide a response. You do not have to respond to each of the topics or answer all of the questions. The page numbers below relate to the page the topic starts in this consultation form.

- **Vision and Objectives** - page 5
- **Development Strategy and Climate Change Response** - page 6
- **Meecebrook Garden Community** - page 9
- **Site Allocation Policies** - page 10
- **Economy Policies** - page 14
- **Housing Policies** - page 16
- **Design and Infrastructure Policies** - page 18
- **Environment Policies** - page 19
- **Connections** - page 20
- **Evidence Base** - page 21
- **General Comments** - page 22

All of the local plan documents and the Local Plan 2020-2040: Preferred Options document are available here: <https://www.staffordbc.gov.uk/local-plan>

Vision and Objectives

Q1. There are eight objectives for the local plan to achieve the vision of:

"A prosperous and attractive borough with strong communities."

Of the following objectives which 3 are the most important to you?

Please make your choice from the list of objectives below. (Maximum of 3 to be selected)

Local Plan Preferred Options document reference: Page 12

- Contribute to Stafford Borough being net zero carbon by ensuring that development mitigates and adapts to climate change and is future proof.
- To develop a high value, high skill, innovative and sustainable economy.
- To strengthen our town centres through a quality environment and flexible mix of uses.
- To deliver sustainable economic and housing growth to provide income and jobs.
- To deliver infrastructure led growth supported by accessible services and facilities.
- To provide an attractive place to live and work and support strong communities that promote health and wellbeing.
- To increase and enhance green and blue infrastructure in the borough and to enable greater access to it while improving the natural environment and biodiversity.
- To secure high-quality design.

Development Strategy and Climate Change Response

Q2. The development strategy and climate change response chapter includes the policies below.

Do you agree with each of the policies in this chapter?

Select Yes or No for each of the policies and then use the box below each policy to add additional comments.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: Pages 19 to 40

Policy 1. Development strategy (which includes the total number of houses and amount of employment land to be allocated and the Stafford and Stone settlement strategies)

X Yes / No

Policy 1 Comments:

Please refer to the accompanying representations letter

Policy 2. Settlement Hierarchy (Tier 1: Stafford, Tier 2: Stone, Tier 3: Meecebrook, Tier 4: Larger settlements, Tier 5: Smaller settlements)

X Yes / No

Policy 2 Comments:

Please refer to the accompanying representations letter

Policy 3. Development in the open countryside - general principles

Yes / No

Policy 3 Comments:

N/a

Policy 4. Climate change development requirements

Yes / No

Policy 4 Comments:

Please refer to the accompanying representations letter

Policy 5. Green Belt

Yes / No

Policy 5 Comments

N/a

Policy 6. Neighbourhood plans

Yes / No

Policy 6 Comments:

N/a

Meecebrook Garden Community

Q3. The local plan proposes a new garden community called Meecebrook close to Cold Meece and Yarnfield. This new community is proposed to deliver housing, employment allocations, community facilities, including new schools, sport provision and health care facilities, retail and transport provision, which includes a new railway station on the West Coast Main Line, and high quality transport routes.

Do you agree with the proposed new garden community?

X Yes / No

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: Pages 41 to 45

Comments:

Please refer to the accompanying representations letter

Site Allocation Policies

Q4. The Stafford Borough Local Plan 2020 - 2040 proposes allocations for both housing and employment to meet the established identified need.

The site allocation policies chapter includes the policies below for housing and employment allocations.

Do you agree with the proposed allocations?

Select Yes or No for each of the following policies and then use the box below each policy to add additional comments.

Explain your reasoning and add any evidence to justify your response. Please provide details of alternative locations for housing and employment growth if you consider this is appropriate.

Ensure any comments relate to the policy comment box you are completing.

If you do want to submit a new site for consideration through the local plan process, we are still accepting sites through the Call for Site process, details are available here: <https://www.staffordbc.gov.uk/call-sites-including-brownfield-land-consultation>

Local Plan Preferred Options document reference: Pages 47 to 56 and appendix 2.

Policy 9. North of Stafford

X Yes / No

Policy 9 Comments:

Please refer to the accompanying representations letter

Policy 10. West of Stafford

Yes / No

Policy 10 Comments:

N/a

Policy 11. Stafford Station Gateway

Yes / No

Policy 11 Comments:

N/a

Policy 12. Other housing and employment land allocations.

(In your response, please specify which particular site you are referring to, if relevant.)

Yes / No

Policy 12 Comments:

N/a

Q5. The Stafford Borough Local Plan 2020 - 2040 proposes to allocate land for Local Green Space and Countryside Enhancement Areas throughout the borough.

The policies which relate to these proposals are listed below.

Do you agree with the proposed allocations?

Select yes or no for each of the policies and then use the box below each policy to add additional comments.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: Pages 56 to 59 and appendix 2.

Policy 13. Local Green Space

(In your response, please specify which particular site you are referring to, if relevant)

Yes / No

Policy 13 Comments:

N/a

Policy 14. Penk and Sow Countryside Enhancement Area (Stafford Town)

Yes / No

Policy 14 Comments:

N/a

Policy 15. Stone Countryside Enhancement Area

Yes / No

Policy 15 Comments:

N/a

Economy Policies

The Economy Policies chapter contains policies that seek to protect employment land and support economic growth within the Borough.

Q6. The local plan seeks to protect previously allocated and designated industrial land and support home working and small-scale employment uses.

The relevant policies are: 16, 17 and 18.

Do you agree with these policies?

Yes / No

Select Yes or No and then use the box to add additional comments. If referring to a specific policy, please include the policy number.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: pages 61 to 65

Comments:

N/a

Q7. The Stafford Borough Plan proposes policies around the town centres uses, agriculture and forestry development, tourism development and canals.

The relevant policies are: 19, 20, 21 and 22.

Do you agree with these policies?

Yes / No

Select Yes or No and then use the box below to add additional comments. If referring to a specific policy, please include the policy number.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: pages 65 to 71

Comments:

N/a

Housing Policies

The Housing Policies chapter contains policies that seek to provide for identified need across the borough and support homeowners.

Q8. The local plan proposed a policy (Policy 23) on affordable housing.

Do you agree with this policy?

Yes / X No

Select yes or no and then use the box below to add additional comments.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: pages 74 to 76

Comments:

Please refer to the accompanying representations letter

Q9. The local plan proposes a policy (Policy 30) to help meet identified local need for pitches for Gypsies and Travellers. There are 2 new proposed sites; one near Hopton and the other near Weston.

Do you agree with this policy?

Yes / No

Select yes or no and then use the box below to add additional comments. In your response, please specify which particular site you are referring to, if relevant.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: pages 84 to 86

Comments:

N/A

Q10. The local plan proposes policies around homes for life, rural exception sites, new rural dwellings, replacement dwellings, extension of dwellings, residential subdivision and conversion, housing mix and density, residential amenity and extension to the curtilage of a dwelling.

The relevant policies are: 24, 26, 27, 28, 29, 21, 31, 32 and 33.

Do you agree with these policies?

X Yes / No

Select yes or no and then use the box below to add additional comments. If referring to a specific policy, please include the policy number.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: pages 73 to 89

Comments:

Please refer to accompanying representations letter

Design and Infrastructure Policies

Q11. The design and infrastructure chapter contains policies on urban design general principles, architectural and landscape design, infrastructure to support new development, electronic communications, protecting community facilities and renewable and low carbon energy.

The relevant policies are: 34, 25, 36, 37, 38, 39 and 40.

Do you agree with these policies?

Yes / No

Select yes or no and then use the box below to add additional comments. If referring to a specific policy, please include the policy number.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: Pages 91 to 99.

Comments:

N/a

Environment Policies

Q12. The environment policies chapter contains policies on the historic environment, flood risk, sustainable drainage, landscapes, Cannock Chase Area of Outstanding Natural Beauty (AONB), Green and blue infrastructure network, biodiversity, Special Areas of Conservation (SAC), Trees, Pollution and Air Quality.

The relevant policies are: 31, 42, 43, 44, 45, 46, 47, 48, 49, 50 and 51.

Do you agree with these policies?

Yes / No

Select yes or no and then use the box below to add additional comments. If referring to a specific policy, please include the policy number.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: Pages 101 to 119.

Comments:

N/a

Connections

Q13. The connections policies chapter contains policies on transport and parking standards.

The relevant policies are: 52 and 53

Do you agree with these policies?

Yes / No

Select yes or no and then use the box below to add additional comments. If referring to a specific policy, please include the policy number.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: Pages 121 to 124.

Comments:

N/a

Evidence Base

To support the Local Plan 2020-2040 an evidence base has been produced.

The evidence base is available to view on our website here:

www.staffordbc.gov.uk/new-lp-2020-2040-evidence-base

Q14. Have we considered all relevant studies and reports as part of our local plan?

Yes / No

Select yes or no and then use the box below to add additional comments.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Comments:

N/a

Q15. Do you think there is any further evidence required?

Yes / No

Select yes or no and then use the box below to add additional comments.

If you think additional evidence is needed, please state what you think should be added and explain your reasoning.

Ensure any comments relate to the policy comment box you are completing.

Comments:

N/a

General Comments

If you have any further comments to make on the Local Plan Preferred Options document and evidence base, please use the box below.

Please refer to the accompanying representations letter

If you need further space to add comments, please add pages to the end of the consultation form and reference which question you are answering.

Thank you for taking the time to complete this consultation form.

Completed forms can be submitted by email to:
strategicplanningconsultations@staffordbc.gov.uk

Or returned via post to: Strategic Planning and Placemaking, Stafford Borough Council, Civic Centre, Riverside, Stafford, ST16 3AQ

The consultation closes at 12 noon on Monday 12 December 2022, comments received after this date may not be considered.

9 December 2022
Delivered by email

[REDACTED]
Stafford Borough Council
Civic Centre
Riverside
Stafford
ST16 3AQ

Ref: VISQ3000

Dear [REDACTED]

221123 VISTRY REPS - STAFFORD BOROUGH NEW PLAN PREFERRED OPTIONS

Turley are instructed by Vistry Group to represent their interests in relation to the Stafford Borough Council Draft Local Plan, and to formally respond to the Stafford Borough Preferred Options consultation.

Vistry Group welcome Stafford Borough Council's ongoing commitment to preparing the new Local Plan and request that these representations are read in combination with previous submissions made on their behalf.

Vistry Group

Vistry Group was formed in January 2020 following the successful acquisition of Linden Homes and the Galliford Try Partnerships & Regeneration businesses by Bovis Homes Group PLC. Most recently, Vistry Group have acquired Countryside Partnerships, further strengthening the business and making them the leading housebuilder in England by volume.

Vistry operate nationally and have retained the market housing brands of Bovis and Linden Homes. Vistry also now run an expanded Countryside Partnerships, working with local authorities, housing associations and investors to deliver affordable housing through Partner Delivery Programmes and Mixed Tenure offerings, and are the largest private sector provider of affordable housing.

Vistry have designed a new range of homes to meet the anticipated Future Homes Standard 2025 and are plotting these on sites now. These are gas-free, and, through a fabric-first approach, seek to reduce energy demand within homes in the first place, as well as featuring air-source heat pumps and heat recovery systems.

Vistry recognise the high environmental and social value of green and blue infrastructure, and, ahead of the national mandate, Vistry is designing in a minimum of 10% Biodiversity Net Gain into all its new communities.

[REDACTED]

[REDACTED]

They work in partnership with wildlife groups such as the Bumblebee Trust, British Hedgehog Preservation Society and the Bat Conservation Trust, to help protect these important species. Ways in which you might see these working relationships reflected in our schemes could include bee bricks, hedgehog highways and bat-friendly lighting schemes and foraging routes.

Land at Marston Farm, Stafford

Vistry Group are promoting a sustainable opportunity for strategic residential growth to the north west of Stafford. The site extends to approximately 22.40ha comprising agricultural land. It is bound by Marston Lane to the west, agricultural land to the south and east, and the Marston Farm farmstead to the north. Beyond Marston Farm to the north is the route of HS2 Phase 2a to Crewe.

Topographically, the site is relatively flat, the western boundary with Marston Lane is lined by a continuous hedge, as is the southern and eastern boundary. There is a line of sporadic trees within the southern extent of the site, otherwise it is open. A public right of way runs across the site, from the south west off Marston Lane to the north east where it meets an agricultural track.

The site is not subject to any local plan designation or any national statutory designation such as a SSSI, SAC, SPA, Ramsar site, AONB and is entirely located within flood zone 1.

Initial baseline technical work has informed the Illustrative Concept Plan (at Appendix 2) and conclude that the site is considered to have the potential to deliver a residential development of circa 450 houses in a strategic location. The baseline technical reports are included at Appendix 3-7 of these representations.

Furthermore, the site adjoins the highly sustainable new community on land north of Beaconside, benefitting from outline planning permission (Ref: 16/25450/OUT) granted in May 2022 for the delivery of up to 2,000 dwellings together with a wide range a services and facilities including a primary school, health centre and two new local centres. This strategic site will clearly deliver a wide range of benefits both for the new residents of that development, as well as the wider area.

The above ensures that this part of Stafford, surrounding the site at Marston Farm, is highly sustainable in its own right, notwithstanding its close proximity to Stafford Town Centre.

An Illustrative Concept Plan (**Appendix 1**) and technical reports (**Appendices 2-6**) are submitted with these representations to provide further detail of how this site can be delivered. This initial technical work demonstrates that there are no constraints to delivery.

Indeed, the site is assessed in the Strategic Housing and Economic Land Availability Assessment Update (SHELAA, 2022) as being available, suitable and achievable, concluding that it is "**potentially developable**" (SHELAA Ref: MAR04).

Notwithstanding the above, it is noted that although the site has been considered developable by the 2022 SHELAA, the site has not subsequently been assessed in the evidence base supporting the Preferred Options Plan, including in the Landscape Sensitivity Study and no clear justification is provided as to why this site has not been taken forward as a preferred option.

Representation to the plan

Vision

Vistry Group supports the overall vision of the Plan to create a prosperous and attractive borough with strong communities. However, as set out further below, the Plan demonstrates an over reliance on the

new settlement at Meecebrook to provide a substantial part of the housing land supply over the plan period.

The new settlement requires substantial early funding for infrastructure before development can commence, as set out in the draft allocation policy, and is paired with an unrealistic trajectory for delivery on the site comprising 3,000 new homes in the emerging Plan period and a further 3,000 beyond it.

To ensure the Plan can be found sound, in accordance with paragraph 35 of the National Planning Policy Framework (2021) (NPPF), there is a need to consider other sustainable options to ensure a robust and deliverable supply. For instance, land at Marston Farm is located on the edge of Stafford, identified by the adopted local plan as the largest urban area and most sustainable location within the Borough to direct growth. Initial site technical assessments have identified that it is capable of accommodating circa 450 new homes. Indeed, this site is positioned adjacent to the new community development at Beaconside (Ref: 16/25450/OUT, outline permission approved in May 2022) and would therefore form a natural extension of the new community.

Policy 1 Development Strategy and Policy 2 Settlement Hierarchy

These policies are two of the most important within the plan as they establish the development strategy and housing provision for the borough over the plan period. For the proposed plan period 2020 to 2040, provision is to be made for 10,700 new homes (535 new homes per year). As would be expected, the spatial strategy for delivery of the development needs reflects the settlement hierarchy established by Policy 2.

Vistry are supportive of the Council pursuing Option D (as set out in the Housing and Employment Land Numbers Topic Paper (Preferred Options Stage)). It rightly reflects an upwardly adjusted housing growth need to match forecasted employment growth, as well as including a contribution to the unmet needs of neighbouring authorities (in this case, the Greater Birmingham and Black Country Housing Market Area (GBBCHMA)). As the paper demonstrates, there is a clearly evidenced migratory relationship with the GBBCHMA which supports Stafford meeting a proportion of its unmet needs.

There is no question that there is a significant unmet need arising from the GBBCHMA:

- There is a remaining unmet need of **6,302 homes up to 2031** from the adopted Birmingham Development Plan (January 2017), as per the GBBCHMA fourth position statement addendum (December 2021).
- Based on their own assumptions the Black Country has an unmet need of **36,819 homes up to 2039** (the Black Country Urban Capacity Review Update (May 2021)). The previous draft of the Black Country Plan proposed allocations to reduce this to circa 28,000 homes, however the plan has now been abandoned and each authority will be preparing its own plan.
- Birmingham has now commenced a review of its plan. The Issues and Options version is currently published for consultation – that indicates there is a substantial shortfall from the city of circa **78,000 homes up to 2042**.

Vistry would contend that contributing to this unmet need is not contingent on it being delivered at Meecebrook (as suggested in the Housing and Employment Land Numbers Topic Paper). There are equally (if not more) sustainable locations for growth elsewhere in the borough (including Vistry’s site at Marston Farm), which can contribute to the unmet need.

Vistry are also broadly supportive of the spatial strategy in terms of focusing growth at Stafford. This reflects the plan's evidence base which demonstrates Stafford is by far the most sustainable location for growth in the borough.

Whilst we broadly agree with the strategy, we are of the view that there is the capacity for Stafford to make a greater contribution to the borough's housing needs from suitable sites, which are necessary given we are of the view Meecebrook will not deliver 3,000 homes by 2040 (as per our response to Policy 7).

Although Stafford is the focus for growth (predominantly from sites which already benefit from planning permission and were allocated in the adopted plan), the plan does put significant reliance upon the proposed allocation of the Meecebrook Garden Community (Policy 7) contributing around 3,000 homes (24%) of the total supply during the plan period, with a further 3,000 dwellings falling into a future Plan.

We comment on Meecebrook in response to Policy 7 below, including how realistic it is to assume it can deliver 3,000 homes before 2040.

Policy 7 Meecebrook Site Allocation

Whilst Vistry do not object to the principle of a new garden community at Meecebrook, as per our response Policies 1 and 2 above, there are concerns regarding the scale of Meecebrook which can be realistically delivered before 2040.

The plan's proposed trajectory at Appendix 6 of the Plan identifies that Meecebrook is expected to start delivering circa 300 homes in 2030/31 and is then expected to consistently deliver 300 dwellings per annum (dpa) for the remainder of the plan period, delivering 3,000 new homes by 2040.

This is a significant amount, particularly for an authority which has not delivered a site of this scale recently (as acknowledged in the Lead-in Times and Build Rate Assumptions Topic Paper (Preferred Options Stage)). There are two key concerns regarding the assumed trajectory for Meecebrook:

- Ambiguity on infrastructure delivery and triggers; and,
- Unrealistic delivery timescales and assumptions.

Policy 7 establishes that development can only commence once funding and delivery mechanisms have been identified to deliver several large pieces of infrastructure to serve the new community, including the railway station, schools, utilities and highways infrastructure.

No detailed evidence has been advanced to set out what sources of funding will be considered, or that the necessary strategic outline business case for the railway station is being drafted. It can take a significant amount of time for a station to be operational from the initial business case stage.

The Infrastructure Delivery Plan (IDP, October 2022) refers to funding and delivery, noting potential sources as Section 106 contributions, Community Infrastructure Levy, grant funding from central government and other bodies, and/or private funds from businesses and service providers, but this level of detail is considered to be too generic to provide sufficient confidence the infrastructure, including the railway station, is deliverable from these sources.

There is also no clear approach in terms of triggers for when infrastructure should be operational against the number of homes completed.

Both of these matters could significantly impact the delivery trajectory for Meecebrook, but no evidence has been provided.

It is welcomed that the Council is thinking now about lead in times for potential development of Meecebrook's scale in preparing the Lead-in Times and Built Rate Assumptions Topic Paper (Preferred Options Stage), including reflecting on local evidence from neighbouring authorities and Lichfields' Start to Finish paper¹ which provides national evidence.

The Plan however does not reflect the Lead-in Times and Built Rate Assumptions Topic Paper, no justification is provided to demonstrate that Meecebrook could deliver 300 dpa despite the Start to Finish report indicating 160 dpa was more reasonable. Furthermore, the only neighbouring authority to provide evidence for sites of 501 homes or more, Lichfield District Council, indicated it was reasonable to assume a ceiling of 150dpa on sites of that scale, half the delivery rate assumed by the Plan.

With the expectation set out in the Local Development Scheme that the Plan will be adopted by 2024, applying the lead in times identified in the Lichfields report illustrates that Meecebrook will not deliver a single new home until 2032 at the earliest (applying the average time for validation to delivery of 8.4 years from adoption of the plan), so one year later than the Plan's trajectory suggests.

In terms of completion, applying the average delivery rate advocated by the Lichfields report of around 160 dpa, full delivery of the housing on site would be in circa year 2050 (based on the amount currently proposed for the plan period), 10 years beyond the end of the plan period, with less than 50% (1,280 dwellings) being delivered within the plan period. Given there is currently no planning application for development of the new settlement, this is considered to be a reasonable baseline for considering the potential rate of delivery of the site and contribution to housing supply.

As a result, **an additional 1,720 homes will need to be found from other sites**. Should delivery of homes at Meecebrook be delayed, this would further risk supply across the Plan as a whole, given it contributes such a large proportion of the identified supply.

Policy 9 North of Stafford

Vistry welcomes this policy as it recognises the benefits of delivering new homes to the north of Stafford, which is a sustainable location for growth.

As presented with these representations, Vistry's land at Marston Farm provides the opportunity for additional land to come forward for development in the immediate vicinity of this allocation which would form a natural extension of the adopted allocation at Beaconside. Outline planning permission (Ref: 16/25450/OUT) was granted in May 2022 for the delivery of up to 2,000 dwellings at Beaconside together with a wide range a services and facilities including a primary school, health centre and two new local centres. This strategic site will clearly deliver a wide range of benefits both for the new residents of that development, as well as the wider area. Vistry's site can provide additionality to sustain the viability of these facilities and services.

Comments on technical policies

Policy 4: Climate change development requirements

The Policy sets out requirements for the construction and operation of buildings to ensure that they incorporate sustainable design and ultimately have a minimal impact on climate change. Requirements for residential development to achieve net zero operational energy or comply with the Passivhaus

¹ <https://lichfields.uk/content/insights/start-to-finish>

Standard accreditation is considered to be significantly onerous, requiring substantial enhancements to construction techniques and thereby incurring high costs. This would be in addition to those requirements associated with the Future Homes Standard (FHS) requirements, anticipated to come into effect in 2025, and beyond what is required in the context of Building Regulations. These are considered to be more achievable standards for residential development, whilst the design requirements set out in the policy would have a substantial impact upon costs both at the design and construction stages of development and therefore, scheme viability (no viability evidence has been provided for this plan as yet).

Policy 24 Homes for life

Vistry support the Councils commitment to providing accessible homes that meet Nationally Described Space Standard (NDSS) (policy 24 Homes for Life). Vistry’s 2025 house type range will be NDSS compliant and house types can be easily adapted to meet the M4(2) and M4(3) Building Regulations.

Summary

Vistry welcomes the opportunity to engage with the emerging Stafford Local Plan.

In order for Stafford to meet its housing need, it will be necessary to accommodate more to small-medium sites in sustainable locations to reduce reliance on the delivery from Meecebrook Garden Community, such as Vistry’s site at Marston Farm, Stafford (which is assessed as being potentially developable by the 2022 SHELAA).

The site is within sustainable location and can deliver significant benefits for existing and new residents, forming a natural extension of the land north of Beaconside and other surrounding approved developments.

We trust that the information provided with these representations will be considered and would welcome the opportunity to meet with officers to discuss the site further.

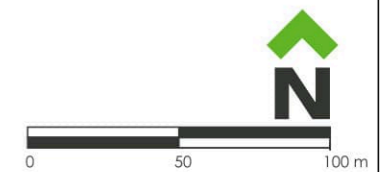
Yours sincerely



Jessica Herritty
Associate Director



Appendix 1



- Site Boundary: Aprx. 22.40ha
- CIRCULATION & DEVELOPMENT**
 - Primary vehicular/pedestrian/cycle access point
 - Potential developable area: Up to 450 dwellings
 - Tree lined spine street and verges
 - Indicative internal street layout
 - Recreational routes
 - Pedestrian/cycle links
 - Raised shared surface/ pedestrian priority areas
- GREEN INFRASTRUCTURE & RECREATION**
 - Existing vegetation
 - Proposed green infrastructure including retained wildlife corridors containing new landscaping and habitat creation
 - Proposed new structural/woodland/thicket planting
 - Community orchards
 - Children's play area
 - Sustainable Drainage Systems (SuDS) basins
 - De-culverted watercourse
 - Wildlife Areas (Ecological Enhancements/BNG)
 - Wildlife ponds
 - 'Village Green'
- CONTEXT**
 - Existing Public Rights of Way (#RoW - Footpaths)
 - Surrounding Planning Applications North of Stafford Strategic Development

SUBJECT TO FURTHER ADVICE & TECHNICAL INPUTS

Rev	Date	By	Description
B	07.12.22	JC	Reps Submission version
A	04.08.22	JC	Amended with drainage inputs

CSA
environmental

Project	Land at Marston Lane STAFFORD		
Title	Concept Masterplan		
Client	Vistry Group		
Scale	1:2500 @ A2	Drawn	JC
Date	July 2022	Checked	RR
Drawing No.	CSA/4261/109	Rev	B

Appendix 2

TECHNICAL NOTE

Job Name: Marston Farm, Staffordshire
Job No: 332210750
Note No: TN001
Date: August 2022
Prepared By: [REDACTED]
Subject: Flood Risk and Drainage Summary

1. Introduction

1.1 Vistry Homes Ltd are seeking to promote their site at Marston Farm, Stafford in the new Stafford Borough Local Plan. This Technical Note has been prepared by Stantec UK Ltd to support this process and identify the opportunities and constraints relating to flood risk for the site.

1.2 The Technical Note sets out the following:

- Planning Policy context
- Consultation
- Flood Risk, including:
 - Fluvial/Tidal
 - Surface Water
 - Groundwater
 - Artificial Sources
- Existing Surface Water Drainage
- Proposed Surface Water Drainage
- Summary
- Next steps and recommendations

DOCUMENT ISSUE RECORD

Technical Note No	Rev	Date	Prepared	Checked	Reviewed (Discipline Lead)	Approved (Project Director)
332110598/1c/TN001	-	31-08-22	RL	SK	SK	

This report has been prepared by Stantec UK Limited ('Stantec') on behalf of its client to whom this report is addressed ('Client') in connection with the project described in this report and takes into account the Client's particular instructions and requirements. This report was prepared in accordance with the professional services appointment under which Stantec was appointed by its Client. This report is not intended for and should not be relied on by any third party (i.e. parties other than the Client). Stantec accepts no duty or responsibility (including in negligence) to any party other than the Client and disclaims all liability of any nature whatsoever to any such party in respect of this report.

[REDACTED]

TECHNICAL NOTE

2. Planning Policy context

- 2.1. National Planning Policy Framework (NPPF) and Planning Policy Guidance (PPG) 'Flood Risk and Coastal Change' Table 2 confirms the 'Flood risk vulnerability classification' of a site, depending upon the proposed usage. This classification is subsequently applied to PPG Table 3 to determine whether:
- The proposed development is suitable for the flood zone in which it is located, and
 - Whether an Exception Test is required for the proposed development.
- 2.2. The existing site is classified as 'Less Vulnerable' development. Residential development is classified as 'More Vulnerable' and appropriate in Flood Zones 1 and 2. Residential development is not permitted within Flood Zone 3b but is permitted within Flood Zone 3a, subject to the Exception Test.
- 2.3. The NPPF follows a sequential risk-based approach in determining the suitability of land for development in flood risk areas, with the intention of steering all new development to the lowest flood risk areas.
- 2.4. The Sequential Test is a planning exercise to consider whether there are 'reasonably available' alternative sites at lower probability of flooding that would be suitable for the proposed development.
- 2.5. Local planning policy for the area immediately south of the site, contained within 'The Plan for Stafford Borough 2011-2031' (adopted 19th June 2014), principally;

Policy Stafford 2 – North of Stafford, which states:

"Within the area North of Stafford identified on the Policies Map a sustainable, well designed mixed use development will be delivered by 2031. Any application for development on a part or the whole of the area should be consistent with a master plan for the whole Strategic Development Location. The master plan for the whole site should be produced by all developers involved in the development of the site and agreed by the Council prior to applications being submitted. Any application for a component of the whole site must be accompanied by a specific master plan which shows the relationship of the application area to the wider Strategic Development Location. The design of the application should not prejudice the delivery or design of the wider Strategic Development Location.

Development must deliver the following key requirements:

[...]

Environment

- iv. *A comprehensive drainage scheme will be delivered to enable development of the Strategic Development Location which will include measures to alleviate flooding downstream on the Marston Brook and Sandyford Brook;*

[...]

- v. *Existing hedgerows and tree lines to be retained and enhanced to support the provision of a network of green infrastructure including wetlands and water corridors, play areas, green corridors allowing wildlife movement and access to open space;*

Infrastructure

[...]

- xv. *Flood management scheme and less than greenfield surface water run-off to Sandyford Brook and Marston Brook through open water storage solutions, maximising opportunities for multi-functional open space provision;*

TECHNICAL NOTE

[...]

Developer contributions will be required to provide the strategic infrastructure needed to achieve a comprehensive sustainable development at this Strategic Development Location.”

3. Consultation

- 3.1. The Environment Agency (EA), Staffordshire County Council (as the LLFA) and Severn Trent Water (STW) were all consulted in order to highlight any potential technical risks and identify key constraints on site.
- 3.2. Staffordshire County Council (SCC), in their role as LLFA, provided flood risk and drainage advice via a pre-application data request, dated 9th February 2021. The response is included in full in **Appendix B** but a brief summary is provided below:
 - The site is located in Flood Zone 1;
 - The majority of the site lies within an area with ‘very low’ risk from surface water flooding;
 - There is 1 record of historic flooding within 20m of the site (linked to highway maintenance along Marston Lane); and,
 - Their records show there is a watercourse running through the site.
- 3.3. Preliminary flood risk and drainage data was requested from the EA and a response was received on 27th April 2021. The response and data is reproduced in full in **Appendix C**.
- 3.4. STW confirmed (via email dated 17th February 2021) that they have apparatus that could be affected within the site boundary, however utility plans (included in **Appendix D**) show no sewers on or immediately adjacent to the site boundary.

4. Flood Risk

Fluvial and tidal flooding

- 4.1. The majority of the site falls within the catchment of Marston Brook (a tributary of the River Sow), which flows from north to south approximately 100m south of the site and continues south into Stafford (**Figure 1 and Appendix A**).

TECHNICAL NOTE

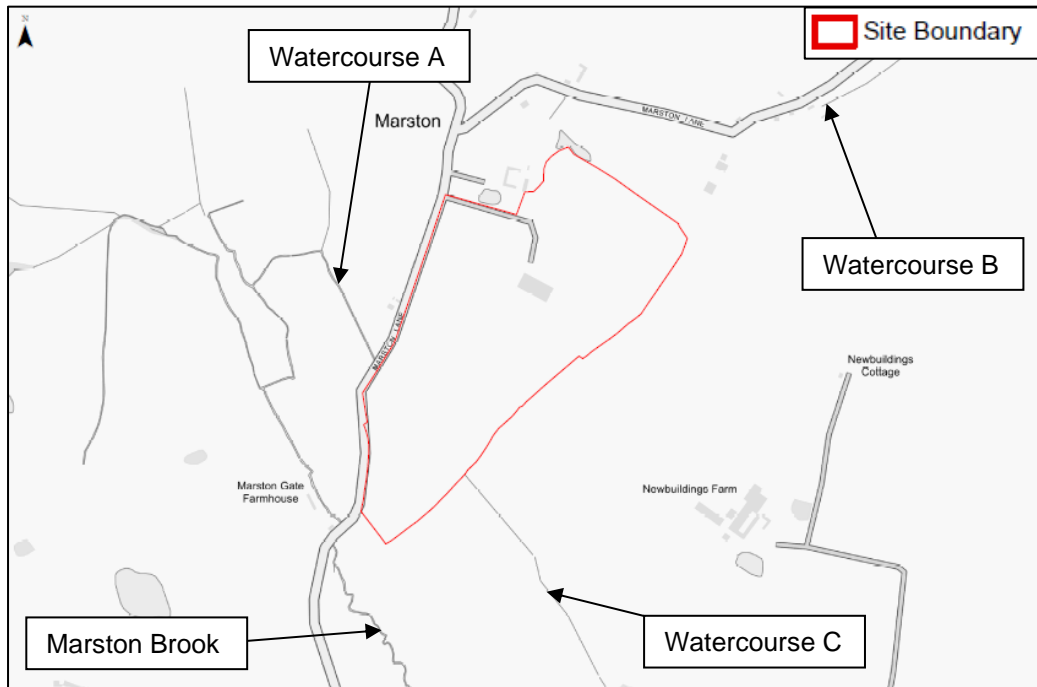


Figure 1: Site Location and Watercourses

4.2. The northern part of the site is split into two catchments with the northern part of the site lying within (and draining northwards into) the catchment of the River Trent, via a small ordinary watercourse (Watercourse B) which rises from Brook Farm (approximately 250m northeast of the site) as shown in **Figures 1 & 2 (Appendix A)**.

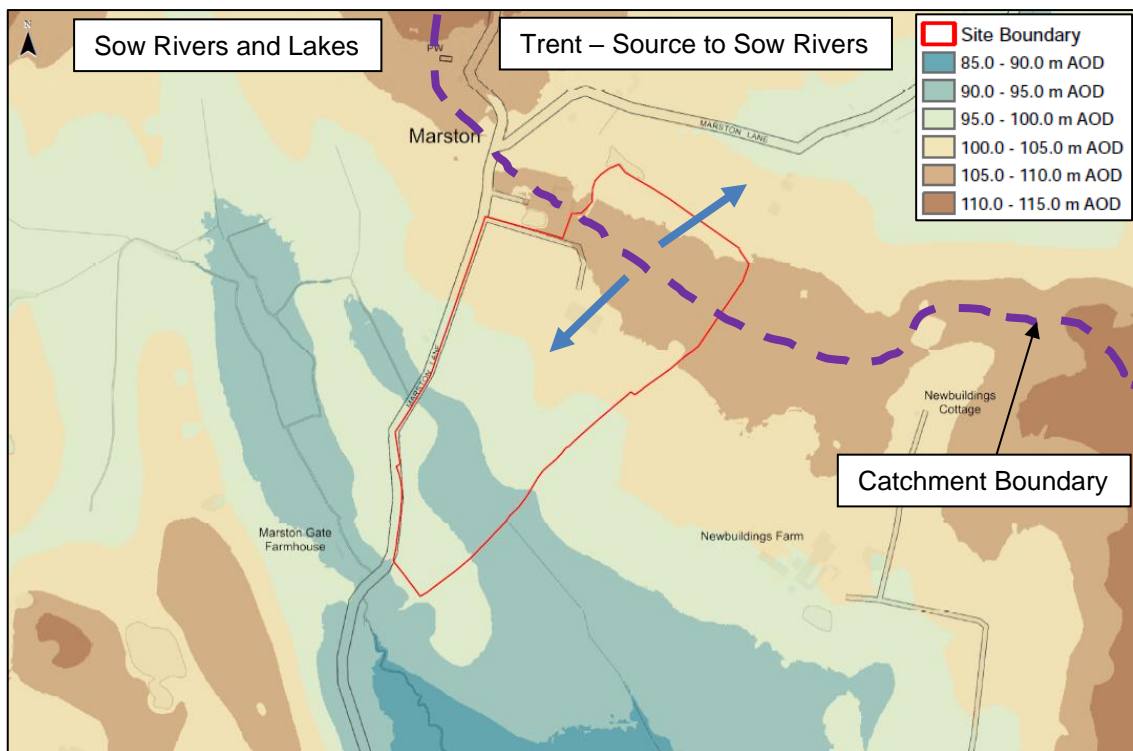


Figure 2: Watercourse catchments and topography

TECHNICAL NOTE

- 4.3. OS mapping indicates that there is an open watercourse (Watercourse A – **Figure 1**) which crosses the southern part of the site. This is confirmed by SCC in their response, dated 9th February 2021 (**Appendix B**), which states; “*our records show that there is a watercourse running through your site. We would expect flood risk related to this watercourse to be investigated as part of any FRA.*”
- 4.4. However, the map supplied by SCC in their response (**Appendix B**) does not show any ordinary watercourses running through the site – see **Figure 3** below.
- 4.5. A topographic survey was completed on site by Warner Surveys in July 2021 in addition to a site walkover and found no open watercourse crossing through the site. A copy of the topographic survey is included in **Appendix E**.
- 4.6. Watercourse A, a tributary of Marston Brook, does not flow into the site but flows northwest and then west into Marston Brook itself. A small section of channel immediately north of the site is shown at low-lying elevations up to the northern boundary of the site (with Marston Lane). The channel was dry when it was surveyed in July 2021.
- 4.7. A culvert immediately below Marston Lane (north of the site) was surveyed and photographed (see **Figure 4** below) but no outlet was surveyed within the site itself, either immediately south of Marston Lane or anywhere else within the site.

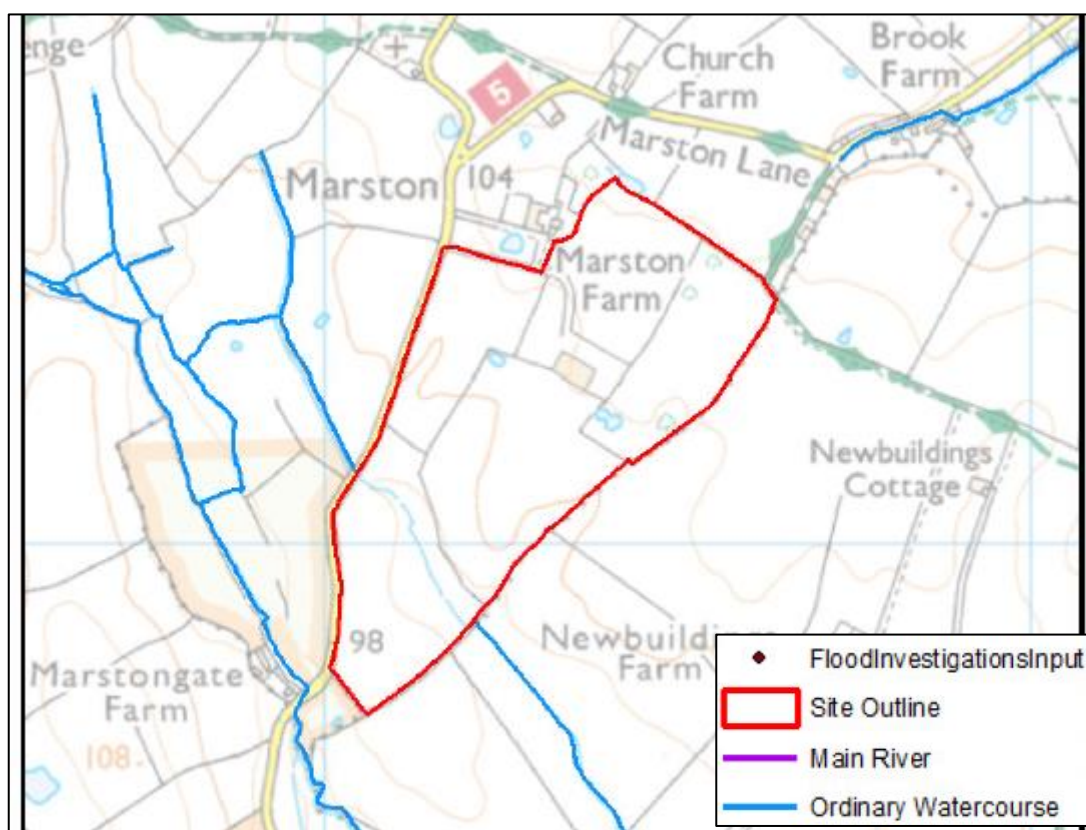


Figure 3: SCC LLFA response – map of ordinary watercourses on and adjacent to the site

TECHNICAL NOTE



Figure 4: Culvert immediately upstream of Marston Lane

- 4.8. A third ordinary watercourse (Watercourse C) is located immediately southeast of the site, which is also a tributary to Marston Brook.
- 4.9. A review of the EA online Flood Map for Planning shows the whole site is located within Flood Zone 1 'Low Probability' having less than a 1 in 1000 (0.1%) Annual Probability of river or sea flooding. A copy of the EA Flood Map for Planning is provided in **Figure 5**.
- 4.10. There are no recorded formal flood defences located within or adjacent to the site.

Surface Water Flooding

- 4.11. The EA's Surface Water Flood Map shows the majority of the site is at a 'very low' risk.
- 4.12. There is a 'low' risk flow path associated with the existing topography on site, flowing south-westwards and then south-eastwards towards Watercourse C, with the watercourse itself shown as a 'low', 'medium' and 'high' risk flow path.
- 4.13. A number of isolated 'high' risk areas are shown along the northern boundary and eastern boundary, associated with topographic low points.
- 4.14. There is also a 'low', 'medium' and 'high' risk flow path associated with Watercourse A, immediately northwest of Marston Lane. The risk here is associated with the dry ditch and culvert shown in **Figure 4**. Marston Lane itself is raised above ground levels immediately to the north and south, so water essentially backs up and ponds behind the culvert, hence the risk flow path does not enter the site. A copy of the EA surface water flood risk map is provided in **Figure 5** below.
- 4.15. The EA's online mapping indicates that the majority of predicted 'low', 'medium' and 'high' risk flood depths north of Marston Lane are generally less than 600mm along risk areas. Depths do vary between 600 to 900mm at topographical low points, such as the existing ditch and culvert (immediately north of Marston Lane).
- 4.16. It should be noted that the EA's flooding from surface water mapping does not make any allowance for existing sewer networks or road drainage and therefore provides a 'worst case' reduction or risk from this source.

TECHNICAL NOTE

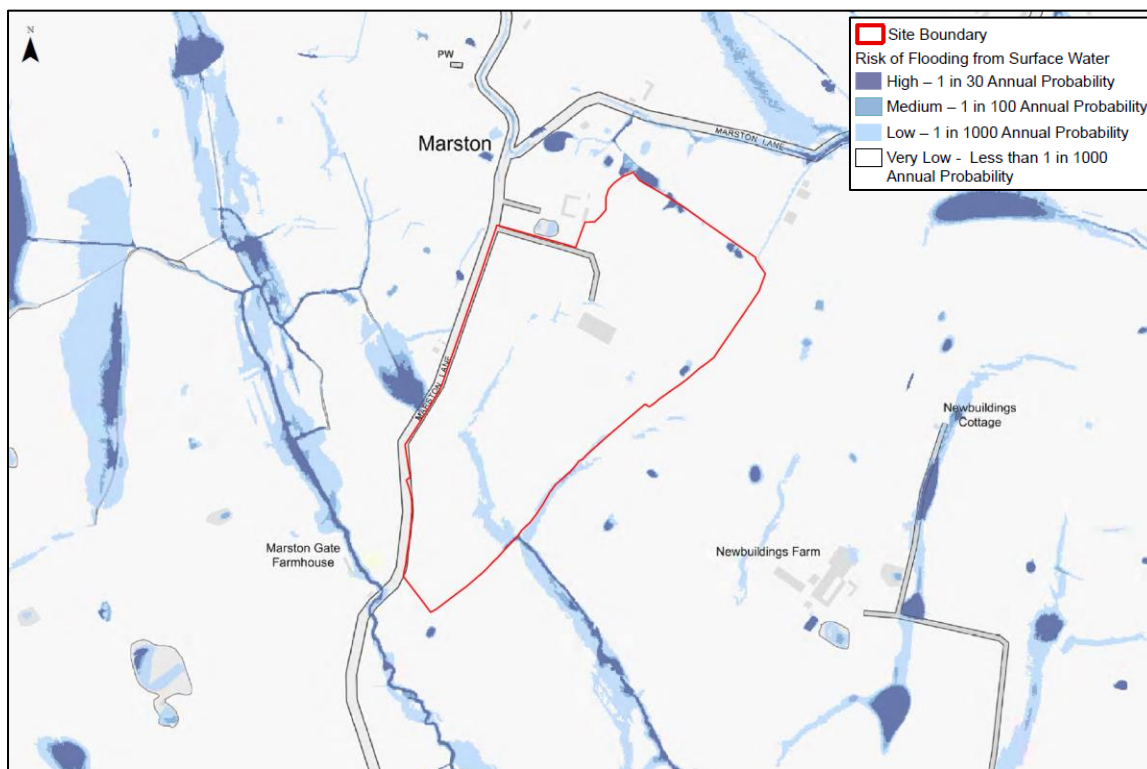


Figure 5: EA online Surface Water Flood Mapping (April 2021)

Groundwater Flooding

- 4.17. From a review of the 1:50 000 scale geology map from the British Geological Survey (BGS) online digital viewer, the bedrock beneath the site comprises the Mercia Mudstone Group (Mudstone And Halite-stone). Superficial deposits of Peat are located in a linear band across the south-western part of the site only. There are no other superficial deposits on site.
- 4.18. The bedrock on site is designated by the EA as a 'Secondary B' aquifer. The superficial peat deposits are 'Unproductive'.
- 4.19. Stafford Borough Council's Strategic Flood Risk Assessment (SFRA) dated August 2019, includes Geo PDF Flood Risk Mapping (Index Grid C3) in Appendix A. The Geo PDF includes Areas Susceptible to Groundwater flooding (AStGWf) mapping, which is defined as:
- "a strategic map showing where groundwater flooding could occur on a 1km square grid. It shows the proportion of each 1km grid square where geological and hydrogeological conditions show that groundwater flooding could occur."*
- 4.20. The AStGWf map shows the majority of the site has <25% and the far southern part of the site has >= 25% <50%, as shown in **Figure 6**.
- 4.21. Correspondence with SCC (**Appendix B**) and the EA (**Appendix C**) confirms there have been no incidences of groundwater flooding recorded on site.

TECHNICAL NOTE

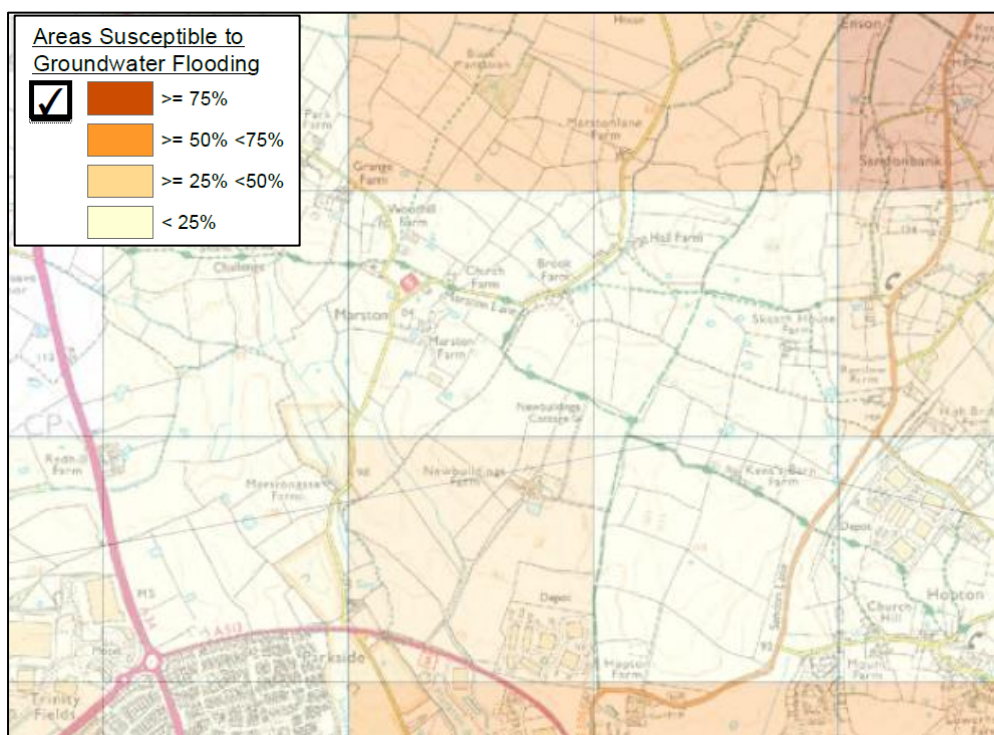


Figure 6: SBC SFRA Appendix A, Groundwater Flood Risk mapping

Artificial Sources

- 4.22. The EA provides maps showing the risk of flooding in the event of a breach from reservoirs, based only on large reservoirs (over 25,000 cubic metres of water). This mapping shows that the site is not considered to be at risk in the event of a reservoir breach.
- 4.23. SBC's SFRA also includes a 'Historic Flooding' Map in Geo PDF Flood Risk Mapping (Index Grid C3) in Appendix A. The maps show that there have been no recorded incidents of historic flooding (from any sources) on site.

5. Existing Surface Water Drainage

- 5.1. The majority of the existing Site consists of 'greenfield' land with an agricultural building (and access track) located in the northern/central part of the site.
- 5.2. The UK Soil Observatory (UKSO) online 'Soilscapes for England and Wales' viewer indicates that the Site is located on a combination of:
- 'Slightly acid loamy and clayey soils with impeded drainage', to the northeast; and,
 - 'Loamy and clayey floodplain soils with naturally high groundwater' to the southwest.
- 5.3. The ground and soil conditions indicate that there is likely to be limited potential for infiltration. Runoff from rainfall which does not infiltrate is likely to runoff into Watercourse C and ultimately the Marston Brook due to the local topography sloping down towards the watercourse. Runoff from the northern part of the site would fall north-eastwards towards Watercourse B.

TECHNICAL NOTE

6. Proposed Surface Water Drainage

- 6.1. Greenfield runoff rates for the site have been calculated using the online HR Wallingford 'Greenfield runoff rate estimation for sites' tool. The calculated greenfield runoff rates are as follows:
- QBAR = 5.05 l/s/ha;
 - Q1 = 4.19 l/s/ha;
 - Q30 = 10.09 l/s/ha;
 - Q100 = 12.97 l/s/ha
- 6.2. Post-development surface water attenuation storage requirements have been determined based on the preliminary development proposals (drawing reference 'Concept Masterplan' CSA/4261/109 dated July 2022) and existing ground levels.
- 6.3. The proposed development areas have been split into 2 sub-catchments within the site (based on existing ground levels) and assumed that each catchment will discharge at the QBAR greenfield rate back to the ordinary watercourse which bounds the southeast boundary (Watercourse C). Catchment 1 has been split into 1A and 1B, with Catchment 1B currently draining northwards. At this stage it has been assumed that Catchment 1B will drain southwards in combination with Catchment 1A.
- 6.4. **Figure 7** below shows each sub-catchment and the estimated direction of runoff based on existing ground levels. The total impermeable area calculated for sub-catchment has been based on the concept masterplan.

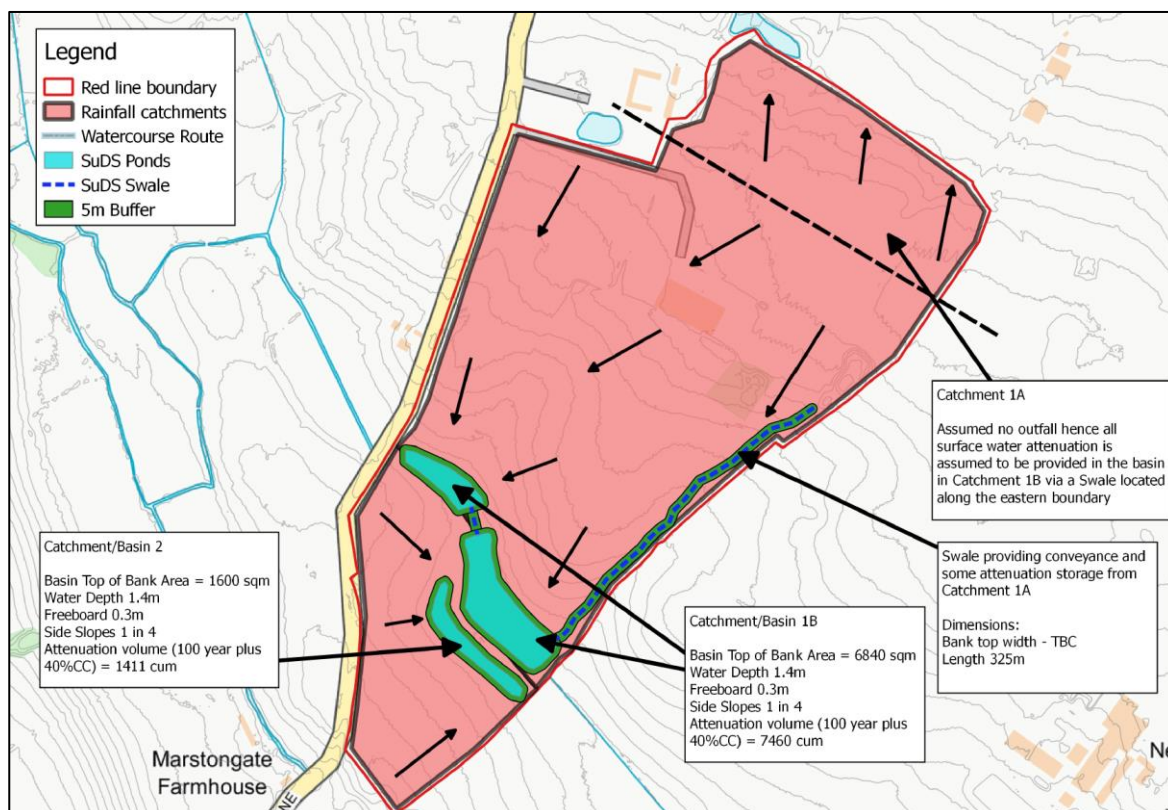


Figure 7: Preliminary SuDS layout and rainfall catchments

- 6.5. The post-development runoff attenuation volumes calculations have been based on the following assumptions:

TECHNICAL NOTE

- A typical residential development would likely have impermeable areas of 65% impermeable across the site, and an urban creep of 10% applied; and
- A typical commercial development would likely have impermeable areas of 80%.

6.6. Surface water volumes have been calculated for the 1 in 100 (1%) Annual Probability 40% climate change event. Proposed post-development runoff attenuation storage for the site has been calculated (based on existing ground levels) using the 'Quick Storage Estimates' tool within MicroDrainage, taking into account the assumed impermeable area (including urban creep) and a discharge rate based on QBAR at 5.05 l/s/ha. Rainfall data was used from the Flood Studies Report (FSR) method in place of FEH rainfall data at this stage.

Catchment ID	Total Catchment Area (ha)	Total Impermeable Area (ha)	Discharge rate at QBAR rate (l/s)	1 in 100 year (1%) plus 40% climate change event (m ³)
1 (1A & 1B)	12.430	8.15	32.9	7,460
2	2.515	1.63	8.3	1,411

- 6.7. It should be noted that these estimates are indicative and do not take into account any potential storage within the wider drainage network. It is likely that the volumes will be reduced through the preparation of a more detailed drainage strategy, the use of FEH rainfall data (in place of FSR) and the incorporation of additional SuDS measures.
- 6.8. The final storage type, location and volume, and the potential for use of further SuDS components, will be confirmed as part of the detailed master planning and outline drainage design.
- 6.9. It is a requirement of the NPPF that SuDS are used in all major development. The LLFA also advocate the use of appropriate SuDS in new development. CIRIA report C753 'The SuDS Manual' outlines the various types of SuDS, their benefits and limitations, and design considerations associated with each. Not all SuDS components/methods are feasible or appropriate for all developments; factors such as available space, ground conditions, and site gradient will influence the feasibility of different methods for a particular development.
- 6.10. All proposed attenuation features should be located within the downslope south-eastern area of the proposed development, surrounding the existing ordinary watercourse (Watercourse C) but outside of its fluvial floodplain, subject to post-development earthworks and final ground levels. Due to the potential flood risk from the culverted watercourse beneath Marston Lane, it is strongly advised that SuDS features are offset to allow for potential de-culverting of the existing culvert/pipe, or for maintenance and access to the existing culvert/pipe pending further investigation of its exact location through the site.
- 6.11. The LLFA will require open SuDS features (in line with CIRIA C753 SuDS Manual, 2015) such as attenuation basins, ponds or wetlands, so they create enhanced bio-diversity opportunities, ecological betterment, community engagement and water quality treatment.
- 6.12. Consideration should be given to the land take requirements for SuDS features, which may increase/decrease depending on side slopes, water depth, review of detailed topography in the area and the final form/shape which may be more accommodating of existing topography.

TECHNICAL NOTE

7. Summary

- 7.1. Our high-level assessment has been based on data available at the time of the study, to help inform future development on site. The aim of this TN is to review flood risk from all sources and to consider any constraints.
- 7.2. This TN concludes that:
- The EA online Flood Map for Planning shows the whole site is located within Flood Zone 1 'Low Probability' having less than a 1 in 1000 (0.1%) Annual Probability of river or sea flooding.
 - The EA's Surface Water Flood Map shows the majority of the site is at a 'very low' risk. A number of isolated 'high' risk areas are shown along the northern boundary and eastern boundary, associated with topographic low points. There is also a 'low', 'medium' and 'high' risk flow path associated with Watercourse A and the dry ditch and culvert immediately northwest of Marston Lane. Marston Lane itself is raised above ground levels immediately to the north and south, hence the risk flow path does not enter the site.
 - The AStGWf mapping within SBC's SFRA shows the majority of the site has <25% and the far southern part of the site has >= 25% <50%
 - SBC's SFRA Geo PDF Flood Risk Mapping (Index Grid C3) in Appendix A indicates there have been no recorded incidents of historic flooding (from any sources) on site.
 - The site is not within an area at risk of a breach from reservoirs.
- 7.3. Therefore, the site is considered to be at 'low' or 'negligible' risk from all assessed sources of flooding. The topographical low spots within the site may be at risk of surface water flooding but this will not result in a risk to the proposed scheme.
- 7.4. The proposed development proposals are located in Flood Zone 1 where all development types are permitted and therefore in agreement with the NPPF.
- 7.5. No specific mitigation measures are considered necessary. It is recommended that where practicable, finished floor levels are raised a minimum of 150mm above existing surrounding ground levels to reduce any residual risk associated with surface water flooding.

TECHNICAL NOTE

Risk Review		
Topic	Delivery Risk	Comments
Fluvial		<p>The EA online Flood Map for Planning shows the whole site is located within Flood Zone 1 'Low Probability' having less than a 1 in 1000 (0.1%) Annual Probability of river or sea flooding.</p> <p>OS mapping indicates an open watercourse is located on site but there is no evidence of this following completion of a walkover survey and topographic survey.</p>
Surface Water/ Overland Flows		<p>The EA's Surface Water Flood Map shows the majority of the site is at a 'very low' risk. A number of isolated 'high' risk areas are shown along the northern boundary and eastern boundary, associated with topographic low points. There is also a 'low', 'medium' and 'high' risk flow path associated with Watercourse A and the dry ditch and culvert immediately northwest of Marston Lane.</p> <p>Marston Lane itself is raised above ground levels immediately to the north and south, so water effectively backs up and ponds behind the culvert, hence the risk flow path does not enter the site. Post-development drainage would mitigate risk.</p>
Groundwater		The AStGWf mapping within SBC's SFRA shows the majority of the site has <25% and the far southern part of the site has >= 25% <50%.
Artificial		The whole site is not within an area at risk in the event of a reservoir breach.

Key:		Low/Negligible Risk – No noticeable impact to site and not considered to be a constraint to development
		Medium Risk – Issue requires consideration but not a significant constraint to development
		High Risk – Major constraint to development requiring active consideration in mitigation proposals

8. Next steps and recommendations

- 8.1. The NPPF requires a Flood Risk Assessment (FRA) to be provided for development proposals greater than 1 hectare and for any development proposals located within Flood Zones 2 or 3. A FRA would be required for any planning application at the site to inform the local planning authority of the expected changes in flood risk and vulnerability that will result from any proposed development.
- 8.2. Priority is given in the NPPF to the use of SuDS to manage surface water runoff generated from impermeable areas of the site and to safely manage any residual risk; a FRA should therefore include an assessment of the surface water drainage strategy for the site, to ensure that any proposed future development of the site does not increase flood risk on-site or off-site.
- 8.3. A FRA for planning must include confirmation that the site passes the Sequential and Exception Tests and complies with the NPPF, PPG and local/national flood risk policy.
- 8.4. Further investigation of the culvert beneath Marston Lane would be required in order to determine the condition of the structure and the location of an outfall, which would comprise of:
 - CCTV drain survey and/or tracer survey. This would provide details on the structural condition of the culvert and also identify the outfall location which can be updated on the topographic survey.

TECHNICAL NOTE

- At this stage it is not possible to determine if a culverted watercourse is located on site, associated with the culvert beneath Marston Lane. The CCTV and tracer survey would help to determine the presence and partial extent of a culverted watercourse (if present), but it is likely that further investigation (which could include intrusive works) would be required to locate the full extent.
- Pending further investigation of the culvert and possible presence of a culverted watercourse beneath the site, it is recommended that the natural flow path and possible line of the culvert through the site is maintained as a blue/green corridor. This would provide mitigation in the event that flood waters back up behind the culvert and spill over Marston Lane into the site.

8.5. At present the only possibly outfall for surface water drainage would be the existing drainage ditch (and ultimately Watercourse C) present along the south-eastern boundary. Consent from SCC, as LLFA, will be required for new crossings or development (including SuDs outfalls) that may impact on minor and ordinary watercourses within and adjacent to the site. Land Drainage Consent (LDC) may be required for the ordinary watercourses immediately surrounding (and possibly on) the site. If the CCTV/tracer survey reveals the location of a watercourse on site, this would potentially facilitate additional surface water (SuDS) outfalls within the site boundary and therefore no additional permissions (e.g., landowner permission) would be required.

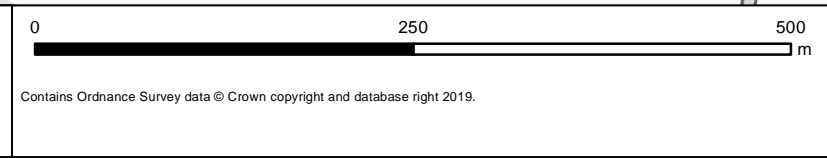
TECHNICAL NOTE

Appendix A – GIS Open Source Mapping



Client:
Bovis Homes Limited

MARSTON FARM, STAFFORD
Site Location



1:5,000 @ A3	Date: 16/04/2021
Drawn: IB	Checked: RL
Figure 001	Rev A

Site Boundary



PW

Marston

MARSTON LANE

MARSTON LANE

Newbuildings Cottage

Marston Gate Farmhouse

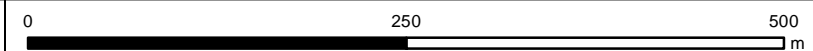
Newbuildings Farm



Client:

Bovis Homes Limited

MARSTON FARM, STAFFORD
Site Location (Aerial)



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Contains Ordnance Survey data (c) Crown copyright and database right 2019.

1:5,000 @ A3

Date: 16/04/2021

Drawn: IB

Checked: RL

Figure 002

Rev A

Site Boundary

- 85.0 - 90.0 m AOD
- 90.0 - 95.0 m AOD
- 95.0 - 100.0 m AOD
- 100.0 - 105.0 m AOD
- 105.0 - 110.0 m AOD
- 110.0 - 115.0 m AOD



Client:
Bovis Homes Limited

MARSTON FARM, STAFFORD
Topography

0 250 500 m

Contains Environment Agency information Environment Agency and/or database right
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1:5,000 @ A3	Date: 16/04/2021
Drawn: IB	Checked: RL
Figure 003	Rev A



- Site Boundary
- Main River
- Areas Benefiting from Flood Defences
- Flood Zone 3
- Flood Zone 2
- Flood Zone 1



Client:
Bovis Homes Limited

MARSTON FARM, STAFFORD
EA Flood Zone

0 250 500 m

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Flood Zones refer to the probability of river and/or sea flooding, ignoring the presence of defences

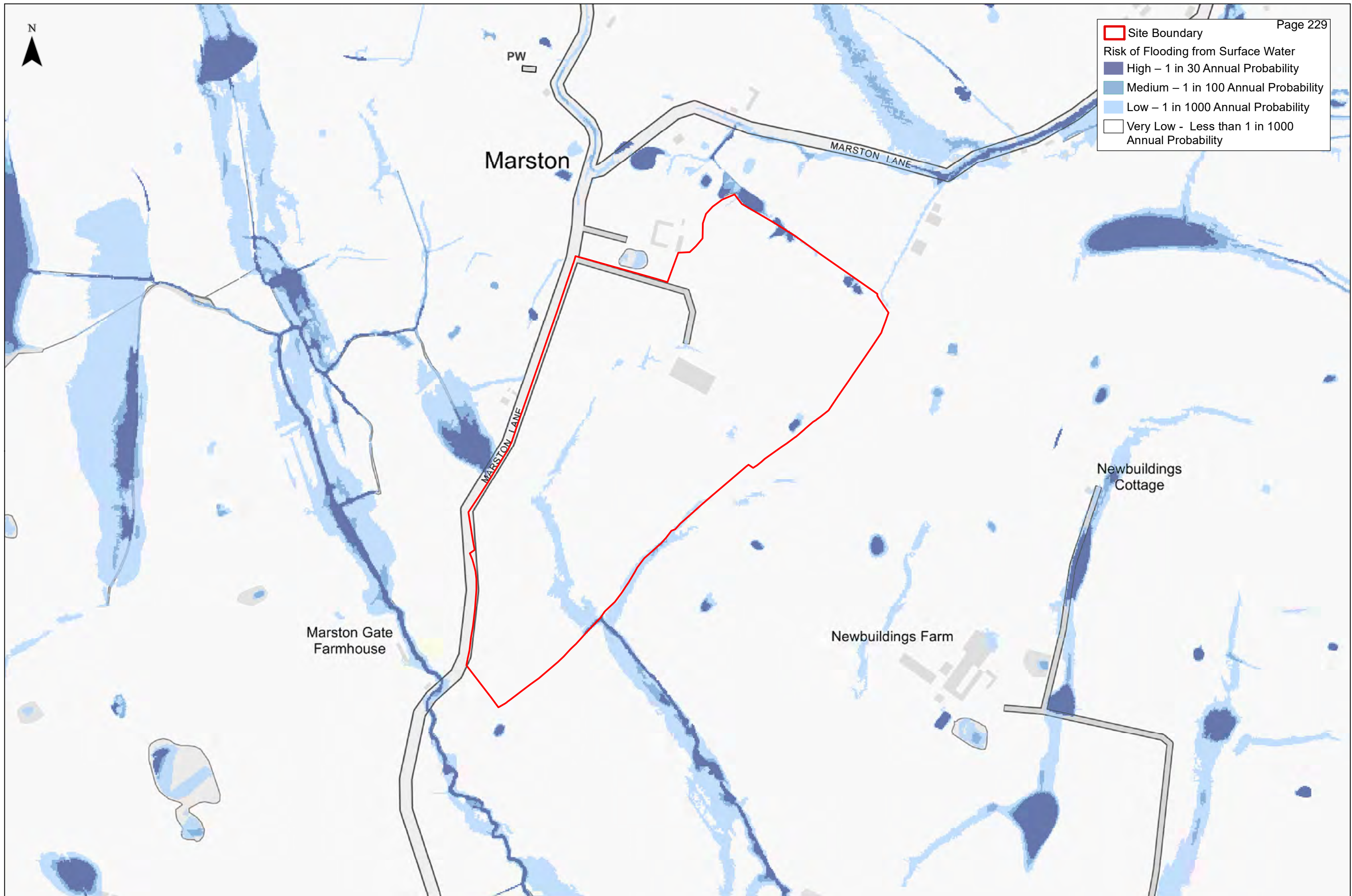
1:5,000 @ A3	Date: 16/04/2021
Drawn: IB	Checked: RL
Figure 004	Rev A



Site Boundary

Risk of Flooding from Surface Water

- High – 1 in 30 Annual Probability
- Medium – 1 in 100 Annual Probability
- Low – 1 in 1000 Annual Probability
- Very Low - Less than 1 in 1000 Annual Probability



Client:
Bovis Homes Limited

MARSTON FARM, STAFFORD
EA Surface Water Flood Risk

0 250 500 m

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Maps based on EA updated 'Flood Map for Surface Water' ('uFMSW') released in 2013 as the latest iteration of a national scale surface water modelling exercise

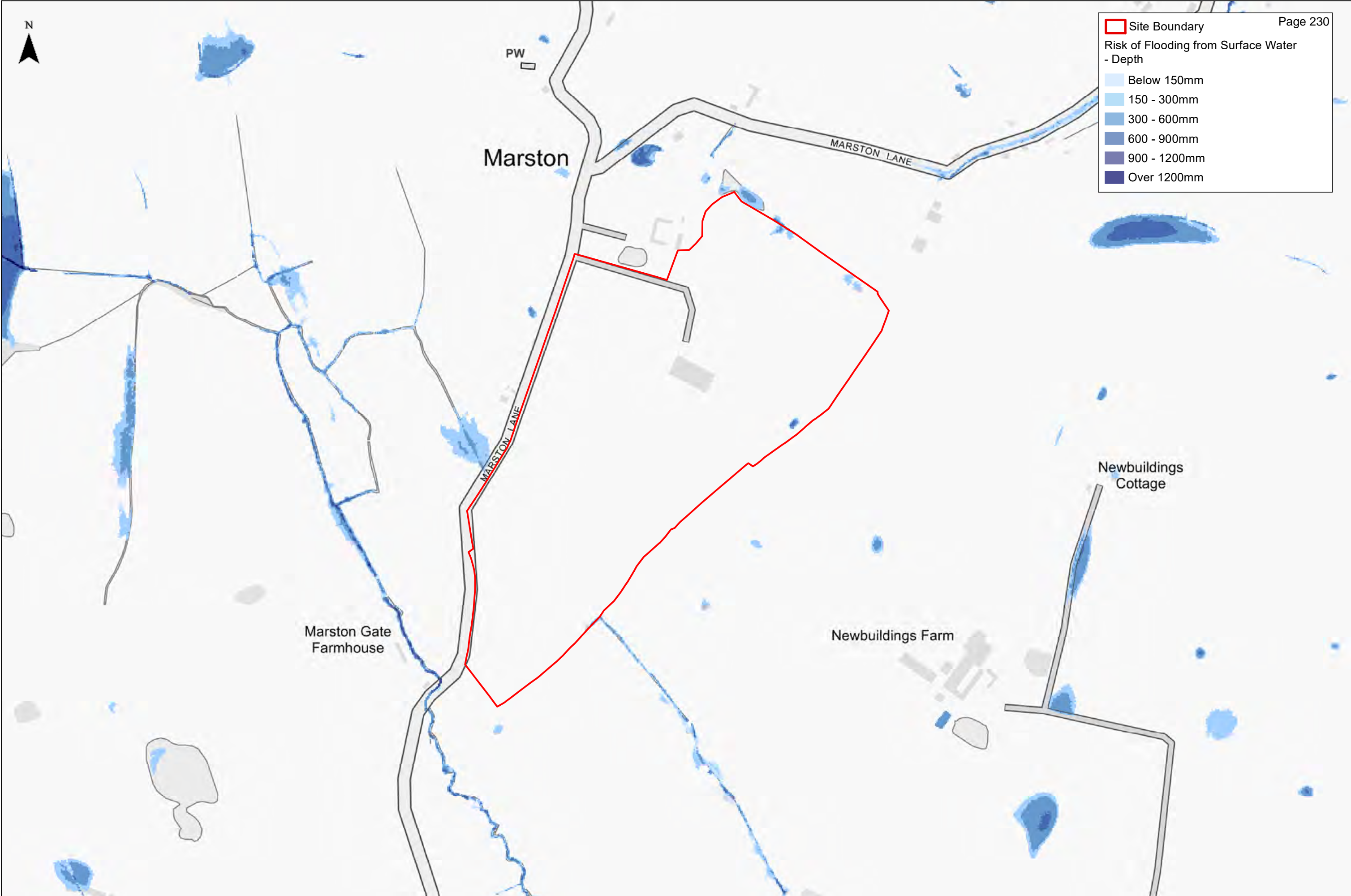
1:5,000 @ A3	Date: 16/04/2021
Drawn: IB	Checked: RL
Figure 005	Rev A



Site Boundary

Risk of Flooding from Surface Water - Depth

- Below 150mm
- 150 - 300mm
- 300 - 600mm
- 600 - 900mm
- 900 - 1200mm
- Over 1200mm



Client:
Bovis Homes Limited

MARSTON FARM, STAFFORD
EA Surface Water Flood Risk - Depth
3.3 Percent Chance

0 250 500 m

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Maps based on EA updated 'Flood Map for Surface Water' ('uFMSW') released in 2013 as the latest iteration of a national scale surface water modelling exercise

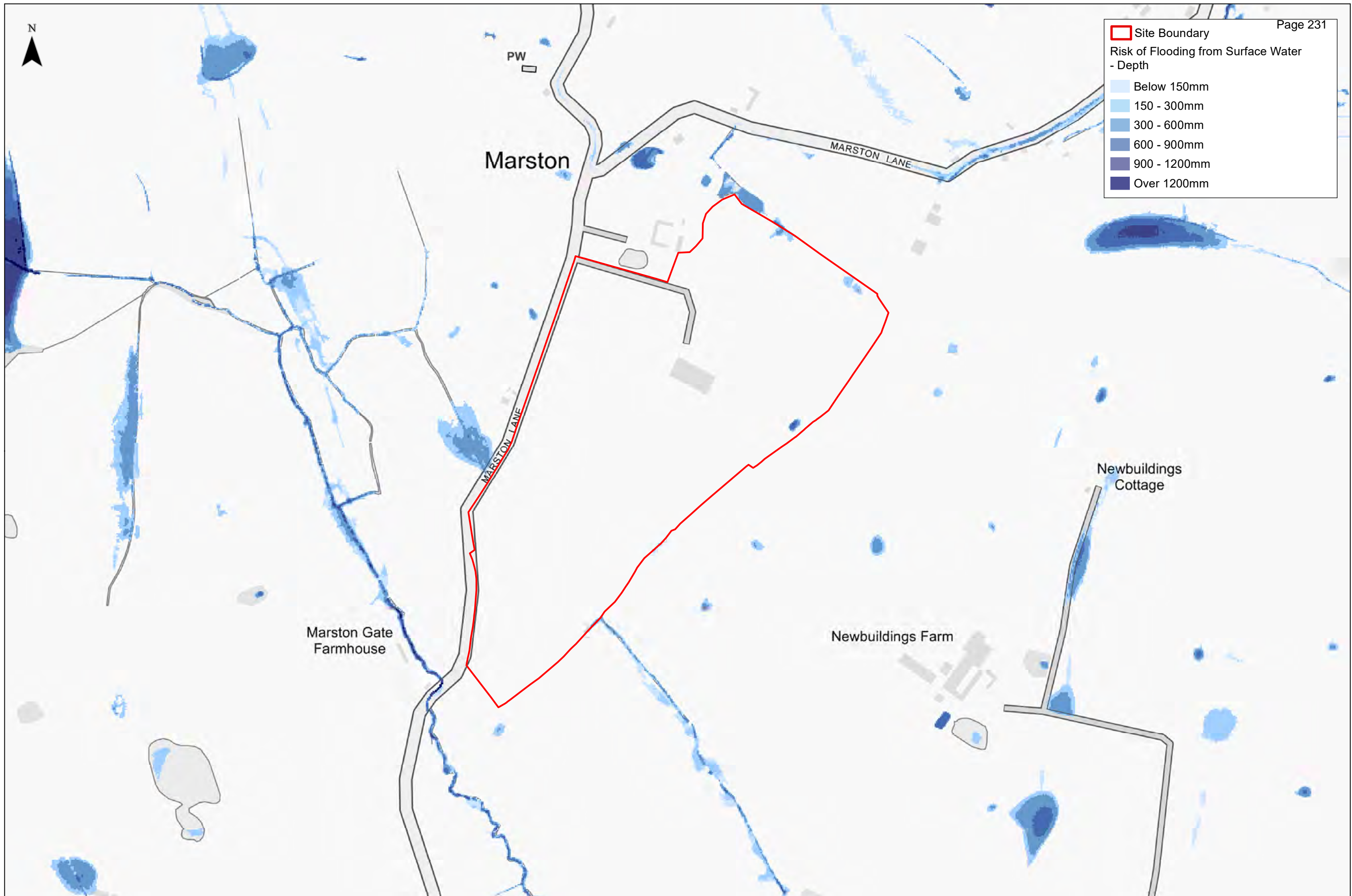
1:5,000 @ A3	Date: 16/04/2021
Drawn: IB	Checked: RL
Figure 005a	Rev A



Site Boundary

Risk of Flooding from Surface Water - Depth

- Below 150mm
- 150 - 300mm
- 300 - 600mm
- 600 - 900mm
- 900 - 1200mm
- Over 1200mm



Client:
Bovis Homes Limited

MARSTON FARM, STAFFORD
EA Surface Water Flood Risk - Depth
1.0 Percent Chance

0 250 500 m

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Maps based on EA updated 'Flood Map for Surface Water' ('uFMSW') released in 2013 as the latest iteration of a national scale surface water modelling exercise

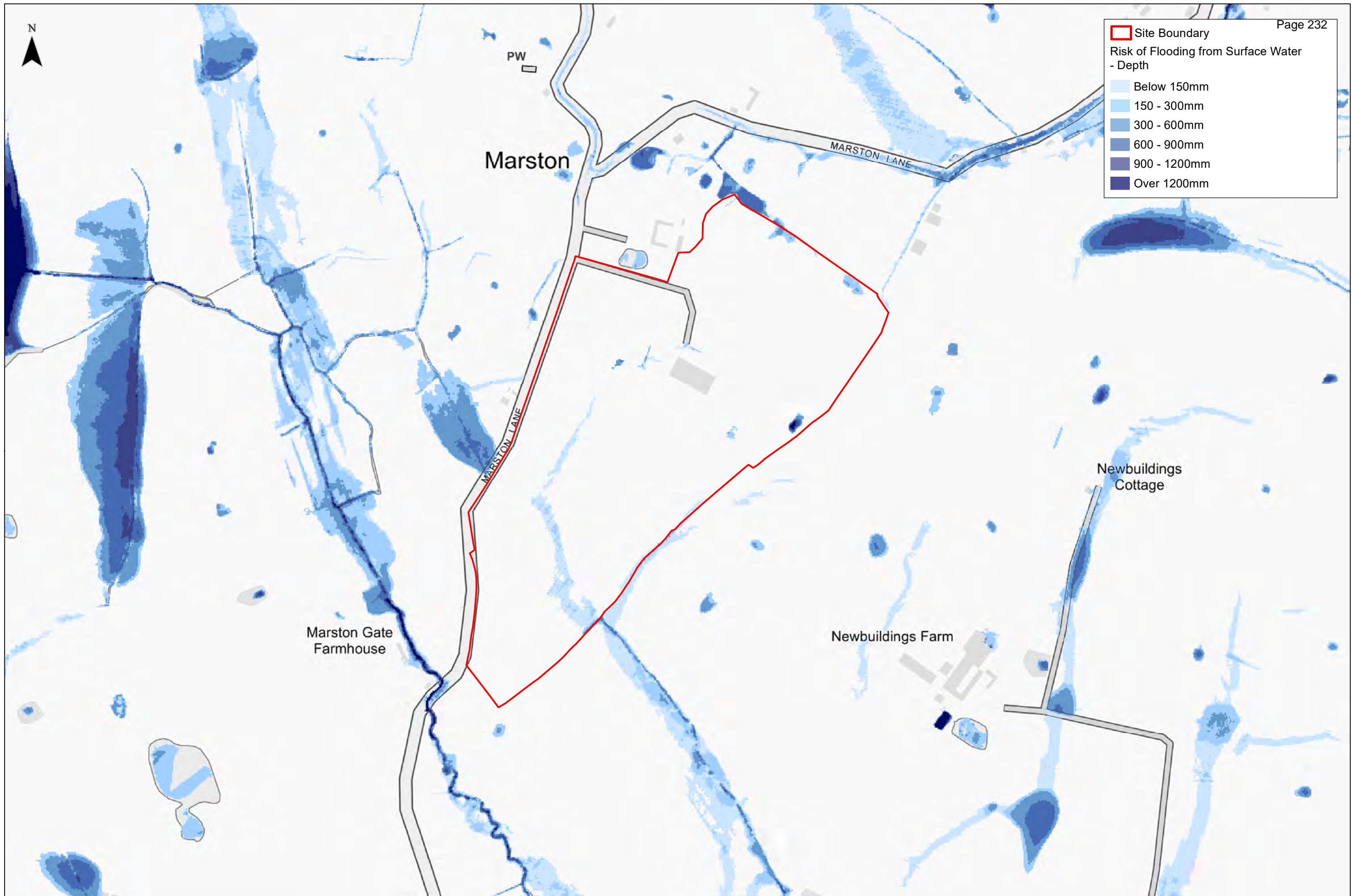
1:5,000 @ A3	Date: 16/04/2021
Drawn: IB	Checked: RL
Figure 005b	Rev A



Site Boundary

Risk of Flooding from Surface Water - Depth

- Below 150mm
- 150 - 300mm
- 300 - 600mm
- 600 - 900mm
- 900 - 1200mm
- Over 1200mm



Client:
Bovis Homes Limited






MARSTON FARM, STAFFORD
EA Surface Water Flood Risk - Depth
0.1 Percent Chance

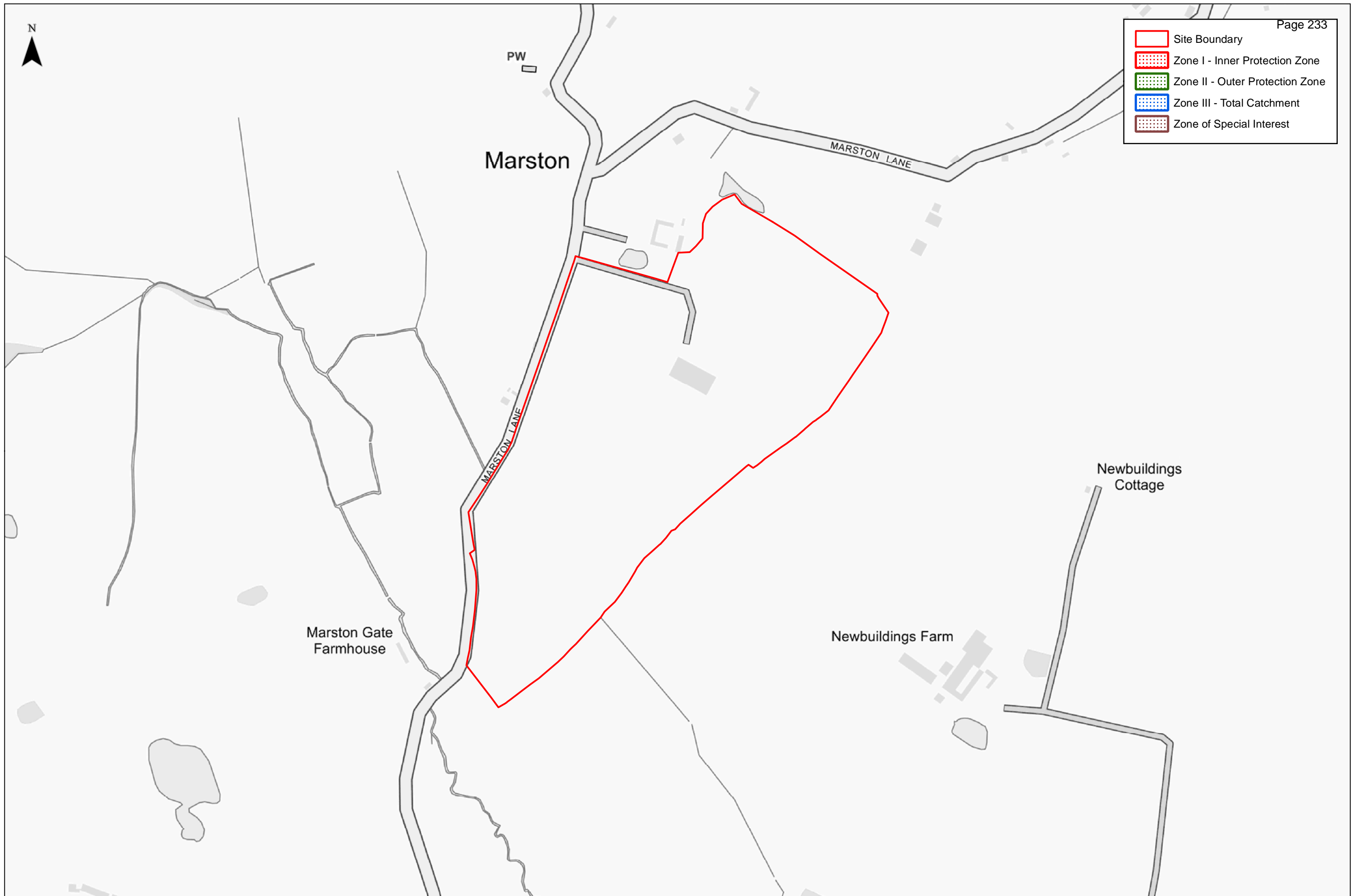
0 250 500 m

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Maps based on EA updated 'Flood Map for Surface Water' ('uFMSW') released in 2013 as the latest iteration of a national scale surface water modelling exercise

1:5,000 @ A3	Date: 16/04/2021
Drawn: IB	Checked: RL
Figure 005c	Rev A



	Site Boundary
	Zone I - Inner Protection Zone
	Zone II - Outer Protection Zone
	Zone III - Total Catchment
	Zone of Special Interest



Client:
Bovis Homes Limited

MARSTON FARM, STAFFORD
EA Ground Water Source Protection Zones

0 250 500 m

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1:5,000 @ A3	Date: 16/04/2021
Drawn: IB	Checked: RL
Figure 006	Rev A

Site Boundary
 Historic Flood Extent
 Recorded Flood Outline



Client:
Bovis Homes Limited

MARSTON FARM, STAFFORD
EA Recorded Historic Flood Extents

0 250 500 m

Contains Environment Agency information © Environment Agency and database right
Contains Ordnance Survey data © Crown copyright and database right 2019.
Historic Flood Map shows the maximum extent of all individual Recorded Flood Outlines from river, the sea and groundwater springs and shows areas of land that have previously been subject to flooding in England.
Recorded Flood Outlines shows all EA records of historic flooding from rivers, the sea, groundwater and surface water

1:5,000 @ A3	Date: 16/04/2021
Drawn: IB	Checked: RL
Figure 007	Rev A

TECHNICAL NOTE

Appendix B – Staffordshire County Council LLFA Response

Flooding Information Request

Ref: DFV-161978

Site: Marston Farm, Stafford

Grid Reference: 392283, 327174

Document created: 2021-02-09



This response is made by the County Council in its capacity as a Lead Local Flood Authority. The contents should be taken as general comments on flood risk and drainage only and are not suitable for identifying individual properties at risk of flooding.

The information is provided in good faith based on the latest flood risk data and information held by the County Council. The County Council cannot guarantee the information is complete or comment on its accuracy and is not liable for any use of this information by third parties.

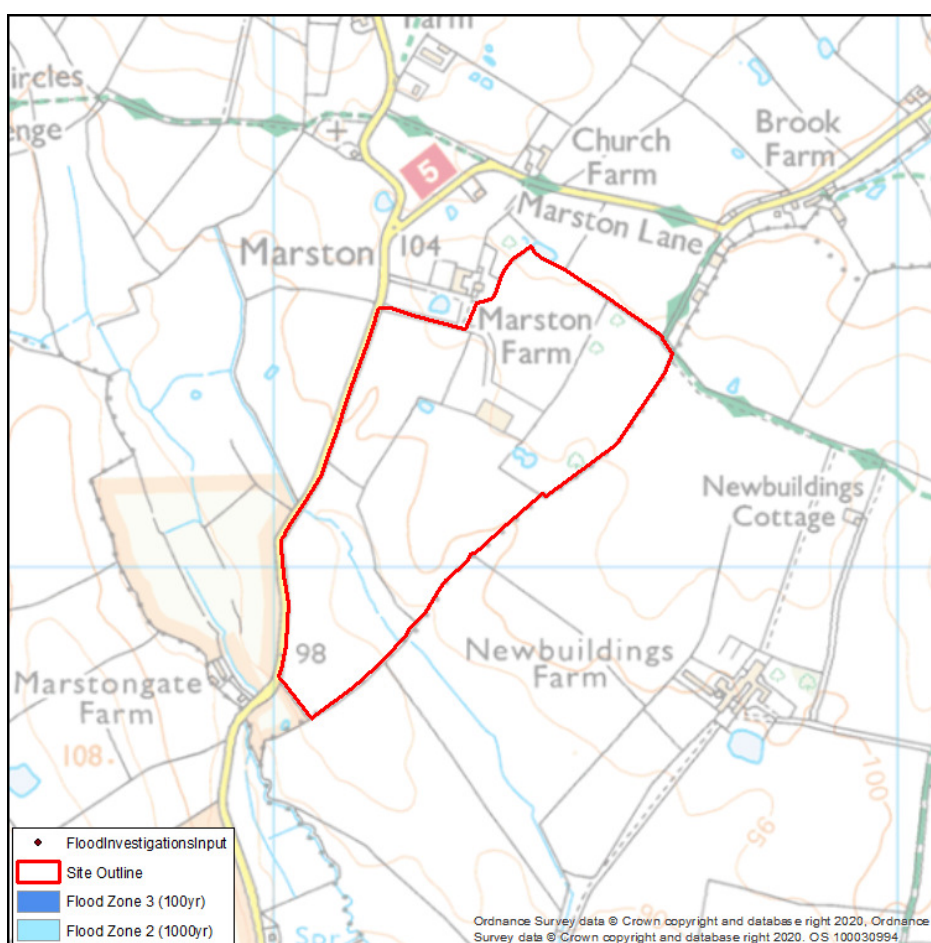


Flooding Information Request

Flood Zones

The Environment Agency's Flood Zones show the probability of fluvial flooding, ignoring defences. Flood Zone 2 shows areas with between 0.1% and 1% annual chance of flooding and Flood Zone 3 shows areas with greater than 1% annual chance of flooding.

The site appears to fall entirely within Flood Zone 1 and as such is not shown to be affected by either the 1 in 100 year (1% AEP) or 1 in 1000 year (0.1% AEP) event. If you are not certain, you should contact the Environment Agency for more information.



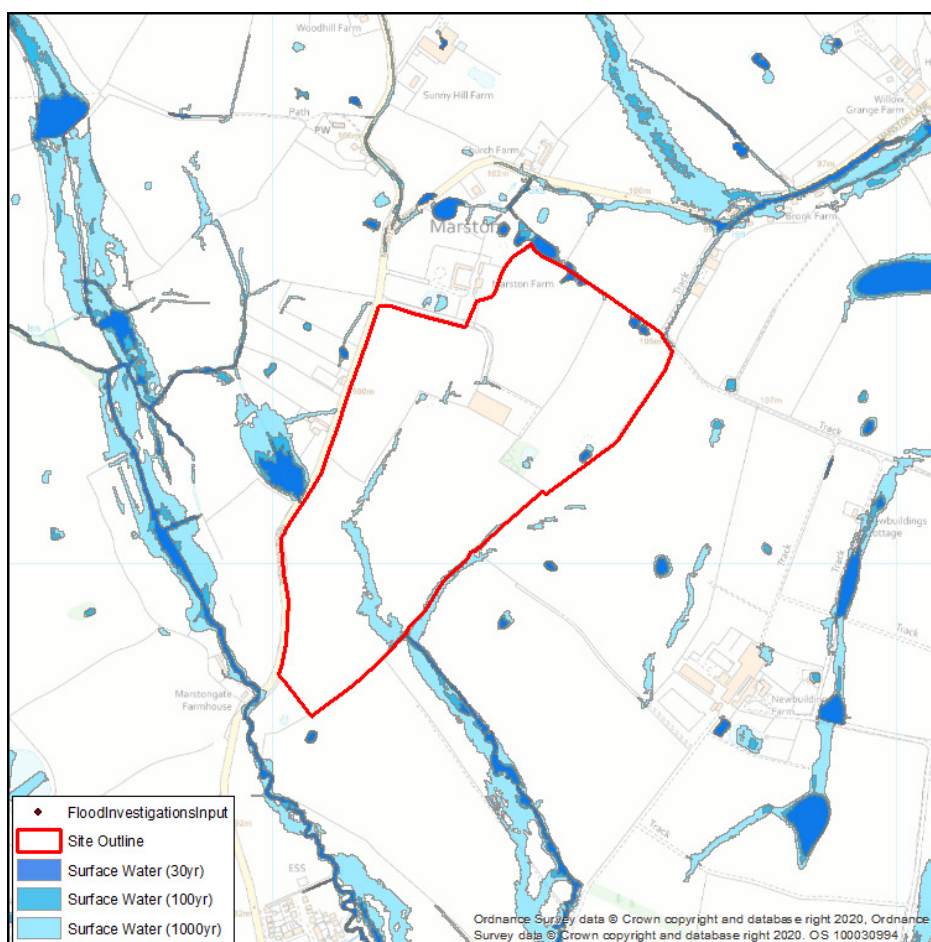
Flooding Information Request

Surface Water

The Environment Agency's Flood Map for Surface Water shows areas where surface water would be expected to flow or pond as a result of the following rainfall events:

- 1 in 30 year
- 1 in 100 year
- 1 in 1000 year

If a flow route is shown crossing your site (as opposed to isolated areas of ponding which may be rationalised during development) we expect it to be addressed in any FRA submitted.



As shown on the map above, the site may be at risk from the 1 in 30, 1 in 100, and 1 in 1000 year events (3.3%, 1%, and 0.1% AEP respectively).



Flooding Information Request



Flooding Hotspots

Staffordshire County Council is provided with records of historic flooding from a range of Risk Management Authorities (RMAs) and other sources. Records come from district councils, the Environment Agency, Severn Trent Water, United Utilities, emergency responders, residents, and other agencies.

The Council cannot verify every record of historic or provide property-specific information, but makes data available where possible, unless restricted by confidentiality agreements.

We have a record of 1 flooding incident within 20m of the site. Please contact us to discuss this in more detail.

Groundwater Flooding

We do not hold records for the proposed site and therefore cannot verify the risk of flooding from groundwater.

Further information on groundwater can be obtained from the British Geological Survey at <http://www.bgs.ac.uk> or from the Environment Agency.

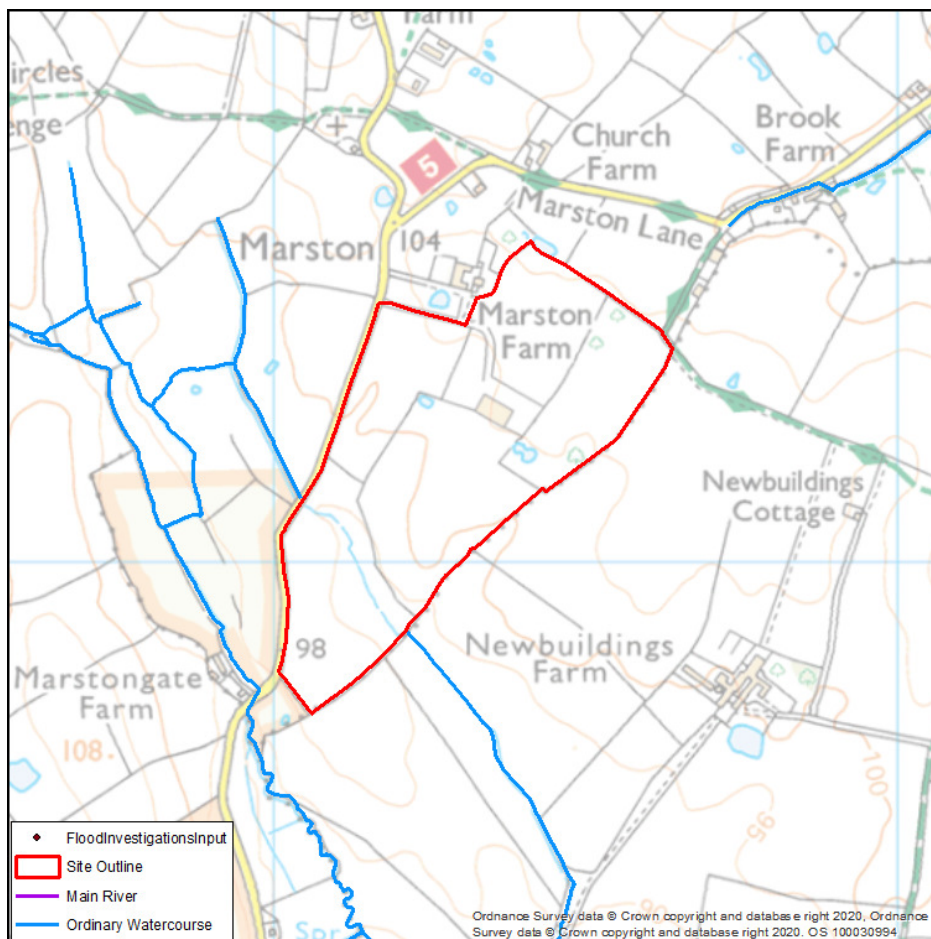


Flooding Information Request

Watercourses

Staffordshire County Council has a supervisory duty for ordinary watercourses. Ordinary watercourses include any river, stream, ditch, drain, sewer (other than a public sewer), or passage through which water flows and which is not classed as a main river and does not fall within an Internal Drainage Board (IDB).

The map below shows the location of watercourses that we are aware of:



Our records show that there is a watercourse running through your site. We would expect flood risk related to this watercourse to be investigated as part of any FRA.



Flooding Information Request



Consents and Regulation of Activities on Watercourses

If you are going to do any work on, or near to, an ordinary watercourse not maintained by an Internal Drainage Board then you may need our consent to do so. Information on consentable activities can be found on our website along with guidance and an application form:

<http://www.staffordshire.gov.uk/environment/Flood-Risk-Management/Watercourse-works>

Internal Drainage Boards

Internal Drainage Boards have permissive powers under the Land Drainage Act 1991 to undertake maintenance work on any watercourse within its district. Staffordshire has only one Internal Drainage Board and this is the Sow & Penk IDB. If you need consent for an ordinary watercourse within this IDB, you should contact the board directly.

Our records show that the site in question does not fall within the Sow & Penk IDB. If the site will drain into the IDB, you should contact the board to discuss this.



Flooding Information Request

Site-specific Comments

In response to the numbered list of specific requirements within the accompanying flood information request letter (Stantec, 3rd Feb 21), we have the following site-specific comments to offer:

- Pts 1 to 7
 - Extracts from all available mapping are included within this report.
- Pts 8 to 11
 - FFLs – should be set so as to protect properties from residual flooding risk, such as that arising from system exceedance. We would recommend FFLs are set at least 150mm above surrounding ground levels.
 - Set-back for ordinary watercourses – sufficient to allow vehicular access for maintenance.
 - Alteration to any ordinary watercourse may need LDC if it meets the criteria (please see SCC website for separate guidance).
 - SFRA's and other reports etc. should be available to download from the relevant authority's website.
- Pts 12 to 13
 - We do not hold records for the proposed site and therefore cannot verify the risk of flooding from groundwater.
- Pts 14 to 17
 - We have one flooding hotspot record. Comments on record:
 - *'Feedback of historical flooding from Highway Maintenance Engineers collected post 2007 floods. Location: Marston Ln.*
 - Relevant local policies:
 - Policy Stafford 2 (see Environment and Infrastructure sub-sections) within the Stafford Borough Local Plan.

In addition to the above, we also have the following site-specific comments:

- Existing water features should be retained and enhanced, including any ponds or ditches on the site. This would be in accordance with **Local Standard J – Retention of Natural Drainage Features**.
- Due consideration should be given to the issue of cross-catchment connections when designing the drainage strategy, so as not to inadvertently increase discharge rates/volumes above the intended design values by draining surface water across natural (i.e. existing) catchments.



Flooding Information Request



Lead Local Flood Authority Statutory Consultee Role

Staffordshire County Council, in its capacity as a Lead Local Flood Authority, has a duty to respond to consultations on surface water drainage for all major planning applications as of 15th April, 2015.

If this site will be classed as major development you will need to include a sustainable drainage design with the planning application. This should demonstrate:

- The site has an agreed discharge route for its surface water
- There is room to store attenuated water on the site up to and including the 1:100 year + climate change storm event
- That sustainable drainage techniques (including water treatment) will be used in the design
- That a responsible party will maintain the system over its lifetime
- That the site will be safe from flooding and will not increase the risk of flooding to any third-party

Guidance on the SuDS design process and local standards and arrangements for adoption and maintenance of SuDS, contents of a drainage strategy, and a proforma to accompany drainage strategies can be found in the Staffordshire SuDS Handbook:

<https://www.staffordshire.gov.uk/environment/Flood-Risk-Management/Information-for-planners-and-developers.aspx>

End of report



Flooding Information Request



Contact Details

Environment Agency

Flood Zones

<https://flood-map-for-planning.service.gov.uk/>

Surface Water

<https://flood-warning-information.service.gov.uk/long-term-flood-risk/map>

Groundwater Information

<http://apps.environment-agency.gov.uk/wiyby/37833.aspx>

Sow & Penk IDB

<https://www.shiregroup-idbs.gov.uk/idbs/sow-penk/>

Staffordshire County Council

<https://www.staffordshire.gov.uk/environment/Flood-Risk-Management/About.aspx>

[Redacted]

[Redacted]



TECHNICAL NOTE

Appendix C – EA Flood Data

[REDACTED]

From: Enquiries_Westmids <[REDACTED]>
Sent: 28 April 2021 15:53
To: [REDACTED]
Subject: 204590 - Land at Marston Farm, Stafford, Staffordshire
Attachments: P-4 204590.pdf

204590

Dear [REDACTED],

Enquiry regarding Product-4 FRA for land at Marston Farm, Stafford, Staffordshire ST18 9SX

Thank you for your enquiry which was received on 03/02/2021

We respond to requests under the Freedom of Information Act 2000 and Environmental Information Regulations 2004. The information is attached.

Groundwater

Q: Details of any groundwater source protection zones and the nature of groundwater flow in the vicinity of the site i.e. Is the site located on an aquifer? Please provide indicative details of the ground conditions and level of water table if possible.

The Site is located on the bedrock of the Mudstone and Halite-Stone Mercia Mudstone group, which is designated as a Secondary B Aquifer by the Environment Agency. Superficial aquifer deposits are indicated to be absent. The site is not within a groundwater Source Protections Zone. The GWCL team does not hold information on groundwater levels or depth to groundwater at this location. The enquirer could refer to BGS records at www.bgs.ac.uk/data/boreholescans/home.html

Q: Details of any known groundwater flooding issues.

The Environment Agency is responsible for managing flood risk from main rivers, reservoirs and the sea. Groundwater, surface water run-off and smaller water courses are all defined as 'local' sources of flood risk and the management of this falls under the responsibility of the Lead Local Flood Authority (LLFA). They are responsible for creating a Preliminary Flood Risk Assessment (PFRA) for their area, this document includes a:

- summary of information on significant historic floods;
- summary of information on future flood risks based primarily on the Environment Agency's national datasets;
- spreadsheet containing information for reporting to the European Commission.

If a LLFA is within a Flood Risk Area (an area where there is a significant risk of flooding from local sources) the PFRA will also include information on this.

We therefore would encourage you to direct your query to the Lead Local Flood Authority. For your convenience, a search based on the location provided indicates the area is in the Humber River Basin District and the Lead Local Flood Authority is Staffordshire County Council. Further information, including access to the Preliminary Flood Risk Assessment document for your area of interest, can be found on our website via the following link;

<http://www.environment-agency.gov.uk/research/planning/135491.aspx>

We are unable to provide you with a full product 4 response because:

There is no detailed modelled information available for this site and we do not have any records of flooding in this area.

Name	Product-4
Licence	Open Government Licence
Information Warnings	N/A.

Data Available Online

Many of our flood datasets are available online:

- Flood Map For Planning ([Flood Zone 2](#), [Flood Zone 3](#), [Flood Storage Areas](#), [Flood Defences](#), [Areas Benefiting from Defences](#), ,)
- [Risk of Flooding from Rivers and Sea](#)
- [Historic Flood Map](#)
- [Current Flood Warnings](#)

You may wish to look at <http://data.gov.uk> to see what other Environment Agency data is available for you online.

Regards.

Matthew Weston BA (Hons)
Customer & Engagement Officer
Customer & Engagement Team
West Midlands Area

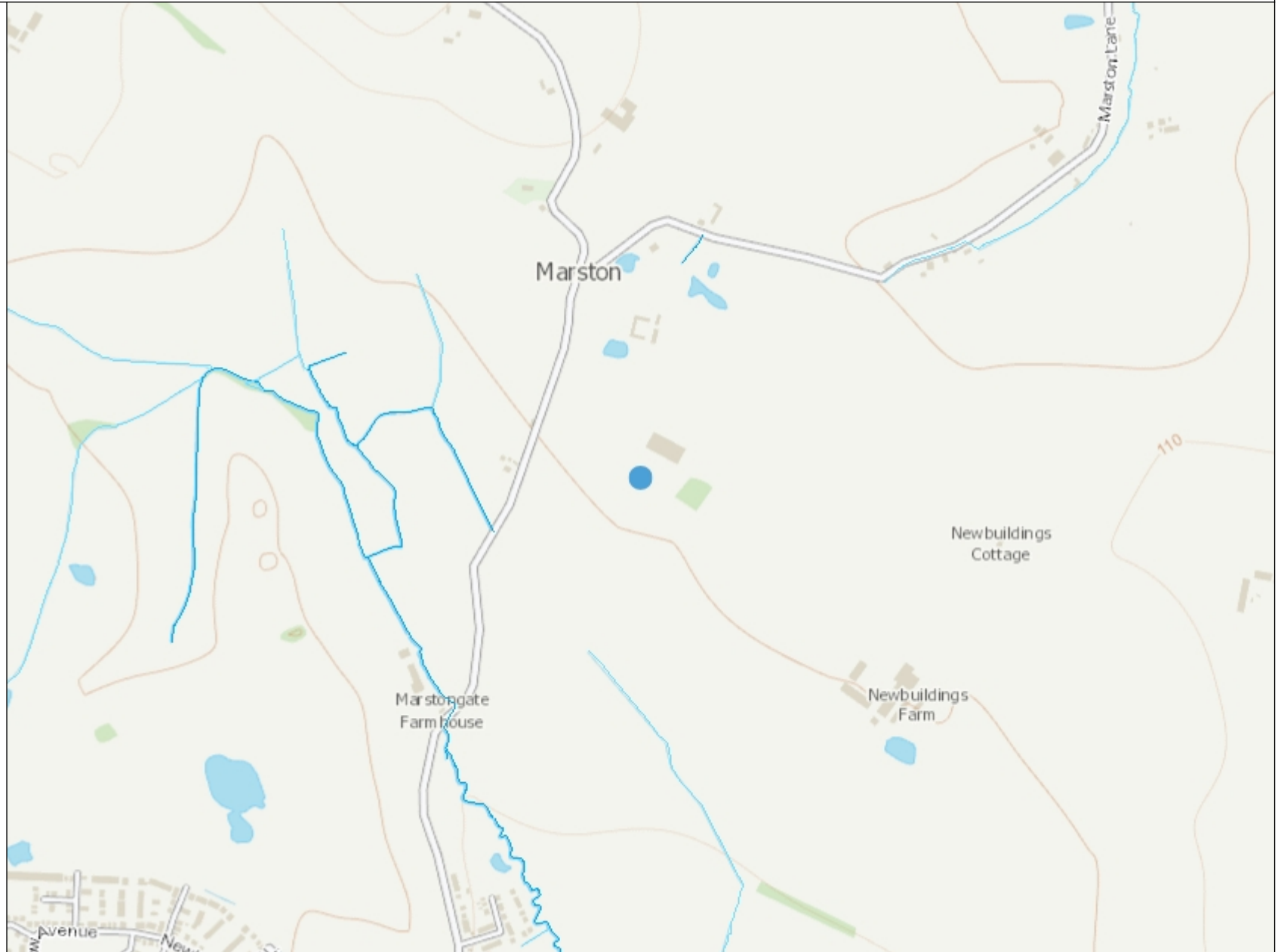
www.gov.uk/environment-agency



Risk of Flooding (Rivers and Sea) centred on SJ9230227195 created 20.04.21

Legend

- Statutory Main Rivers
- Detailed River Network
 - Primary River
 - Secondary River
 - Tertiary River
 - Lake / Reservoir
 - Canal
 - Canal Tunnel
 - Extended Culvert
 - Multiple Channel Culvert
 - Underground River (potential sewer)
 - Underground River (inferred)
 - Underground River (local knowledge)
 - Undefined
- Offline Drainage features
- Risk of flooding from rivers and sea
 - High ($\geq 3.3\%$)
 - Medium (3.3% - 1%)
 - Low (1% - 0.1%)
 - Very Low ($< 0.1\%$)



Product 4 (Detailed Flood Risk Data) for Land at Marston Farm, Stafford, Staffordshire

Reference number: 204590

Date of issue: 27 April 2021

We are unable to provide you with a full product 4 response because:

There is no detailed modelled information available for this site and we do not have any records of flooding in this area.

Flood Map for Planning (Rivers and Sea)

The Flood Map for planning (Rivers and Sea) indicates the area at risk of flooding, **assuming no flood defences exist**, for a flood event with a 0.5% chance of occurring in any year for flooding from the sea, or a 1% chance of occurring for fluvial (river) flooding (flood zone 3). It also shows the extent of the Extreme Flood Outlines (Flood zone 2) which represents the extent of a flood event with a 0.1% chance of occurring in any year, or the highest recorded historic extent if greater. The flood zones refer to the land at risk of flooding and **does not** refer to individual properties. It is possible for properties to be built at a level above the floodplain but still fall within the risk area.

The Flood Map only indicates the extent and likelihood of flooding from rivers or the sea. It should also be remembered that flooding may occur from other sources such as surface water sewers, road drainage, etc. This map can be accessed via our website: <https://flood-map-for-planning.service.gov.uk/>

Recorded Flooding

With regards to the history of flooding I can advise that we do not have any records of flooding in this area. It is possible that other flooding may have occurred that we do not have records for, and other organisations, such as the Lead Local Flood Authority or Internal Drainage Boards (where relevant), may have records.

This information is provided subject to the [Open Government Licence](#), which you should read for details of permitted use.

Risk of Surface Water Flooding Map

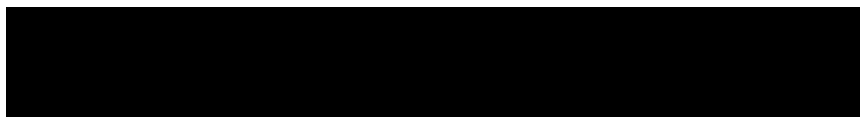
Managing the risk of flooding from surface water is the responsibility of Lead Local Flood Authorities. The 'risk of flooding from surface water' map has been produced by the Environment Agency on behalf of government, using information and input from Lead Local Flood Authorities.

You may wish to contact your Local Authority who may be able to provide information on surface water.

It is not possible to say for certain what the flood risk is but we use the best information available to provide an indication so that people can make informed choices about living with or



managing the risks. The information we supply does not provide an indicator of flood risk at an individual site level. Further information can be found on the Environment Agency's website, <https://flood-warning-information.service.gov.uk/long-term-flood-risk>



TECHNICAL NOTE

TECHNICAL NOTE

Appendix D – STW Correspondence



© Crown copyright and database rights 2021 Ordnance Survey 100031673
 Scale: 1:1250
 Date: 17/02/21
 Clean Water Plan A1
 Data updated: 14/1/20
 Map Centre: 302273.327196
 Our Ref: 507765 - 2
 Powered by digital

Hydrant	Valve	Aqueduct
Meter	Water Main	Duct
Air Valve	Abandoned Pipe	Service Pipe

47042 - Marston Farm



Do not scale off this map. The plan and any information supplied with it is furnished as a general guide, is only valid at the date of issue and no warranty as to its correctness is given or implied. In particular this plan and any information shown on it must not be relied upon in the event of any development or works (including but not limited to excavations) in the vicinity of SEVERN TRENT WATER assets or for the purposes of determining the suitability of a point of connection to the sewerage or distribution systems. Reproduction by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and database right 2004. All rights reserved. Ordnance Survey licence number 100031673. Document users other than SEVERN TRENT WATER business users are advised that this document is provided for reference purpose only and is subject to copyright, therefore, no further copies should be made from it.

GENERAL CONDITIONS AND PRECAUTIONS TO BE TAKEN WHEN CARRYING OUT WORK ADJACENT TO SEVERN TRENT WATER'S APPARATUS

Please ensure that a copy of these conditions is passed to your representative and/or your contractor on site. If any damage is caused to Severn Trent Water Limited (STW) apparatus (defined below), the person, contractor or subcontractor responsible must inform STW immediately on:

- a) These general conditions and precautions apply to the public sewerage, water distribution and cables in ducts including (but not limited to) sewers which are the subject of an Agreement under Section 104 of the Water Industry Act 1991 (a legal agreement between a developer and STW, where a developer agrees to build sewers to an agreed standard, which STW will then adopt); mains installed in accordance with an agreement for the self-construction of water mains entered into with STW and the assets described at condition b) of these general conditions and precautions. Such apparatus is referred to as "STW Apparatus" in these general conditions and precautions.
- b) Please be aware that due to The Private Sewers Transfer Regulations June 2011, the number of public sewers has increased, but many of these are not shown on the public sewer record. However, some idea of their positions may be obtained from the position of inspection covers and their existence must be anticipated.
- c) On request, STW will issue a copy of the plan showing the approximate locations of STW Apparatus although in certain instances a charge will be made. The position of private drains, private sewers and water service pipes to properties are not normally shown but their presence must be anticipated. This plan and the information supplied with it is furnished as a general guide only and STW does not guarantee its accuracy.
- d) STW does not update these plans on a regular basis. Therefore the position and depth of STW Apparatus may change and this plan is issued subject to any such change. Before any works are carried out, you should confirm whether any changes to the plan have been made since it was issued.
- e) The plan must not be relied upon in the event of excavations or other works in the vicinity of STW Apparatus. It is your responsibility to ascertain the precise location of any STW Apparatus prior to undertaking any development or other works (including but not limited to excavations).
- f) No person or company shall be relieved from liability for loss and/or damage caused to STW Apparatus by reason of the actual position and/or depths of STW Apparatus being different from those shown on the plan.

In order to achieve safe working conditions adjacent to any STW Apparatus the following should be observed:

1. All STW Apparatus should be located by hand digging prior to the use of mechanical excavators.
2. All information set out in any plans received from us, or given by our staff at the site of the works, about the position and depth of the mains, is approximate. Every possible precaution should be taken to avoid damage to STW Apparatus. You or your contractor must ensure the safety of STW Apparatus and will be responsible for the cost of repairing any loss and/or damage caused (including without limitation replacement parts).
3. Water mains are normally laid at a depth of 900mm. No records are kept of customer service pipes which are normally laid at a depth of 750mm; but some idea of their positions may be obtained from the position of stop tap covers and their existence must be anticipated.
4. During construction work, where heavy plant will cross the line of STW Apparatus, specific crossing points must be agreed with STW and suitably reinforced where required. These crossing points should be clearly marked and crossing of the line of STW Apparatus at other locations must be prevented.
5. Where it is proposed to carry out piling or boring within 20 metres of any STW Apparatus, STW should be consulted to enable any affected STW Apparatus to be surveyed prior to the works commencing.
6. Where excavation of trenches adjacent to any STW Apparatus affects its support, the STW Apparatus must be supported to the satisfaction of STW. Water mains and some sewers are pressurised and can fail if excavation removes support to thrust blocks to bends and other fittings.
7. Where a trench is excavated crossing or parallel to the line of any STW Apparatus, the backfill should be adequately compacted to prevent any settlement which could subsequently cause damage to the STW Apparatus. In special cases, it may be necessary to provide permanent support to STW Apparatus which has been exposed over a length of the excavation before backfilling and reinstatement is carried out. There should be no concrete backfill in contact with the STW Apparatus.
8. No other apparatus should be laid along the line of STW Apparatus irrespective of clearance. Above ground apparatus must not be located within a minimum of 3 metres either side of the centre line of STW Apparatus for smaller sized pipes and 6 metres either side for larger sized pipes without prior approval. No manhole or chamber shall be built over or around any STW Apparatus.
9. A minimum radial clearance of 300 millimetres should be allowed between any plant or equipment being installed and existing STW Apparatus. We reserve the right to increase this distance where strategic assets are affected.
10. Where any STW Apparatus coated with a special wrapping is damaged, even to a minor extent, STW must be notified and the trench left open until the damage has been inspected and the necessary repairs have been carried out. In the case of any material damage to any STW Apparatus causing leakage, weakening of the mechanical strength of the pipe or corrosion-protection damage, the necessary remedial work will be recharged to you.
11. It may be necessary to adjust the finished level of any surface boxes which may fall within your proposed construction. Please ensure that these are not damaged, buried or otherwise rendered inaccessible as a result of the works and that all stop taps, valves, hydrants, etc. remain accessible and operable. Minor reduction in existing levels may result in conflict with STW Apparatus such as valve spindles or tops of hydrants housed under the surface boxes. Checks should be made during site investigations to ascertain the level of such STW Apparatus in order to determine any necessary alterations in advance of the works.
12. With regard to any proposed resurfacing works, you are required to contact STW on the number given above to arrange a site inspection to establish the condition of any STW Apparatus in the nature of surface boxes or manhole covers and frames affected by the works. STW will then advise on any measures to be taken, in the event of this a proportionate charge will be made.
13. You are advised that STW will not agree to either the erection of posts, directly over or within 1.0 metre of valves and hydrants.
14. No explosives are to be used in the vicinity of any STW Apparatus without prior consultation with STW.

TREE PLANTING RESTRICTIONS

There are many problems with the location of trees adjacent to sewers, water mains and other STW Apparatus and these can lead to the loss of trees and hence amenity to the area which many people may have become used to. It is best if the problem is not created in the first place. Set out below are the recommendations for tree planting in close proximity to public sewers, water mains and other STW Apparatus.

15. Please ensure that, in relation to STW Apparatus, the mature root systems and canopies of any tree planted do not and will not encroach within the recommended distances specified in the notes below.
16. Both Poplar and Willow trees have extensive root systems and should not be planted within 12 metres of a sewer, water main or other STW Apparatus.
17. The following trees and those of similar size, be they deciduous or evergreen, should not be planted within 6 metres of a sewer, water main or other STW Apparatus. E.g. Ash, Beech, Birch, most Conifers, Elm, Horse Chestnut, Lime, Oak, Sycamore, Apple and Pear. Asset Protection Statements Updated May 2014
18. STW personnel require a clear path to conduct surveys etc. No shrubs or bushes should be planted within 2 metres of the centre line of a sewer, water main or other STW Apparatus.
19. In certain circumstances, both STW and landowners may wish to plant shrubs/bushes in close proximity to a sewer, water main of other STW Apparatus for screening purposes. The following are shallow rooting and are suitable for this purpose: Blackthorn, Broom, Cotoneaster, Elder, Hazel, Laurel, Privet, Quickthorn, Snowberry, and most ornamental flowering shrubs.



© Crown copyright and database rights 2021 Ordnance Survey 100018507
 Scale: 1:250
 Map Centre: 302273.327196
 Date: 17/02/21
 Our Ref: 507765 - 1
 Wastewater Plan A1
 Powered by dig

Public Foul Gravity/Lateral Drain	Highway Drain	Manhole Foul	Manhole Surface
Public Combined Gravity/Lateral Drain	Overflow Pipe	Manhole Foul	Manhole Surface
Public Surface Water Gravity/Lateral Drain	Disposal Pipe	Abandoned Pipe	Section 104 sewers are shown in green
Pressure Foul	Culverted Water Course	Private sewers are shown in magenta	
Pressure Combined	Pumping Station		
Pressure Surface Water	Fitting		

47042 - Marston Farm



Do not scale off this Map. This plan and any information supplied with it is furnished as a general guide, is only valid at the date of issue and no warranty as to its correctness is given or implied. In particular this plan and any information shown on it must not be relied upon in the event of any development or works (including but not limited to excavations) in the vicinity of SEVERN TRENT WATER assets or for the purposes of determining the suitability of a point of connection to the sewerage or distribution systems. On 1 October 2011 most private sewers and private lateral drains in Severn Trent Water's sewerage area, which were connected to a public sewer as at 1 July 2011. Transferred to the ownership of Severn Trent Water and became public sewers and public lateral drains. A further transfer takes place on 1 October 2012. Private pumping stations, which form part of these sewers or lateral drains, will transfer to ownership of Severn Trent Water on or before 1 October 2016. Severn Trent Water does not possess complete records of these assets. These assets may not be displayed on the map. Reproduction by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and database rights 2004. All rights reserved. Ordnance Survey licence number: 10001673. Document users other than SEVERN TRENT WATER business users are advised that this document is provided for reference purpose only and is subject to copyright, therefore, no further copies should be made from it.



GENERAL CONDITIONS AND PRECAUTIONS TO BE TAKEN WHEN CARRYING OUT WORK ADJACENT TO SEVERN TRENT WATER'S APPARATUS

Please ensure that a copy of these conditions is passed to your representative and/or your contractor on site. If any damage is caused to Severn Trent Water Limited (STW) apparatus (defined below), the person, contractor or subcontractor responsible must inform STW immediately on:

- a) These general conditions and precautions apply to the public sewerage, water distribution and cables in ducts including (but not limited to) sewers which are the subject of an Agreement under Section 104 of the Water Industry Act 1991 (a legal agreement between a developer and STW, where a developer agrees to build sewers to an agreed standard, which STW will then adopt); mains installed in accordance with an agreement for the self-construction of water mains entered into with STW and the assets described at condition b) of these general conditions and precautions. Such apparatus is referred to as "STW Apparatus" in these general conditions and precautions.
- b) Please be aware that due to The Private Sewers Transfer Regulations June 2011, the number of public sewers has increased, but many of these are not shown on the public sewer record. However, some idea of their positions may be obtained from the position of inspection covers and their existence must be anticipated.
- c) On request, STW will issue a copy of the plan showing the approximate locations of STW Apparatus although in certain instances a charge will be made. The position of private drains, private sewers and water service pipes to properties are not normally shown but their presence must be anticipated. This plan and the information supplied with it is furnished as a general guide only and STW does not guarantee its accuracy.
- d) STW does not update these plans on a regular basis. Therefore the position and depth of STW Apparatus may change and this plan is issued subject to any such change. Before any works are carried out, you should confirm whether any changes to the plan have been made since it was issued.
- e) The plan must not be relied upon in the event of excavations or other works in the vicinity of STW Apparatus. It is your responsibility to ascertain the precise location of any STW Apparatus prior to undertaking any development or other works (including but not limited to excavations).
- f) No person or company shall be relieved from liability for loss and/or damage caused to STW Apparatus by reason of the actual position and/or depths of STW Apparatus being different from those shown on the plan.

In order to achieve safe working conditions adjacent to any STW Apparatus the following should be observed:

1. All STW Apparatus should be located by hand digging prior to the use of mechanical excavators.
2. All information set out in any plans received from us, or given by our staff at the site of the works, about the position and depth of the mains, is approximate. Every possible precaution should be taken to avoid damage to STW Apparatus. You or your contractor must ensure the safety of STW Apparatus and will be responsible for the cost of repairing any loss and/or damage caused (including without limitation replacement parts).
3. Water mains are normally laid at a depth of 900mm. No records are kept of customer service pipes which are normally laid at a depth of 750mm; but some idea of their positions may be obtained from the position of stop tap covers and their existence must be anticipated.
4. During construction work, where heavy plant will cross the line of STW Apparatus, specific crossing points must be agreed with STW and suitably reinforced where required. These crossing points should be clearly marked and crossing of the line of STW Apparatus at other locations must be prevented.
5. Where it is proposed to carry out piling or boring within 20 metres of any STW Apparatus, STW should be consulted to enable any affected STW Apparatus to be surveyed prior to the works commencing.
6. Where excavation of trenches adjacent to any STW Apparatus affects its support, the STW Apparatus must be supported to the satisfaction of STW. Water mains and some sewers are pressurised and can fail if excavation removes support to thrust blocks to bends and other fittings.
7. Where a trench is excavated crossing or parallel to the line of any STW Apparatus, the backfill should be adequately compacted to prevent any settlement which could subsequently cause damage to the STW Apparatus. In special cases, it may be necessary to provide permanent support to STW Apparatus which has been exposed over a length of the excavation before backfilling and reinstatement is carried out. There should be no concrete backfill in contact with the STW Apparatus.
8. No other apparatus should be laid along the line of STW Apparatus irrespective of clearance. Above ground apparatus must not be located within a minimum of 3 metres either side of the centre line of STW Apparatus for smaller sized pipes and 6 metres either side for larger sized pipes without prior approval. No manhole or chamber shall be built over or around any STW Apparatus.
9. A minimum radial clearance of 300 millimetres should be allowed between any plant or equipment being installed and existing STW Apparatus. We reserve the right to increase this distance where strategic assets are affected.
10. Where any STW Apparatus coated with a special wrapping is damaged, even to a minor extent, STW must be notified and the trench left open until the damage has been inspected and the necessary repairs have been carried out. In the case of any material damage to any STW Apparatus causing leakage, weakening of the mechanical strength of the pipe or corrosion-protection damage, the necessary remedial work will be recharged to you.
11. It may be necessary to adjust the finished level of any surface boxes which may fall within your proposed construction. Please ensure that these are not damaged, buried or otherwise rendered inaccessible as a result of the works and that all stop taps, valves, hydrants, etc. remain accessible and operable. Minor reduction in existing levels may result in conflict with STW Apparatus such as valve spindles or tops of hydrants housed under the surface boxes. Checks should be made during site investigations to ascertain the level of such STW Apparatus in order to determine any necessary alterations in advance of the works.
12. With regard to any proposed resurfacing works, you are required to contact STW on the number given above to arrange a site inspection to establish the condition of any STW Apparatus in the nature of surface boxes or manhole covers and frames affected by the works. STW will then advise on any measures to be taken, in the event of this a proportionate charge will be made.
13. You are advised that STW will not agree to either the erection of posts, directly over or within 1.0 metre of valves and hydrants,
14. No explosives are to be used in the vicinity of any STW Apparatus without prior consultation with STW.

TREE PLANTING RESTRICTIONS

There are many problems with the location of trees adjacent to sewers, water mains and other STW Apparatus and these can lead to the loss of trees and hence amenity to the area which many people may have become used to. It is best if the problem is not created in the first place. Set out below are the recommendations for tree planting in close proximity to public sewers, water mains and other STW Apparatus.

15. Please ensure that, in relation to STW Apparatus, the mature root systems and canopies of any tree planted do not and will not encroach within the recommended distances specified in the notes below.
16. Both Poplar and Willow trees have extensive root systems and should not be planted within 12 metres of a sewer, water main or other STW Apparatus.
17. The following trees and those of similar size, be they deciduous or evergreen, should not be planted within 6 metres of a sewer, water main or other STW Apparatus. E.g. Ash, Beech, Birch, most Conifers, Elm, Horse Chestnut, Lime, Oak, Sycamore, Apple and Pear. Asset Protection Statements Updated May 2014
18. STW personnel require a clear path to conduct surveys etc. No shrubs or bushes should be planted within 2 metre of the centre line of a sewer, water main or other STW Apparatus.
19. In certain circumstances, both STW and landowners may wish to plant shrubs/bushes in close proximity to a sewer, water main or other STW Apparatus for screening purposes. The following are shallow rooting and are suitable for this purpose: Blackthorn, Broom, Cotoneaster, Elder, Hazel, Laurel, Privet, Quickthorn, Snowberry, and most ornamental flowering shrubs.

Manhole Reference Liquid Type Cover Level Invert Level Depth to Invert

Table with 5 columns: Manhole Reference, Liquid Type, Cover Level, Invert Level, Depth to Invert. The table body is empty and consists of a grid of 25 rows and 5 columns.

Manhole Reference Liquid Type Cover Level Invert Level Depth to Invert

Table with 5 columns: Manhole Reference, Liquid Type, Cover Level, Invert Level, Depth to Invert. The table body is empty and consists of a grid of 25 rows and 5 columns.

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TECHNICAL NOTE

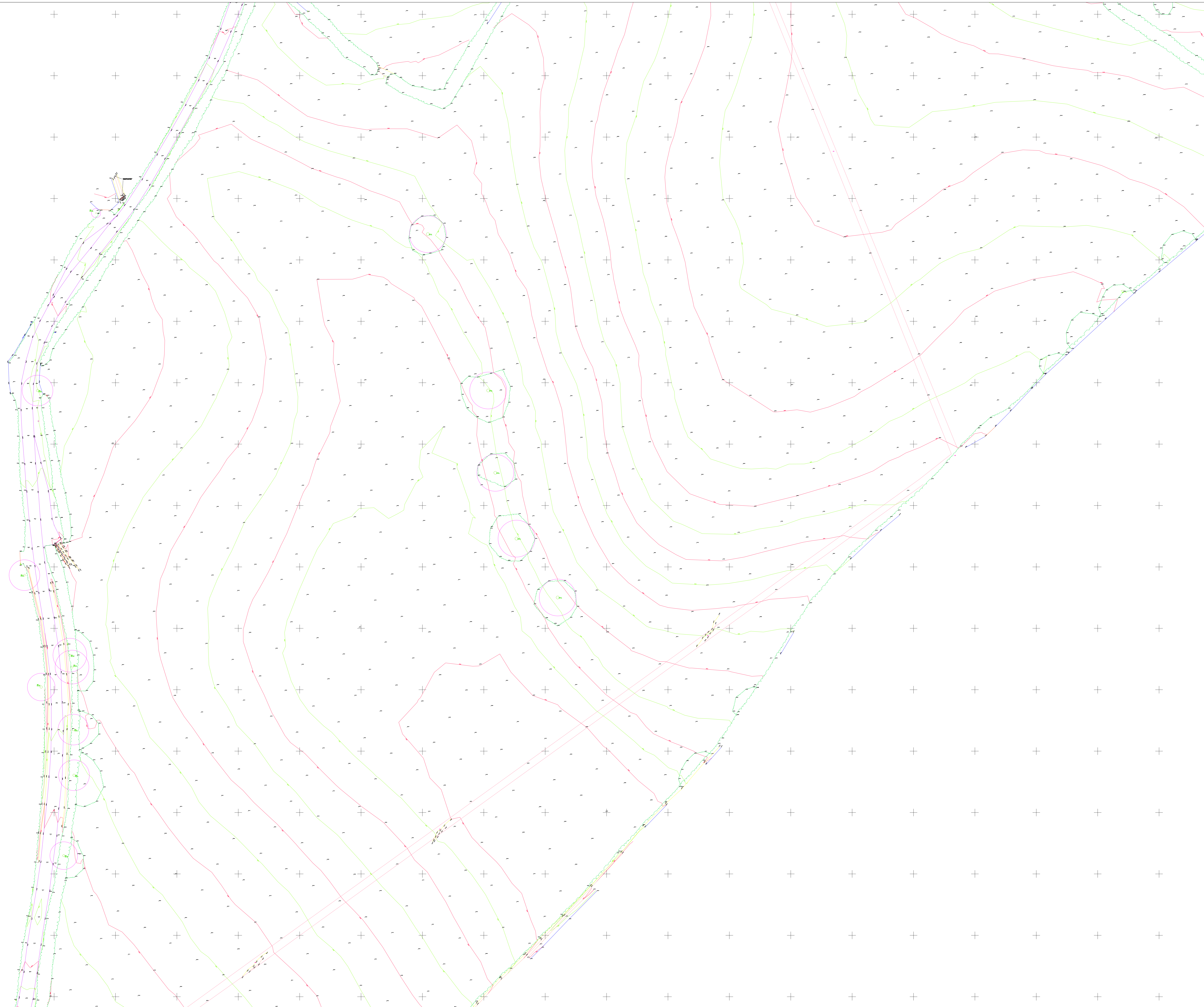
Appendix E – Topographic Survey



OS NORTH / INDICATIVE ONLY

Topographical Abbreviations

A/R	Assumed Route	M/R	Marker
BH	Borehole	MT	Mercury Telecom Cover
BOL	Bollard	OC	Overhead Cable
BT	British Telecom Cover	OP	Overhead Pipe
BW	Barbed Wire Fence	OSBM	Ordnance Survey Bench Mark
BWK	Brickwork	PS	Post Box
CATV	Cable TV Cover	P/M	Permanent Ground Marker
CB	Close Boarded Fence	PR	Post & Rail Fence
CCTV	Closed Circuit TV	PW	Post & Wire Fence
CHK	Chainlink Fence	PMM	Post & Wire Mesh Fence
CHPL	Chestnut Paling Fence	RE	Rodding Eye
CL	Cover Level	RG	Road Gully
CM	Cable Marker	RN	Road Name
CP	Catch Pit	RS	Road Sign
CPL	Catch Pit Base Level	RW	Retaining Wall
DIA	Diameter	RWP	Rain Water Pipe
DK	Drop Kerb	SAP	Sealing
DP	Down Pipe	SC	Stop Cock
EJB	Electricity Junction Box	SPR	Spring
ED	Electricity Cover	STA	Stop Station
EP	Electricity Pole	SV	Stop Valve
ER	Earthing Rod	SW	Soil Vent Pipe
FCL	Finished Ceiling Level	SW	Storm Water
FH	Fire Hydrant	TB	Telephone Box
FIG	Feed into Ground	TBM	Temporary Bench Mark
FW	Foul Water	TFR	Taken From Records
GU	Gully	T/B	Telephone Junction Box
GV	Gas Valve	T/P	Trap Pit
H	Height	TL	Traffic Light
IC	Inspection Cover	TP	Telephone Pole
IL	Invert Level	UTL	Unable To Lift
IR	Iron Rolling Fence	UTT	Unable To Trace
KO	Kerb Outlet	VP	Vent Pipe
LB	Litter Bin	W/M	Water Key Hole
LC	Lamp Column	WM	Water Meter
LP	Lamp Post	WV	Water Valve
MH	Manhole		



Notes

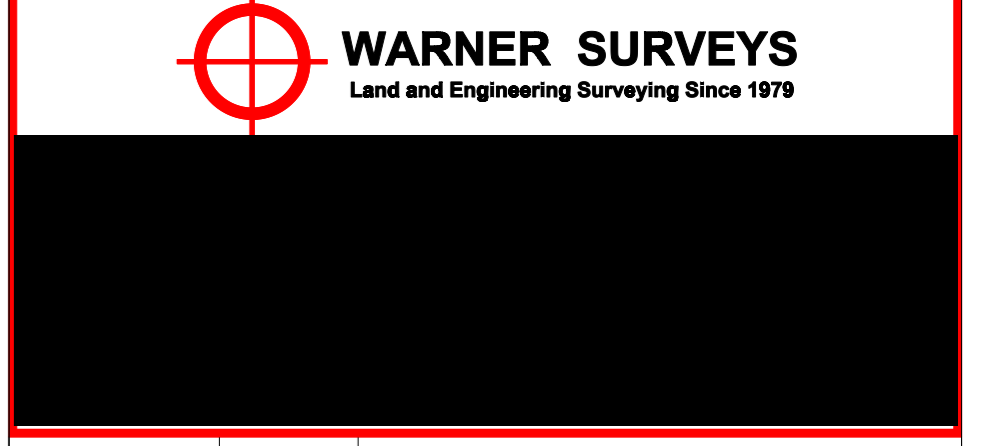
The survey has been oriented to Ordnance Survey (OS) National Grid (OSGB36) using Industry Standard Network RTK GPS equipment utilising the OS Active Network (OS Net). A true OSGB36 coordinate has been established on site using the OSNTD5 (transformation) & OSGB15 (geoid) models. The survey detail has been correlated to this point and a further one (or more) OSGB36 points established to produce a true OS bearing for angle orientation. Scale factor 1.0 has been applied therefore the survey coordinates are shown on a pseudo OS grid.

All levels are in metres unless otherwise specified
All heights are in millimetres unless otherwise specified

5	-	-	-	-
4	-	-	-	-
3	-	-	-	-
2	-	-	-	-
1	-	-	-	-
0	AR	First Complete Issue		2107
		Preliminary - Not Complete		

Rev	Svyr	QA Check	Description	Date

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SURVEYED	WS	
DRAWN	SS	STANTEC
SCALE	1:4	

MARSTON FM TOPOGRAPHICAL SURVEY

TOPOGRAPHICAL SURVEY

JOB No	DRAWING NUMBER
BT/121/0591	002

Appendix 3



Ecology Note

Marston Farm, Stafford. October 2022

This technical note has been prepared by CSA Environmental on behalf of Vistry Group in relation to Marston Farm, Stafford (hereafter referred to as 'the Site'). It provides an update on ecological work undertaken to date as well as an overview of likely impacts as a result of current proposals and a discussion on achieving Biodiversity Net Gain at the Site.

1.0 Survey Work Undertaken to Date

- 1.1 To date, a Preliminary Ecological Appraisal (PEA) and great crested newt presence/absence surveys have been undertaken to inform proposals at Marston Farm. The PEA, undertaken in February 2021, found the Site to be dominated by agricultural grassland, a habitat considered to be of low ecological value. Habitats of most ecological interest at the Site comprise hedgerows, mature trees and a pond. The Habitats Plan for the Site is included at the end of this report.
- 1.2 Surveys to determine presence/absence of great crested newt DNA were completed in June 2021, with presence confirmed within the centrally located on-site pond. Although agricultural grassland offers limited potential for this species, on-site hedgerows, grassland margins and scrub offers suitable terrestrial habitat.
- 1.3 Further survey work for a range of protected species is yet to be undertaken and will feed into design proposals when complete.

2.0 Confirmed Constraints

- 2.1 Although habitats on-site are generally of low ecological value a number of important habitat features are present on and in proximity to the Site. Important habitats on-site are considered to be mature hedgerows, trees and ponds.
- 2.2 The Site is located near to several statutory and non-statutory designated sites, considered important due to the sensitive habitats they support. This includes Cannock Chase Special Area of Conservation (SAC) which is c. 7.8km from the proposed development site, comfortably within the 15km Zone of Influence identified. As such, likely significant effects will be explored within a Habitats Regulations Assessment. On the assumption that mitigation for potential negative impacts to this European Protected Site may be required, the developer would expect to contribute to the Cannock Chase Strategic

Management and Monitoring Measures (SAMMM). This contribution would be secured by a Unilateral Undertaking (UU) or Section 106 agreement and should enable the development to meet the Requirements of the Conservation of Habitats and Species Regulations 2017 (the Habitat Regulations).

- 2.3 The impacts of drainage and recreation should be explored as the Site is located within close proximity to Doxey and Tillington Marshes SSSI (c. 2.3km south), Astonfields Balancing Lakes LNR (c. 1.7km south) and Stafford Common LWS (c. 0.2km south).
- 2.4 Great crested newts are known to persist within the on-site pond. District Level Licensing (DLL) has now been adopted within Staffordshire and as such, the site can be enrolled into the NatureSpace DLL scheme. To take part, an application form will need to be completed and a payment made.

3.0 Biodiversity Net Gain

- 3.1 Habitat condition assessments of all on-site habitats have been undertaken to inform an evidence-based baseline Biodiversity Metric.
- 3.2 As part of proposals, and the post-development scenario within the Metric, a large swathe of greenspace will be delivered at the Site and this in turn can be utilised to provide habitat enhancements/valuable habitat creation. It is anticipated that subject to the delivery of valuable habitats such as woodland, ponds, wildflower meadow and mixed scrub in place of low valuable temporary grass ley, a net gain in biodiversity can be delivered on-site.

4.0 Sensitive Scheme Design

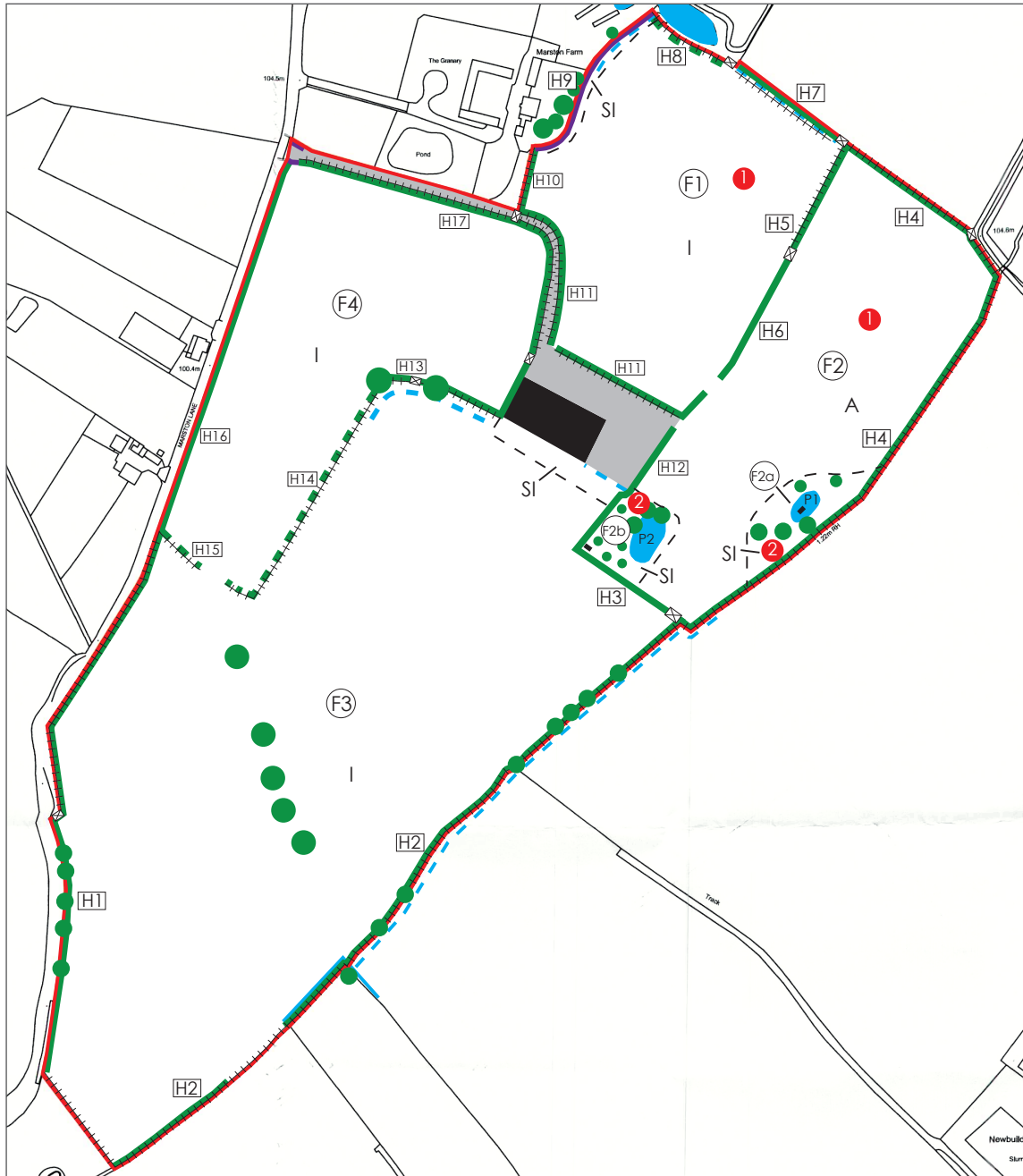
- 4.1 Conceptual development proposals have been designed sensitively to avoid impacts to important ecological features. Residential development is located in areas of lower ecological value, such as in areas of existing agricultural grassland.
- 4.2 Land to the centre of the Site, near to the line of trees at the centre of the Site has been retained as open greenspace and will therefore offer space for creation of new high-quality enhancements.
- 4.3 A green buffer has also been delivered along existing hedgerows. Wider green buffers are present along the north and east of the Site to provide a dispersal corridor for great crested newts, which are known to persist within ponds on-site and adjacent north and promote connectivity throughout the Site. The buffers will also provide green corridors for a range of wildlife, including bats, birds and invertebrates. New attenuation features on-site are set within open space and have potential to provide new aquatic opportunities for a range of invertebrates and aquatic wildlife. The location of new ponds will

provide steppingstone ponds between the known great crested newt population to the north, and aquatic habitat to the south.

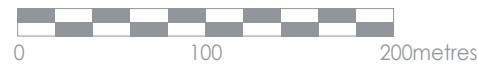
- 4.4 The sensitive layout seeks to retain the majority of hedgerows and promotes infill planting within existing gaps to strengthen features.
- 4.5 Opportunities for enhancement have been identified and will be delivered alongside proposals, including:
- Delivery of bat and bird boxes on retained mature trees or within the fabric of new dwellings
 - New aquatic creation to provide stepping stone ponds across the landscape, and new habitat for great crested newts
 - Strengthening of existing boundary features with infill planting of native species
 - Incorporation of native plants and those of wildlife importance into landscaping schemes to provide foraging opportunities for birds, bats and invertebrates
 - Provision of hedgehog gaps in new fencing to promote connectivity and dispersal corridors across the Site

5.0 Summary

- 5.1 Residential development at Marston Farm has the potential to retain and protect features of key ecological interest as well as delivering a suite of new enhancements to improve the ecological value of the Site, thereby contributing towards achieving a net gain in biodiversity. It is anticipated that subject to the retention of key ecological features and delivery of new high-quality habitats in place of agricultural grassland, it will be possible to achieve a net gain in Habitat and Hedgerow units.



	Site boundary		Intact hedgerow		Fence
	Improved grassland		Defunct hedgerow		Field reference
	Arable		Individual tree (indicative location)		Hedgerow reference
	Semi-improved grassland		Wall		Pond reference
	Pond		Buildings/structures		Target Note: 1. Brown hare sighting 2. Area with reptile potential
	Wet ditch		Hardstanding		
	Seasonally wet ditch		Gate		



	Project Land at Marston Farm, Stafford	Drawing No. CSA/4261/101	Rev -
	Drawing Title Habitats Plan	Scale Refer to scale	Drawn AP
	Client Vistry Group	Date March 2021	Checked AM

Appendix 4



Marston Farm, Staffordshire
Transport and Movement

On behalf of **Vistry Homes Ltd**

Vistry Group



Document Control Sheet

Project Name: Marston Farm, Staffordshire

Project Ref: 332210750/5501

Report Title: Transport and Movement

Doc Ref: 332210750 Marston Farm – Transport & Movement RevB

Date: October 2022

	Name	Position	Signature	Date
Prepared by:	[REDACTED]	Senior Transport Planner	MS	October 2022
Reviewed by:	[REDACTED]	Associate Transport Planner	MR	October 2022
Approved by:	[REDACTED]	Director Transport	DG	October 2022
For and on behalf of Stantec UK Limited				

Revision	Date	Description	Prepared	Reviewed	Approved
A	1/12/22	Address client comments	MS	MR	DG
B	8/12/22	Address client comments	MS	MR	DG

This report has been prepared by Stantec UK Limited ('Stantec') on behalf of its client to whom this report is addressed ('Client') in connection with the project described in this report and takes into account the Client's particular instructions and requirements. This report was prepared in accordance with the professional services appointment under which Stantec was appointed by its Client. This report is not intended for and should not be relied on by any third party (i.e. parties other than the Client). Stantec accepts no duty or responsibility (including in negligence) to any party other than the Client and disclaims all liability of any nature whatsoever to any such party in respect of this report.

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1 Introduction

1.1 Purpose of this report

- 1.1.1 As part of the Local Plan preferred options consultation, Vistry Homes Ltd are seeking to promote their site at Marston Farm, Staffordshire in the new Stafford Borough Local Plan.
- 1.1.2 This report has been prepared by Stantec UK Ltd (Stantec) to support the site's allocation, identifying the transport and movement opportunities of the site and how these opportunities can be delivered.

1.2 Site location

- 1.2.1 Located north of Stafford (see **Appendix A**), the site is situated within the district of Stafford and the county of Staffordshire.
- 1.2.2 The site comprises approximately 54.6 acres (22.09 ha) of farmland, including a large yard and buildings.
- 1.2.3 The aspiration for the site is to provide residential development with the potential of providing up to 450 homes with supporting infrastructure and open space.

1.3 Structure of this report

- 1.3.1 This report is structured as follows:
- **Section 2** presents the planning context, at the national and local level, within which the site is being promoted.
 - **Section 3** considers current and proposed transport infrastructure and connectivity in the vicinity of the site.
 - **Section 4** describes the accessibility of the site to local amenities.
 - **Section 5** considers the potential person trip generation of the site.
 - **Section 6** presents the access strategy for the site, considering the opportunities to promote sustainable travel.
 - **Section 7** presents a summary and conclusion to this report.

2 Planning context

2.1 National policy

National Planning Policy Framework (20 July 2021)

- 2.1.1 The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these should be applied, at the heart of which is a presumption in favour of sustainable development.
- 2.1.2 Paragraph 104 of the NPPF states that transport issues should be considered from the earliest stages of plan-making and development proposals, so that:
- a) the potential impacts of development on transport networks can be addressed;
 - b) opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;
 - c) opportunities to promote walking, cycling and public transport use are identified and pursued;
 - d) the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and
 - e) patterns of movement, streets, parking and other transport considerations are integral to the design of schemes and contribute to making high quality places.
- 2.1.3 Paragraph 105 of the NPPF states that significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making.
- 2.1.4 Paragraph 110 of the NPPF states that in assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:
- a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;
 - b) safe and suitable access to the site can be achieved for all users; and
 - c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and
 - d) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.
- 2.1.5 Furthermore, as stated in paragraph 111 of the NPPF, development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.

Planning Practice Guidance (PPG): Transport evidence bases in plan making and decision taking

- 2.1.6 Key baseline information for authorities is to understand the potential options for sites' to provide sustainable transport and transport networks to serve them.
- 2.1.7 In terms of quantifying the impact of proposed land allocations in the Local Plan on the transport system, it is necessary to provide an estimate of the person trips (for all types of transport) that are likely to be generated by it. This assessment is undertaken by the highway authority but, for the purposes of this report, we have provided our own high-level assessment in **Section 5**.

Net Zero Strategy: Build Back Greener (October 2021)

- 2.1.8 The UK Governments' Net Zero Strategy is a long-term plan for a transition that will take place over the next three decades.
- 2.1.9 The policies and proposals for transport in the Net Zero Strategy will:
- Support for up to 22,000 jobs in 2024 and up to 74,000 jobs in 2030.
 - Start to mobilise additional public and private investment of around £220 billion.
 - Remove all road emissions at the tailpipe.
- 2.1.10 Key policies that have an impact on developments sites are:
- £2 billion investment which will help enable half of journeys in towns and cities to be cycled or walked by 2030.
 - £3 billion to create integrated bus networks, more frequent services and bus lanes to speed journeys.
 - Transformation of local transport systems, with 4,000 new zero emission buses and the infrastructure to support them, and a net zero rail network by 2050, with the ambition to remove all diesel-only trains by 2040.

2.2 Local policy

Strategic Housing & Employment Land Availability Assessment (2019 Update)

- 2.2.1 The Marston Farm site is identified within the Strategic Housing & Employment Land Availability Assessment (Site ID MAR04) as a site that is '*potentially developable based on the compliance with Criteria C5 of the Local Plan and Paragraph 71 of the NPPF.*'

Stafford Borough Local Plan 2020-2040 - Issues and Options Consultation Document (February 2020)

- 2.2.2 The consultation document for the new Stafford Borough Local Plan echoes the emphasis on sustainable transport set out in the NPPF. Paragraph 12.1 of the consultation document sets out how sustainable travel can be promoted through:
- reducing the need to travel generally

- reducing the reliance on the private car for travel in urban areas
- encouraging more sustainable forms of transport (e.g. rail) for longer journeys, and
- the provision of safe walking and cycling options for shorter journeys.

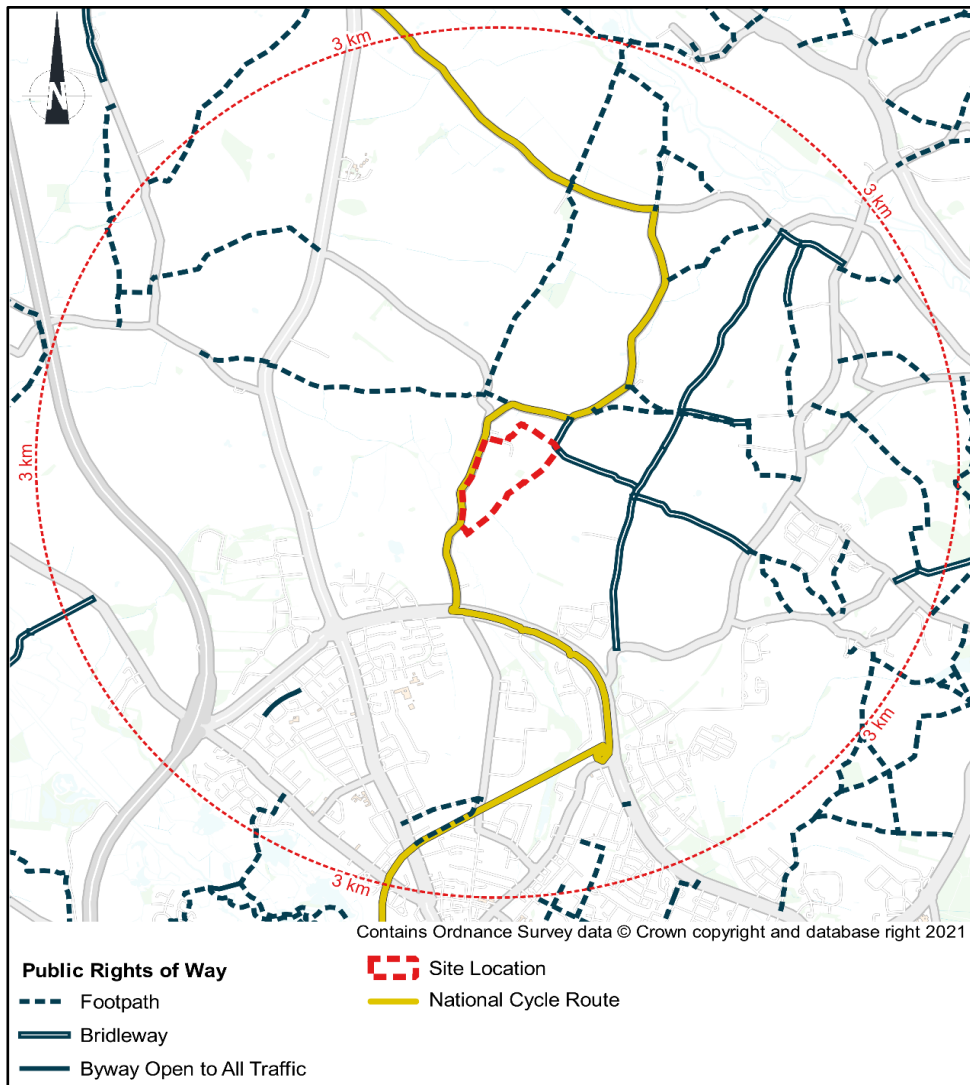
Stafford Borough Integrated Transport Strategy 2013 - 2031

- 2.2.3 The Stafford Borough Integrated Transport Strategy sets out the priority for spending on transport schemes and sets out planned schemes to be delivered.
- 2.2.4 Several improvements are proposed in the northern area of Stratford in the vicinity of the site. These are largely to support the committed development (3,100 new dwellings) in this area and include:
- Highway capacity improvements - A Local Distributor Road provided through the development sites together with junction and link improvements along Beaconside required for enhancing safety and capacity. Minimising the number of new junctions required to access the development sites is also essential. A Local Distributor Road would remove substantial levels of traffic from the A34 north of Redhill roundabout and along the northern section of Beaconside. However, delays would still be expected, particularly along sections of the A34 Stone Road and southern sections of Beaconside that would require further mitigation through junction improvements and sustainable transport.
 - Bus connectivity - A new bus service through the site will make use of the new local distributor and will be within easy walking distance for residents. Real time bus passenger information will be provided and bus priority on A34 Stone Road.
 - Enabling active travel - Local facilities will be required that are appropriate to the scale of the housing development and will be conveniently accessed by walking and cycling to internalise trips. High permeability within the site and walking and cycling connectivity to existing local facilities is essential.
 - Sustainable travel promotion - Workplace Travel Plans, sustainable travel initiatives targeted at local residents and implementation of School Travel Plans will be required to minimise car travel.
- 2.2.5 The proposed initiatives at the neighbouring developments will have benefits for the site as it provides transport improvements to the local area.

3 Transport infrastructure and connectivity

3.1 Active travel (walking and cycling)

- 3.1.1 A bridleway is located at the site's northeastern corner which runs northwards to Marston Lane and eastwards towards Kent's Barn Farm. The bridleway also connects with the bridleway running north to Enson and south to Sandon Road. Existing public rights of way are shown on **Figure 3.1**.
- 3.1.2 There are no footways along Marston Lane adjacent to the site's frontage but Marston Lane does form part of National Cycle Route 5 (also shown in **Figure 3.1**). This is a long-distance cycle route between Reading and north Wales via Oxford, the Midlands and Warrington. From the site, this cycle route can be used to provide a 15-minute cycle connection to Stafford town centre.



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Figure 3.1 – Active travel

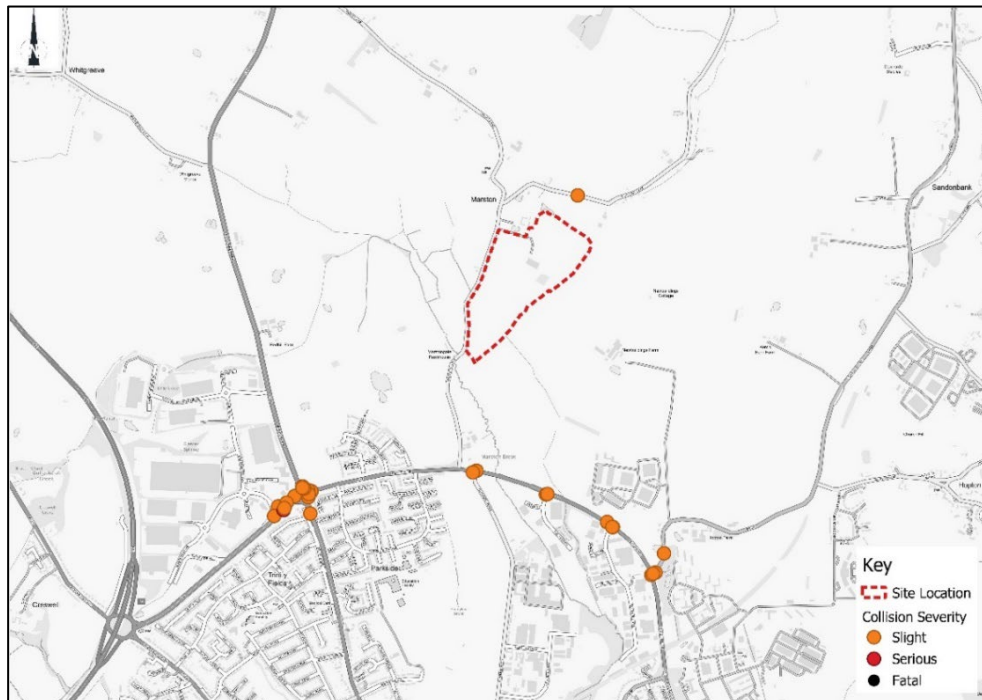
3.2 Access by public transport

- 3.2.1 Currently, the nearest bus stops are over a mile away from the site on the A34 and at residential development around Parkside Avenue to the south.
- 3.2.2 The 101 service operates from the stop on the A34 providing a 20-minute service between Stafford and Hanley (via Newcastle-under-Lyme and Stone). The 8/8A service operates from Parkside Avenue and provides a 15-minute service to Stafford town centre.

3.3 Marston Lane

- 3.3.1 The site is bounded on the western side by Marston Lane, which is a country lane with narrow sections that can only accommodate one vehicle passing at a time. The road is subject to the National Speed Limit of 60mph, reducing to 30mph approximately 120m south of the site as Marston Lane approaches the Miller Homes site.
- 3.3.2 Marston Lane is bound by hedges on both sides and there is no street lighting or footway for most of its length, except for the section to the south adjacent to the Miller Homes development.
- 3.3.3 An analysis of the personal injury collision records on Marston Lane and in the vicinity of the site was undertaken for the most recent 5-year period that data were available for.
- 3.3.4 Data were obtained from Staffordshire County Council for the period 2015-2020 (the latest period that data was available for at the time of analysis) and examined to determine whether there is a history of accidents in proximity of the site, such as on Marston Lane, and to identify any patterns or contributing factors to the accidents recorded. This is to determine if the proposed allocation will exacerbate existing problems and whether highway mitigation works or traffic management measures will be required to alleviate such problems.

- 3.3.5 **Figure 3.2** shows the location of the collisions that have occurred in the area near the site during this 5-year period.



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Figure 3.2 – Locations of recorded collisions

- 3.3.6 The data highlighted that no collisions were recorded along Marston Lane. However, two 'slight'¹ collisions occurred on the A513/Common Road junction and one 'slight' collision occurred on Marston Lane to the north of the site. The collisions at the A513/Common Road Junction were caused by a driver 'following too close' to the vehicle in the front, the other collision cause was unclassified. The collision on Marston Lane was caused by 'an animal in the carriageway.'
- 3.3.7 There is a smaller cluster of collisions occurring at the Stone Road/A513/A34 roundabout the west of the site. However, the causation factor of these collisions' lays, primarily, with the fault of the drivers and not the layout of the junction.
- 3.3.8 The *Staffordshire Integrated Transport Programme 2022-23* identifies that an A34 Corridor Study in Stafford is required, which will involve a review of the operation of signals and junctions along the A34 Lichfield Road (at the southern end of the town) to help reduce existing traffic delays and accommodate housing and employment growth within the town. An EAST appraisal and scheme justification along the corridor would need to consider highway resilience and sustainable transport, supported by appropriate traffic modelling.

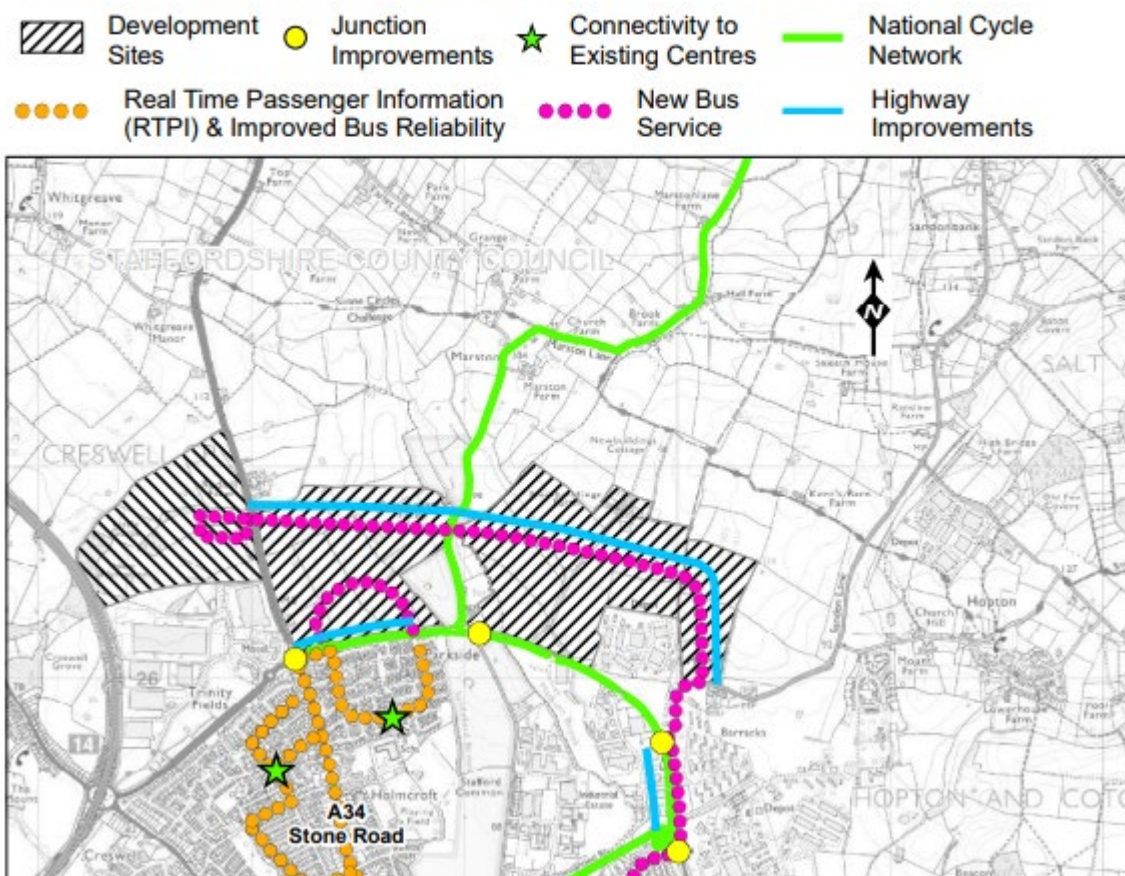
3.4 Planned improvements

- 3.4.1 The *Stafford Borough Integrated Transport Strategy 2013-2021* sets out schemes to provide a new distributor road and bus service to the north of Stafford which would bring access to public transport closer to the site (see **Figure 3.3**).

¹ One in which at least one person is slightly injured but no person is killed or seriously injured. DfT. Reported road casualties in Great Britain: notes, definitions, symbols and conventions (29 September 2022),

Appendix 2

Figure 2: Stafford Northern Access Improvements

Figure 3.3 – Extract of Appendix 2, Figure 2 of the *Stafford Borough Integrated Transport Strategy 2013-2021*

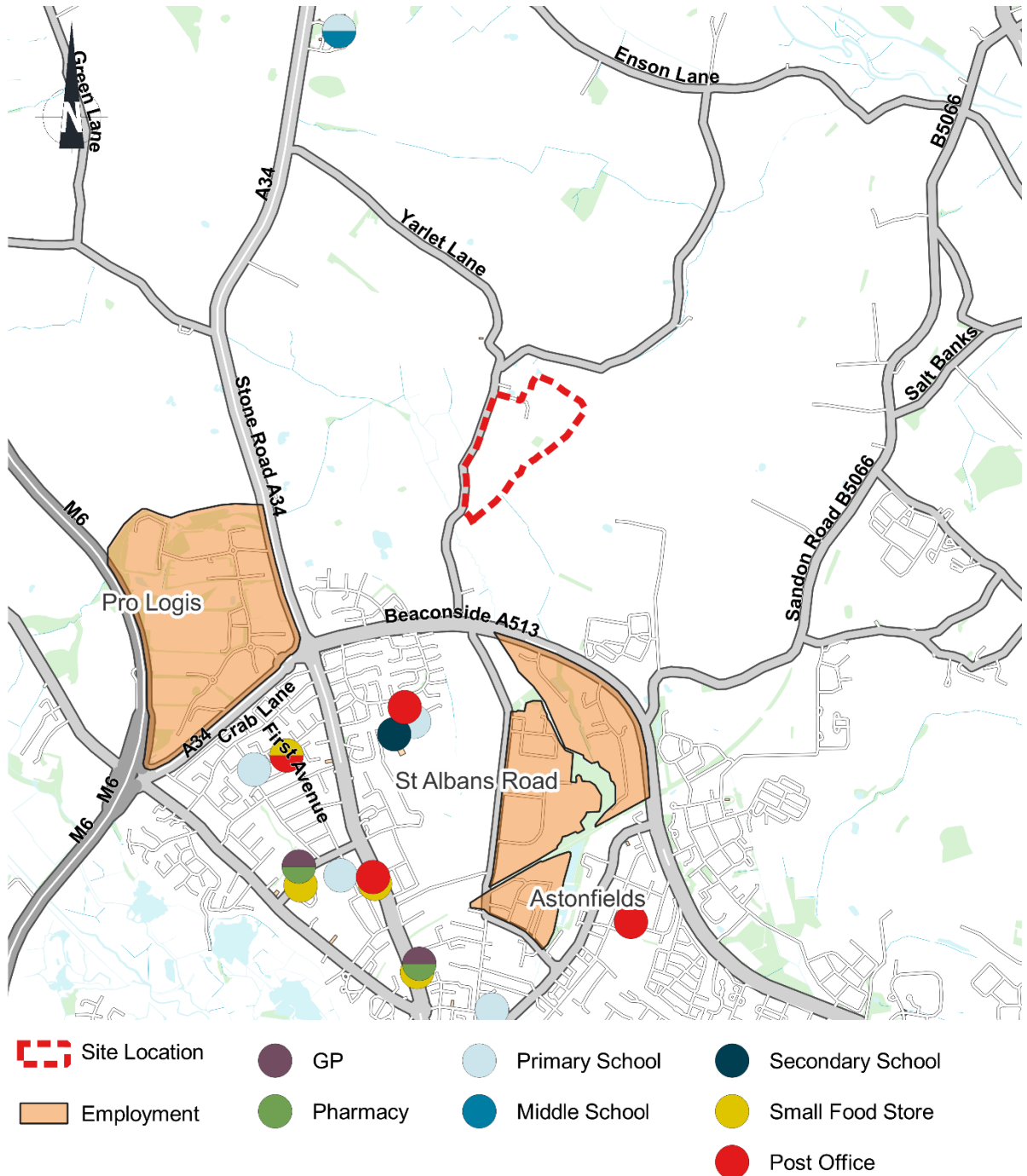
- 3.4.2 To improve highway capacity it is proposed to provide a Local Distributor Road through the development sites illustrated in **Figure 3.3** together with junction and link improvements along the A513 Beaconside to enhance safety and capacity.
- 3.4.3 This is supported by the proposals of planning application *16/25450/OUT Land North Of Beaconside Stafford* which includes for:
- A primary access road through the site, which would link the A34 Stone Road and the B5066 Sandon Road;
 - The creation of a four-arm roundabout at the junction of the A513 Beaconside and Common Road; and
- 3.4.4 Minimising the number of new junctions required to access the development sites is essential. A Local Distributor Road would remove substantial levels of traffic from the A34 north of Redhill roundabout and along the northern section of the A513 Beaconside. However, it is recognised by Staffordshire that delays would still be expected, particularly along sections of the A34 Stone Road and southern sections of the A513 Beaconside, that would require further mitigation through junction improvements and sustainable transport measures.
- 3.4.5 A new bus service was proposed in the *Integrated Transport Strategy* to make use of the new Local Distributor Road that will be within easy walking distance for residents and provide real time bus passenger information and bus priority on the A34 Stone Road. Planning application

16/25450/OUT Land North Of Beaconside Stafford indicates that new bus provision is likely to be on a north/south alignment from Stafford town centre, via an extension to service 8 and/or a new service routing via Sandon Road.

- 3.4.6 To enable active travel, local facilities will be required that are appropriate to the scale of the housing development and will be conveniently accessed by walking and cycling to internalise trips. High permeability and walking and cycling connectivity to existing local facilities is essential.
- 3.4.7 Furthermore, sustainable travel initiatives targeted at local residents (such as Travel Plans) and the implementation of School Travel Plans will be required to minimise car travel.

4 Access to local amenities

4.1.1 There are a range of local amenities south of the site (see **Figure 4.1**).



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Figure 4.1 – Local amenities

- 4.1.2 The IHT publication *Guidelines for providing for journeys on foot* (2000) suggests walking distances to destinations, replicated in **Table 4.1**, that are acceptable for pedestrians without a mobility impairment.

Table 4.1 – Acceptable walking distances

	Town centres	Commuting / schools / sight-seeing	Elsewhere
Desirable	200m	500m	400m
Acceptable	400m	1,000m	800m
Preferred maximum	800m	2,000m	1,200m

- 4.1.3 The CIHT publication *Planning for Walking* (2015) elaborates further, describing how walking neighbourhoods are typically characterised as having a range of facilities within 10 minutes' walking distance (around 800 metres).
- 4.1.4 *Planning for Walking* also describes how the attractiveness of a destination determines how far people will walk to get to it. For bus stops in residential areas, 400 metres has traditionally been regarded as a reasonable maximum in relevant guidance.
- 4.1.5 The report, *How far do people walk?* (2015), by WYG suggests that, when assessing the accessibility of a new development on foot, the 85th percentile distance (based on National Travel Survey datasets) should be used to estimate the distance up to which people are prepared to walk. The research indicates that the distance people are willing to walk as their main mode of travel is 1,950m (1.95km) and 800m to a bus stop.
- 4.1.6 In terms of cycling, the CIHT publication *Planning for Cycling* (2014) states that the majority of cycling trips are for short distances, with 80% being less than five miles (approx. 8km) and with 40% being less than two miles (approx. 3km). However, the majority of trips by all modes are also short distances (67% are less than five miles, and 38% are less than two miles). Therefore, the bicycle is a potential mode for many of these trips and, with electric bicycles currently being tested in many locations around the country, this has the potential to extend the range that can be cycled comfortably. Combined cycle-rail or cycle-bus journeys therefore offer an alternative to car travel for many longer trips.
- 4.1.7 However, the propensity to walk or cycle is not only influenced by distance but also the quality of the experience. In other words, people may be willing to walk or cycle further where their surroundings are more attractive, safe and stimulating and, therefore, the safety of routes (e.g., those with adequacy of surveillance, sight lines and appropriate lighting) as well as landscaping factors (such as indigenous planting or habitat creation) should always be considered in any designs.
- 4.1.8 With reference to **Figure 4.1**, **Table 4.2** summarises the key amenities in the vicinity of the site and their corresponding distances and journey times by foot, bicycle and bus.

Table 4.2 – Distances and journey times to local amenities

Amenity Type	Name	Distance from Site (km)	Journey Time (minutes)		
			Walking	Cycling	Bus
GP / Pharmacy	Holmcroft Surgery	3.1 km	37	10	31
Primary School	Parkside Primary School	1.7 km	21	5	-
Secondary School	Sir Graham Balfour School	2.6 km	32	29	8
Small Food Store	Co-op (with Post Office)	2.5 km	30	8	27
Post Office					
Employment	Tollgate	1.9 km	22	6	-
	St Albans Road	2.2 km	26	7	-
	Pro Logis	2.6 km	32	9	-

- 4.1.9 **Table 4.2** demonstrates that the existing and committed local amenities are all within a reasonable cycle journey time of the site.
- 4.1.10 Of key significance to the proximity and connectivity to local amenities, and services, going forward is Policy Stafford 2 – North of Stafford of the *The Plan for Stafford Borough 2011-2031 (adopted 19 June 2014)* – i.e. the Local Plan for Stafford.
- 4.1.11 This Strategic Development Location (SDL) lies adjacent to the southern and eastern boundary of the site and will deliver approximately 3,100 new homes, at least 36ha of employment and education provision.
- 4.1.12 A masterplan has been prepared by the developers involved in the development of the North of Stafford SDL (*North of Stafford Strategic Development Location Masterplan Document, November 2016*) to promote the delivery of a comprehensive, sustainable, mixed-use development on the land.
- 4.1.13 The Masterplan Document identifies that the design principles to access services and facilities will involve:
- Integration of the development into the existing movement network, including new public transport provision with bus stops located within easy walking distance of all the new dwellings;
 - Convenient, safe and direct access for all residents to the existing and proposed local services and facilities including schools, retail, community uses and employment opportunities;
 - Provision of new access points into the development forming part of a permeable network of streets, which assists in dispersing traffic (vehicular and pedestrian);
 - Enhancement and extension of the existing public rights of way network as an integral part of the development, particularly facilitating access to the surrounding countryside and the existing urban areas;

- Maximisation of the opportunities for alternative modes of transport to the car, particularly walking, cycling and bus travel;
- Creation of a clear movement hierarchy providing easily recognisable routes which balances the street as a space alongside its function as a movement corridor; and
- Maximisation of the connections to Stafford town centre, via sustainable routes for pedestrians, cyclists and public transport users.

4.1.14 These principles are integral to the subsequent planning application *16/25450/OUT Land North Of Beaconside Stafford*.

5 Person trip generation

- 5.1.1 The Residential/Houses Privately Owned land uses category within the TRICS database system has been interrogated in order to estimate the volume of person trips that could be generated by residential development at the site and which would be considered in greater detail as the site is taken forward for development.
- 5.1.2 In order to ensure the person trip rates used are robust and represent similar locational characteristics to the site, e.g. accessibility of the site to bus provision, the following filters have been applied:
- Included surveys of sites in England (excluding Greater London)
 - Included surveys conducted on weekdays, and
 - Included surveys that have a Travel Plan.
- 5.1.3 The person trip rates derived are shown in **Appendix B** and the trip rates and resultant person trip generation for a maximum development of 450 homes is presented in **Table 5.1**

Table 5.1 – Person trip generation

	Morning Peak (8am-9am)			Evening Peak (5pm-6pm)		
	Inbound	Outbound	Two Way	Inbound	Outbound	Two Way
Person Trip Rate	0.198	0.766	0.964	0.677	0.323	1.000
Person Trip Generation (450 homes)	89	345	434	305	145	450

- 5.1.4 To identify the potential mode split of development trips, 2011 Census 'Method of Travel to Work' data has been examined. **Table 5.2** provides the mode split for the Stafford 006 Middle Super Output Area (MSOA) within which the site is located.

Table 5.2 – Mode share

Method of Travel to Work	Number of People	Percentage of People
Car Driver / Taxi	2,971	78%
Car Passenger	313	8%
Motorcycle	40	1%
Train	24	1%
Bus	77	2%
Cycle	144	4%
Foot	242	6%
Other	78	2%
Total	3812	100%

- 5.1.5 The mode split in **Table 5.2** has been applied to the person trip generation in **Table 5.1**. The resulting person trip generation for each mode of travel is shown in **Table 5.3**.

Table 5.3 – Multi modal trip generation

	Morning Peak (8am-9am)			Evening Peak (5pm-6pm)		
	Inbound	Outbound	Two Way	Inbound	Outbound	Two Way
Car Driver/ Taxi	69	269	338	238	113	351
Car Passenger	7	28	35	24	12	36
Motorcycle	1	3	4	3	1	5
Train	1	3	4	3	1	5
Bus	2	7	9	6	3	9
Cycle	4	14	17	12	6	18
Foot	5	21	26	18	9	27
Other	2	7	9	6	3	9
Total	89	345	434	305	145	450

Note: Subject to rounding/

5.1.6 **Table 5.3** highlights that for a maximum development of 450 homes:

- During the morning peak, 373 of the 434 two-way person trips generated would be vehicle trips.
- During the evening peak, 387 of the 450 two-way person trips generated would be vehicle trips.

5.1.7 It should be noted that these figures do not take into account the likely reduction in vehicle trips as result of the proposals to improve infrastructure and connectivity in the area, future on-site travel planning measures and the proximity to food retail, local shops, a health centre and schools proposed on *Land North Of Beaconside Stafford*.

6 Access strategy

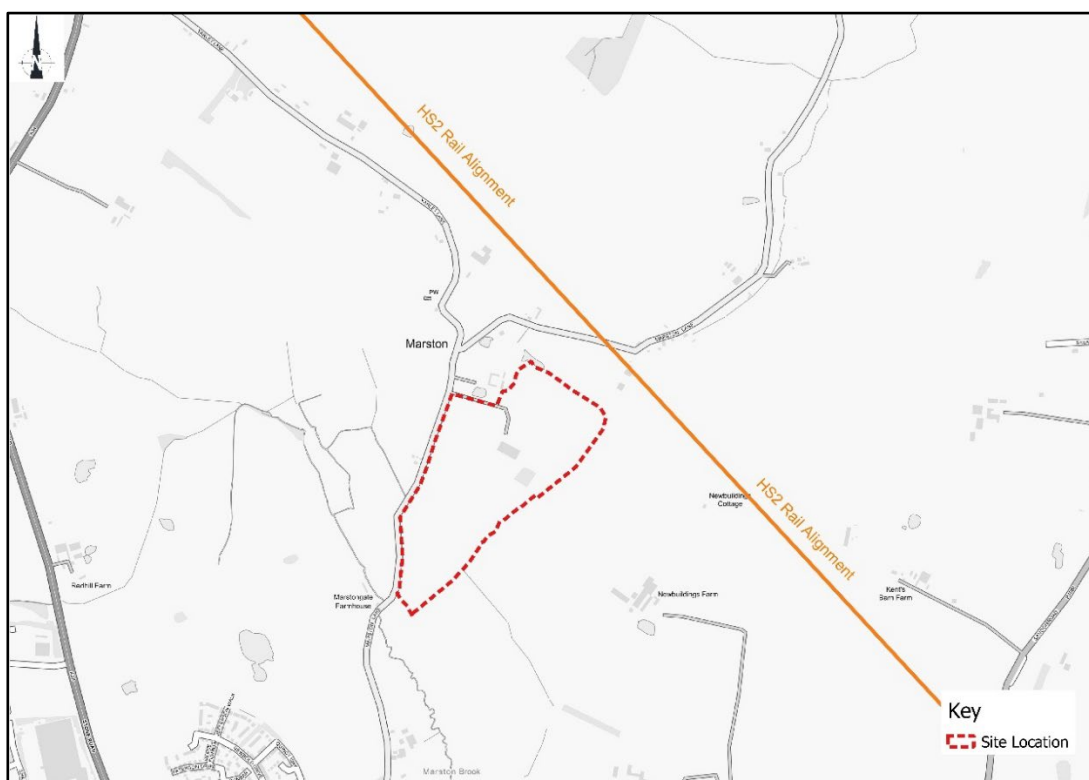
- 6.1.1 This section reviews the potential site access options for vehicles, pedestrians, cycles and buses. It considers design options in accordance with local and national guidance and appropriate to the local context.
- 6.1.2 The *Staffordshire Residential Design Guide (2000)* remains the most up to date guidance for determining the dimensions and layout of access to Marston Farm. The intention of the design guide is to provide information and advice to help everyone involved in the design of new residential developments in Staffordshire to create residential environments that are visually attractive, safe, convenient, secure and economical in both construction and maintenance.
- 6.1.3 The design guide outlines key geometry and technical standards for residential developments which are typically dependent on the number of dwellings. It is proposed that Marston Farm could deliver up to 450 homes, which would fall under the requirements for a Collector Road.
- 6.1.4 **Table 6.1** outlines the technical standards for any proposed accesses into the development based on this assumption.

Table 6.1 – Collector Road Technical Standards

Category	Technical Standard (minimum)
Maximum number of dwellings served	500 (+250 with each additional access)
Carriageway Width	6.0m (6.5m if a bus route)
Design Speed	40kph (25mph)
Footway Width	1.8m
Minimum Junction Spacing (opposite)	40.0m
Minimum Junction Spacing (adjacent)	80.0m
Minimum Kerb Radius	10.0m
Verge width *dependent on tree planting requirements	3.0m to 1.0m

- 6.1.5 To provide access to up to 450 homes, two vehicular access points in the form of priority T-junctions are proposed via Marston Lane; one at the southern end of the site and one at the northern end (see **Appendix C**).
- 6.1.6 Marston Lane in the vicinity of the site is currently subject to the National Speed Limit of 60mph, reducing to 30mph approximately 120m south of the site as Marston Lane approaches the Miller Homes site. It is proposed that this 30mph limit is extended along the site frontage to the northern site access where visibility splays of 2.4m x 40.0m, in accordance with *Manual for Streets* guidance for a 30mph road, can be achieved. The two new T-junctions would also have a carriageway width of 6.5m to accommodate buses and a 10m junction radii which will allow for refuse vehicle and bus access.

- 6.1.7 The widening of Marston Lane, between the two new access junctions, would be required to a width of 6.5m which, in accordance with the *Staffordshire Residential Design Guide*, would also be suitable for use by buses. Furthermore, where required, localised traffic calming, such as chicanes or build-outs, could be provided on Marston Lane – thus narrowing the carriageway to one-way movements over short distances.
- 6.1.8 Pedestrian and cycle infrastructure, which is essential to provide the desired connectivity and meet standards set out *Local Transport Note (LTN) 1/20 Cycle Infrastructure Design (July 2020)*, can be provided within the site boundary, where feasible, rather than run alongside the carriageway, to preserve any remaining hedgerows and trees that need to be retained.
- 6.1.9 Between the southern site access and the Miller Homes development, the extent of highway land is very constrained; approximately 7.0m at the narrowest, including the existing carriageway which is only 4.0m wide in places. In order to provide access for vehicles, pedestrians and cyclists, and subject to detailed design and testing, it is proposed to narrow the carriageway to one lane of 3.3m width for a length of approximately 170m with signals at either end of the narrowing. This will allow for a 3.0m shared foot/cycleway alongside the carriageway to connect the proposed southern site access to the existing 3.0m shared foot/cycleway adjacent to the Miller Homes development.
- 6.1.10 Consideration has also been given to the implications of the three passing bays that are proposed along Marston Lane as part of works associated with development of the Phase 2a rail line (West Midlands to Crewe) of High Speed Two (HS2); the alignment of which runs north of the site (see **Figure 6.1**).



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Figure 6.1 – Proximity of HS2 to the site

- 6.1.11 The passing bays would have been developed on the presumption of Marston Lane remaining in its current form and, therefore, the bays follow the form of the existing carriageway. The need for HS2 to have passing bays would be negated by our proposed widening of Marston

Lane, given that the carriageway width proposed would be wide enough to accommodate HS2 traffic.

- 6.1.12 It should be noted that all proposed carriageway widening and foot/cycleway construction can be undertaken within land under the control of the highway authority or the client.

7 Summary and conclusion

7.1 Summary

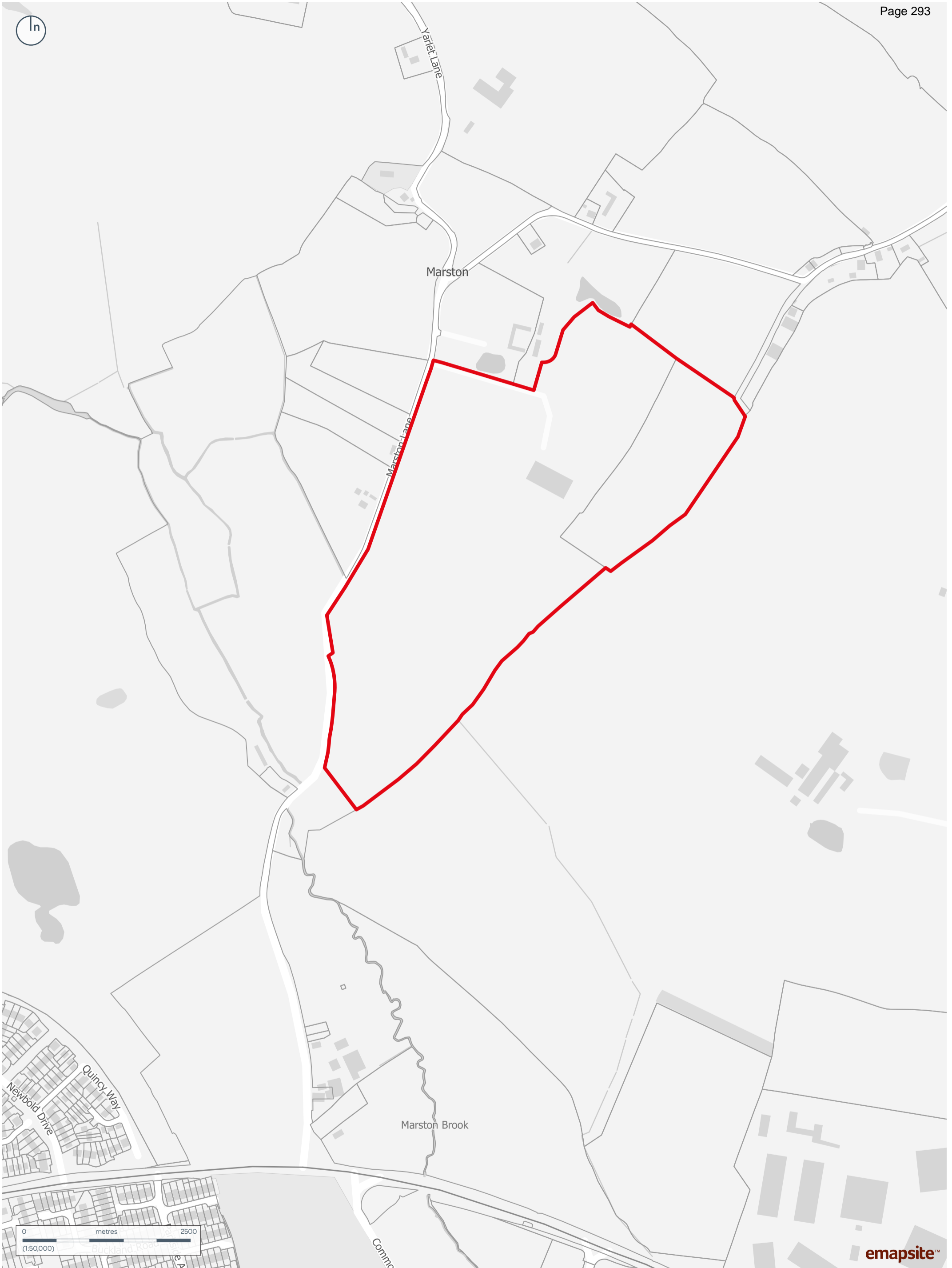
- 7.1.1 This report has been prepared by Stantec UK Ltd (Stantec), on behalf of Vistry Homes Ltd, to support the allocation of the site at Marston Farm, Staffordshire in the new Stafford Borough Local Plan.
- 7.1.2 Currently comprising approximately 54.6 acres (22.09 ha) of farmland, including a large yard and buildings, the aspiration for the site is to provide up to 450 homes with supporting infrastructure and open space.
- 7.1.3 In line with national and local planning policy, this report has identified the opportunities to promote walking, cycling and public transport use from current and proposed transport infrastructure in the area. As has been discussed herein, the site is ideally located where it can be made sustainable, safe and suitable access can be achieved for all users and where transport considerations reflect national and local design guidance.
- 7.1.4 The site is situated adjacent to National Cycle Route 5, which, via Marston Lane, provide connectivity between the site and Stafford, to the south.
- 7.1.5 Analysis of personal injury collision records showed that none were recorded along Marston Lane between the site and the A513 for the most recent 5-year period that data were available for (2015-2020).
- 7.1.6 Key to the promotion of the site is the integration with the schemes that are proposed in the *Stafford Borough Integrated Transport Strategy 2013-2021*, which include a new Local Distributor Road which would also be used by a new bus service. Junction and link improvements along Beaconside are proposed as well as the provision of new local facilities to enable more active travel and sustainable travel initiatives aimed at minimising car travel.
- 7.1.7 There are a range of local amenities south of the site that are all within a reasonable cycle journey time. Of key significance to the proximity and connectivity to local amenities, and services, going forward is Policy Stafford 2 – North of Stafford of the *The Plan for Stafford Borough 2011-2031 (adopted 19 June 2014)*. This Strategic Development Location (SDL) lies adjacent to the southern and eastern boundary of the site and will deliver approximately 3,100 new homes, at least 36ha of employment and education provision. A masterplan, and subsequent planning application (*16/25450/OUT Land North Of Beaconside Stafford*) has been prepared by the developers involved in its development to promote the delivery of a comprehensive, sustainable, mixed-use development that will involve, *inter alia*, providing new bus services and convenient, safe and direct accesses for all residents to existing and proposed local services and facilities, enhancing and extending the existing public rights of way network, maximising the opportunities for walking, cycling and bus travel and connections to Stafford town centre, via sustainable routes, for pedestrians, cyclists and public transport users.
- 7.1.8 Consideration of the potential person trip generation of a 450-home development at Marston Farm indicates that the site is estimated to generate 434 two-way person trips during a weekday morning peak hour and 450 during a weekday evening peak hour. However, these figures do not take into account the likely reduction in vehicle trips as result of the proposals to improve infrastructure and connectivity in the area, future on-site travel planning measures and the proximity to food retail, local shops, a health centre and schools proposed on *Land North Of Beaconside Stafford*.

- 7.1.9 To provide access to up to 450 homes, two vehicular access points in the form of priority T-junctions are proposed via Marston Lane; one at the southern end of the site and one at the northern end.
- 7.1.10 Marston Lane in the vicinity of the site is currently subject to the National Speed Limit of 60mph and we propose that it is reduced to 30mph along the site frontage in order that visibility splays of 2.4m x 40.0m, in accordance with *Manual for Streets* guidance, can be achieved. The two new T-junctions would also have a carriageway width of 6.5m to accommodate buses and a 10m junction radii which will allow for refuse vehicle and bus access.
- 7.1.11 The widening of Marston Lane, between the two new access junctions, would be required to a width of 6.5m which would also be suitable for use by buses. Furthermore, localised traffic calming, such as chicanes or build-outs, could also be provided on Marston Lane if required.
- 7.1.12 Pedestrian and cycle infrastructure, which is essential to provide the desired connectivity and meet design standards, can be provided within the site boundary. Between the southern site access and the Miller Homes development, however, the extent of highway land is very constrained. In order to provide access for vehicles, pedestrians and cyclists and, subject to detailed design and testing, it is proposed to narrow the carriageway to one lane of 3.3m width for a length of approximately 170m with signals at either end of the narrowing. This will allow for a 3.0m shared foot/cycleway alongside the carriageway to connect the proposed southern site access to the existing 3.0m shared foot/cycleway adjacent to the Miller Homes development.
- 7.1.13 The implications of the three passing bays that are proposed along Marston Lane as part of works associated with development of the Phase 2a rail line (West Midlands to Crewe) of High Speed Two (HS2) have also been considered. The passing bays would have been developed on the presumption of Marston Lane remaining in its current form and, therefore, the bays follow the form of the existing carriageway. The need for HS2 to have passing bays would be negated by our proposed widening of Marston Lane given that the carriageway would be wide enough to accommodate HS2 traffic.
- 7.1.14 It should be noted that all proposed carriageway widening and foot/cycleway construction can be undertaken within land under the control of the highway authority or the client.

7.2 Conclusion

- 7.2.1 This report has presented a review of transport and movement in respect of the promotion of Marston Farm as a development allocation in the Stafford Borough Local Plan, from which it is evident that the site is ideally placed to take advantage of its proximity to a national cycle route, proposed local integrated transport schemes and the future development of the North of Stafford SDL.
- 7.2.2 Two accesses to the site, in the form of priority T-junctions, can be achieved off Marston Lane in addition to a 3.0m shared foot/cycleway that could connect with the existing 3.0m shared foot/cycleway adjacent to the Miller Homes development further south.
- 7.2.3 In conclusion, the site is considered an appropriate location for residential development that can be supported by travel demand management measures and travel planning initiatives aimed at encouraging travel to and from the site by sustainable modes.

Appendix A Site location



emapsite™

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 Site Boundary

CLIENT Vistry Homes Limited

PROJECT Land at Marston Farm, Stafford (VISQ3000)

DRAWING: Site Location Plan

PROJECT NO. VISQ3000	STATUS Final
DRAWING NO. 10_	SCALE 1:5000 @ A3
REVISION 00	DATE April 2020
	CHECKED BY ID

Appendix B Person trip generation

Calculation Reference: AUDIT-706706-210713-0708

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : A - HOUSES PRIVATELY OWNED
 MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	1 days
	HF HERTFORDSHIRE	1 days
	KC KENT	2 days
	WS WEST SUSSEX	1 days
03	SOUTH WEST	
	DV DEVON	1 days
04	EAST ANGLIA	
	NF NORFOLK	1 days
06	WEST MIDLANDS	
	ST STAFFORDSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NE NORTH EAST LINCOLNSHIRE	1 days
13	MUNSTER	
	WA WATERFORD	1 days
16	ULSTER (REPUBLIC OF IRELAND)	
	DN DONEGAL	1 days
17	ULSTER (NORTHERN IRELAND)	
	AN ANTRIM	2 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
 Actual Range: 116 to 432 (units:)
 Range Selected by User: 100 to 700 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 08/10/20

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	3 days
Tuesday	2 days
Wednesday	5 days
Thursday	1 days
Friday	2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	13 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	4
Edge of Town	9

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3 13 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	1 days
5,001 to 10,000	3 days
10,001 to 15,000	6 days
20,001 to 25,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	5 days
50,001 to 75,000	4 days
75,001 to 100,000	4 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	9 days
1.6 to 2.0	2 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	3 days
No	10 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	13 days
-----------------	---------

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	AN-03-A-08	HOUSES & FLATS	ANTRIM
	BALLINDERRY ROAD		
	LISBURN		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	204	
	Survey date: TUESDAY	29/10/13	Survey Type: MANUAL
2	AN-03-A-09	DETACHED & SEMI-DETACHED	ANTRIM
	SLOEFIELD DRIVE		
	CARRICKFERGUS		
	Edge of Town		
	No Sub Category		
	Total No of Dwellings:	151	
	Survey date: WEDNESDAY	12/10/16	Survey Type: MANUAL
3	DN-03-A-05	DETACHED/SEMI-DETACHED	DONEGAL
	GORTLEE ROAD		
	LETTERKENNY		
	GORTLEE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	146	
	Survey date: WEDNESDAY	03/09/14	Survey Type: MANUAL
4	DV-03-A-02	HOUSES & BUNGALOWS	DEVON
	MILLHEAD ROAD		
	HONITON		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	116	
	Survey date: FRIDAY	25/09/15	Survey Type: MANUAL
5	ES-03-A-04	MIXED HOUSES & FLATS	EAST SUSSEX
	NEW LYDD ROAD		
	CAMBER		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	134	
	Survey date: FRIDAY	15/07/16	Survey Type: MANUAL
6	HF-03-A-03	MIXED HOUSES	HERTFORDSHIRE
	HARE STREET ROAD		
	BUNTINGFORD		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	160	
	Survey date: MONDAY	08/07/19	Survey Type: MANUAL
7	KC-03-A-06	MIXED HOUSES & FLATS	KENT
	MARGATE ROAD		
	HERNE BAY		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	363	
	Survey date: WEDNESDAY	27/09/17	Survey Type: MANUAL
8	KC-03-A-07	MIXED HOUSES	KENT
	RECVLVER ROAD		
	HERNE BAY		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	288	
	Survey date: WEDNESDAY	27/09/17	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

9	NE-03-A-02 HANOVER WALK SCUNTHORPE	SEMI DETACHED & DETACHED		NORTH EAST LINCOLNSHIRE
	Edge of Town No Sub Category Total No of Dwellings:		432	
	Survey date: MONDAY		12/05/14	Survey Type: MANUAL
10	NF-03-A-06 BEAUFORT WAY GREAT YARMOUTH BRADWELL	MIXED HOUSES		NORFOLK
	Edge of Town Residential Zone Total No of Dwellings:		275	
	Survey date: MONDAY		23/09/19	Survey Type: MANUAL
11	ST-03-A-07 BEACONSIDE STAFFORD MARSTON GATE	DETACHED & SEMI-DETACHED		STAFFORDSHIRE
	Edge of Town Residential Zone Total No of Dwellings:		248	
	Survey date: WEDNESDAY		22/11/17	Survey Type: MANUAL
12	WA-03-A-04 MAYPARK LANE WATERFORD	DETACHED		WATERFORD
	Edge of Town Residential Zone Total No of Dwellings:		280	
	Survey date: TUESDAY		24/06/14	Survey Type: MANUAL
13	WS-03-A-04 HILLS FARM LANE HORSHAM BROADBRIDGE HEATH	MIXED HOUSES		WEST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings:		151	
	Survey date: THURSDAY		11/12/14	Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	13	227	0.069	13	227	0.254	13	227	0.323
08:00 - 09:00	13	227	0.134	13	227	0.395	13	227	0.529
09:00 - 10:00	13	227	0.150	13	227	0.186	13	227	0.336
10:00 - 11:00	13	227	0.132	13	227	0.171	13	227	0.303
11:00 - 12:00	13	227	0.125	13	227	0.153	13	227	0.278
12:00 - 13:00	13	227	0.184	13	227	0.169	13	227	0.353
13:00 - 14:00	13	227	0.174	13	227	0.176	13	227	0.350
14:00 - 15:00	13	227	0.204	13	227	0.206	13	227	0.410
15:00 - 16:00	13	227	0.287	13	227	0.186	13	227	0.473
16:00 - 17:00	13	227	0.296	13	227	0.184	13	227	0.480
17:00 - 18:00	13	227	0.381	13	227	0.195	13	227	0.576
18:00 - 19:00	13	227	0.304	13	227	0.220	13	227	0.524
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.440			2.495			4.935

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

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Parameter summary

Trip rate parameter range selected:	116 - 432 (units:)
Survey date range:	01/01/13 - 08/10/20
Number of weekdays (Monday-Friday):	13
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TAXIS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	13	227	0.001	13	227	0.001	13	227	0.002
08:00 - 09:00	13	227	0.004	13	227	0.003	13	227	0.007
09:00 - 10:00	13	227	0.003	13	227	0.002	13	227	0.005
10:00 - 11:00	13	227	0.002	13	227	0.002	13	227	0.004
11:00 - 12:00	13	227	0.004	13	227	0.003	13	227	0.007
12:00 - 13:00	13	227	0.002	13	227	0.002	13	227	0.004
13:00 - 14:00	13	227	0.002	13	227	0.001	13	227	0.003
14:00 - 15:00	13	227	0.002	13	227	0.003	13	227	0.005
15:00 - 16:00	13	227	0.005	13	227	0.003	13	227	0.008
16:00 - 17:00	13	227	0.002	13	227	0.003	13	227	0.005
17:00 - 18:00	13	227	0.001	13	227	0.000	13	227	0.001
18:00 - 19:00	13	227	0.002	13	227	0.003	13	227	0.005
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.030			0.026			0.056

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
 MULTI-MODAL OGVS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	13	227	0.002	13	227	0.001	13	227	0.003
08:00 - 09:00	13	227	0.003	13	227	0.003	13	227	0.006
09:00 - 10:00	13	227	0.004	13	227	0.002	13	227	0.006
10:00 - 11:00	13	227	0.003	13	227	0.004	13	227	0.007
11:00 - 12:00	13	227	0.002	13	227	0.001	13	227	0.003
12:00 - 13:00	13	227	0.003	13	227	0.005	13	227	0.008
13:00 - 14:00	13	227	0.002	13	227	0.001	13	227	0.003
14:00 - 15:00	13	227	0.003	13	227	0.003	13	227	0.006
15:00 - 16:00	13	227	0.003	13	227	0.003	13	227	0.006
16:00 - 17:00	13	227	0.003	13	227	0.001	13	227	0.004
17:00 - 18:00	13	227	0.002	13	227	0.001	13	227	0.003
18:00 - 19:00	13	227	0.001	13	227	0.002	13	227	0.003
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.031			0.027			0.058

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
 MULTI-MODAL PSVS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	13	227	0.000	13	227	0.000	13	227	0.000
08:00 - 09:00	13	227	0.003	13	227	0.003	13	227	0.006
09:00 - 10:00	13	227	0.000	13	227	0.000	13	227	0.000
10:00 - 11:00	13	227	0.000	13	227	0.000	13	227	0.000
11:00 - 12:00	13	227	0.000	13	227	0.000	13	227	0.000
12:00 - 13:00	13	227	0.000	13	227	0.000	13	227	0.000
13:00 - 14:00	13	227	0.000	13	227	0.000	13	227	0.000
14:00 - 15:00	13	227	0.001	13	227	0.001	13	227	0.002
15:00 - 16:00	13	227	0.002	13	227	0.002	13	227	0.004
16:00 - 17:00	13	227	0.000	13	227	0.000	13	227	0.000
17:00 - 18:00	13	227	0.000	13	227	0.000	13	227	0.000
18:00 - 19:00	13	227	0.000	13	227	0.000	13	227	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.006			0.006			0.012

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
 MULTI-MODAL CYCLISTS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	13	227	0.003	13	227	0.004	13	227	0.007
08:00 - 09:00	13	227	0.003	13	227	0.010	13	227	0.013
09:00 - 10:00	13	227	0.001	13	227	0.002	13	227	0.003
10:00 - 11:00	13	227	0.001	13	227	0.004	13	227	0.005
11:00 - 12:00	13	227	0.002	13	227	0.001	13	227	0.003
12:00 - 13:00	13	227	0.003	13	227	0.003	13	227	0.006
13:00 - 14:00	13	227	0.002	13	227	0.002	13	227	0.004
14:00 - 15:00	13	227	0.002	13	227	0.002	13	227	0.004
15:00 - 16:00	13	227	0.005	13	227	0.004	13	227	0.009
16:00 - 17:00	13	227	0.006	13	227	0.005	13	227	0.011
17:00 - 18:00	13	227	0.007	13	227	0.005	13	227	0.012
18:00 - 19:00	13	227	0.002	13	227	0.003	13	227	0.005
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.037			0.045			0.082

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
 MULTI-MODAL VEHICLE OCCUPANTS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	13	227	0.086	13	227	0.402	13	227	0.488
08:00 - 09:00	13	227	0.177	13	227	0.690	13	227	0.867
09:00 - 10:00	13	227	0.195	13	227	0.286	13	227	0.481
10:00 - 11:00	13	227	0.173	13	227	0.251	13	227	0.424
11:00 - 12:00	13	227	0.170	13	227	0.233	13	227	0.403
12:00 - 13:00	13	227	0.259	13	227	0.245	13	227	0.504
13:00 - 14:00	13	227	0.254	13	227	0.256	13	227	0.510
14:00 - 15:00	13	227	0.297	13	227	0.300	13	227	0.597
15:00 - 16:00	13	227	0.489	13	227	0.276	13	227	0.765
16:00 - 17:00	13	227	0.515	13	227	0.279	13	227	0.794
17:00 - 18:00	13	227	0.617	13	227	0.291	13	227	0.908
18:00 - 19:00	13	227	0.497	13	227	0.347	13	227	0.844
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.729			3.856			7.585

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL PEDESTRIANS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	13	227	0.011	13	227	0.021	13	227	0.032
08:00 - 09:00	13	227	0.017	13	227	0.038	13	227	0.055
09:00 - 10:00	13	227	0.024	13	227	0.034	13	227	0.058
10:00 - 11:00	13	227	0.031	13	227	0.035	13	227	0.066
11:00 - 12:00	13	227	0.022	13	227	0.025	13	227	0.047
12:00 - 13:00	13	227	0.026	13	227	0.022	13	227	0.048
13:00 - 14:00	13	227	0.030	13	227	0.025	13	227	0.055
14:00 - 15:00	13	227	0.030	13	227	0.033	13	227	0.063
15:00 - 16:00	13	227	0.046	13	227	0.037	13	227	0.083
16:00 - 17:00	13	227	0.052	13	227	0.030	13	227	0.082
17:00 - 18:00	13	227	0.041	13	227	0.024	13	227	0.065
18:00 - 19:00	13	227	0.031	13	227	0.043	13	227	0.074
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.361			0.367			0.728

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
 MULTI-MODAL BUS/TRAM PASSENGERS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	13	227	0.000	13	227	0.002	13	227	0.002
08:00 - 09:00	13	227	0.001	13	227	0.020	13	227	0.021
09:00 - 10:00	13	227	0.001	13	227	0.007	13	227	0.008
10:00 - 11:00	13	227	0.001	13	227	0.001	13	227	0.002
11:00 - 12:00	13	227	0.002	13	227	0.003	13	227	0.005
12:00 - 13:00	13	227	0.002	13	227	0.002	13	227	0.004
13:00 - 14:00	13	227	0.003	13	227	0.003	13	227	0.006
14:00 - 15:00	13	227	0.001	13	227	0.003	13	227	0.004
15:00 - 16:00	13	227	0.016	13	227	0.006	13	227	0.022
16:00 - 17:00	13	227	0.008	13	227	0.004	13	227	0.012
17:00 - 18:00	13	227	0.006	13	227	0.002	13	227	0.008
18:00 - 19:00	13	227	0.011	13	227	0.004	13	227	0.015
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.052			0.057			0.109

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
 MULTI-MODAL TOTAL RAIL PASSENGERS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	13	227	0.000	13	227	0.004	13	227	0.004
08:00 - 09:00	13	227	0.000	13	227	0.005	13	227	0.005
09:00 - 10:00	13	227	0.000	13	227	0.002	13	227	0.002
10:00 - 11:00	13	227	0.000	13	227	0.001	13	227	0.001
11:00 - 12:00	13	227	0.000	13	227	0.001	13	227	0.001
12:00 - 13:00	13	227	0.000	13	227	0.001	13	227	0.001
13:00 - 14:00	13	227	0.001	13	227	0.000	13	227	0.001
14:00 - 15:00	13	227	0.000	13	227	0.000	13	227	0.000
15:00 - 16:00	13	227	0.003	13	227	0.001	13	227	0.004
16:00 - 17:00	13	227	0.002	13	227	0.000	13	227	0.002
17:00 - 18:00	13	227	0.005	13	227	0.000	13	227	0.005
18:00 - 19:00	13	227	0.003	13	227	0.001	13	227	0.004
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.014			0.016			0.030

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
 MULTI-MODAL COACH PASSENGERS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	13	227	0.000	13	227	0.000	13	227	0.000
08:00 - 09:00	13	227	0.000	13	227	0.003	13	227	0.003
09:00 - 10:00	13	227	0.000	13	227	0.000	13	227	0.000
10:00 - 11:00	13	227	0.000	13	227	0.000	13	227	0.000
11:00 - 12:00	13	227	0.000	13	227	0.000	13	227	0.000
12:00 - 13:00	13	227	0.000	13	227	0.000	13	227	0.000
13:00 - 14:00	13	227	0.000	13	227	0.000	13	227	0.000
14:00 - 15:00	13	227	0.001	13	227	0.000	13	227	0.001
15:00 - 16:00	13	227	0.002	13	227	0.000	13	227	0.002
16:00 - 17:00	13	227	0.000	13	227	0.000	13	227	0.000
17:00 - 18:00	13	227	0.000	13	227	0.000	13	227	0.000
18:00 - 19:00	13	227	0.000	13	227	0.000	13	227	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.003			0.003			0.006

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
 MULTI-MODAL PUBLIC TRANSPORT USERS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	13	227	0.000	13	227	0.006	13	227	0.006
08:00 - 09:00	13	227	0.001	13	227	0.029	13	227	0.030
09:00 - 10:00	13	227	0.001	13	227	0.008	13	227	0.009
10:00 - 11:00	13	227	0.001	13	227	0.002	13	227	0.003
11:00 - 12:00	13	227	0.002	13	227	0.004	13	227	0.006
12:00 - 13:00	13	227	0.002	13	227	0.003	13	227	0.005
13:00 - 14:00	13	227	0.004	13	227	0.003	13	227	0.007
14:00 - 15:00	13	227	0.003	13	227	0.003	13	227	0.006
15:00 - 16:00	13	227	0.021	13	227	0.006	13	227	0.027
16:00 - 17:00	13	227	0.010	13	227	0.005	13	227	0.015
17:00 - 18:00	13	227	0.012	13	227	0.002	13	227	0.014
18:00 - 19:00	13	227	0.015	13	227	0.005	13	227	0.020
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.072			0.076			0.148

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	13	227	0.100	13	227	0.432	13	227	0.532
08:00 - 09:00	13	227	0.198	13	227	0.766	13	227	0.964
09:00 - 10:00	13	227	0.221	13	227	0.330	13	227	0.551
10:00 - 11:00	13	227	0.207	13	227	0.291	13	227	0.498
11:00 - 12:00	13	227	0.197	13	227	0.263	13	227	0.460
12:00 - 13:00	13	227	0.291	13	227	0.273	13	227	0.564
13:00 - 14:00	13	227	0.290	13	227	0.287	13	227	0.577
14:00 - 15:00	13	227	0.332	13	227	0.338	13	227	0.670
15:00 - 16:00	13	227	0.561	13	227	0.324	13	227	0.885
16:00 - 17:00	13	227	0.584	13	227	0.319	13	227	0.903
17:00 - 18:00	13	227	0.677	13	227	0.323	13	227	1.000
18:00 - 19:00	13	227	0.545	13	227	0.398	13	227	0.943
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.203			4.344			8.547

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
 MULTI-MODAL CARS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	13	227	0.045	13	227	0.166	13	227	0.211
08:00 - 09:00	13	227	0.085	13	227	0.243	13	227	0.328
09:00 - 10:00	13	227	0.086	13	227	0.110	13	227	0.196
10:00 - 11:00	13	227	0.078	13	227	0.100	13	227	0.178
11:00 - 12:00	13	227	0.073	13	227	0.090	13	227	0.163
12:00 - 13:00	13	227	0.104	13	227	0.094	13	227	0.198
13:00 - 14:00	13	227	0.102	13	227	0.100	13	227	0.202
14:00 - 15:00	13	227	0.112	13	227	0.119	13	227	0.231
15:00 - 16:00	13	227	0.169	13	227	0.100	13	227	0.269
16:00 - 17:00	13	227	0.186	13	227	0.110	13	227	0.296
17:00 - 18:00	13	227	0.236	13	227	0.117	13	227	0.353
18:00 - 19:00	13	227	0.200	13	227	0.138	13	227	0.338
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.476			1.487			2.963

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
 MULTI-MODAL LGVS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	13	227	0.014	13	227	0.027	13	227	0.041
08:00 - 09:00	13	227	0.017	13	227	0.025	13	227	0.042
09:00 - 10:00	13	227	0.021	13	227	0.021	13	227	0.042
10:00 - 11:00	13	227	0.020	13	227	0.021	13	227	0.041
11:00 - 12:00	13	227	0.015	13	227	0.018	13	227	0.033
12:00 - 13:00	13	227	0.019	13	227	0.015	13	227	0.034
13:00 - 14:00	13	227	0.021	13	227	0.021	13	227	0.042
14:00 - 15:00	13	227	0.020	13	227	0.016	13	227	0.036
15:00 - 16:00	13	227	0.020	13	227	0.020	13	227	0.040
16:00 - 17:00	13	227	0.022	13	227	0.019	13	227	0.041
17:00 - 18:00	13	227	0.030	13	227	0.016	13	227	0.046
18:00 - 19:00	13	227	0.015	13	227	0.016	13	227	0.031
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.234			0.235			0.469

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
 MULTI-MODAL MOTOR CYCLES
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	13	227	0.000	13	227	0.001	13	227	0.001
08:00 - 09:00	13	227	0.000	13	227	0.001	13	227	0.001
09:00 - 10:00	13	227	0.000	13	227	0.001	13	227	0.001
10:00 - 11:00	13	227	0.000	13	227	0.000	13	227	0.000
11:00 - 12:00	13	227	0.000	13	227	0.001	13	227	0.001
12:00 - 13:00	13	227	0.000	13	227	0.001	13	227	0.001
13:00 - 14:00	13	227	0.001	13	227	0.001	13	227	0.002
14:00 - 15:00	13	227	0.002	13	227	0.001	13	227	0.003
15:00 - 16:00	13	227	0.001	13	227	0.000	13	227	0.001
16:00 - 17:00	13	227	0.002	13	227	0.002	13	227	0.004
17:00 - 18:00	13	227	0.002	13	227	0.001	13	227	0.003
18:00 - 19:00	13	227	0.001	13	227	0.001	13	227	0.002
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.009			0.011			0.020

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Appendix C Concept masterplan



Site Boundary: Aprx. 22.40ha

CIRCULATION & DEVELOPMENT

- Primary vehicular/pedestrian/cycle access point
- Potential developable area: Up to 450 dwellings
- Tree lined spine street and verges
- Indicative internal street layout
- Recreational routes
- Pedestrian/cycle links
- Raised shared surface/ pedestrian priority areas

GREEN INFRASTRUCTURE & RECREATION

- Existing vegetation
- Proposed green infrastructure including retained wildlife corridors containing new landscaping and habitat creation
- Proposed new structural/woodland/thicket planting
- Community orchards
- Children's play area
- Sustainable Drainage Systems (SuDS) basins
- De-culverted watercourse
- Wildlife Areas (Ecological Enhancements/BNG)
- Wildlife ponds
- 'Village Green'

CONTEXT

- Existing Public Rights of Way (#RoW - Footpaths)
- Surrounding Planning Applications North of Stafford Strategic Development

SUBJECT TO FURTHER ADVICE & TECHNICAL INPUTS

B	07.12.22	JC	Reps Submission version
A	04.08.22	JC	Amended with drainage inputs
Rev	Date	By	Description

CSA environmental

Project Land at Marston Lane STAFFORD

Title Concept Masterplan

Client Vistry Group

Scale 1:2500 @ A2 Drawn JC

Date July 2022 Checked RR

Drawing No. CSA/4261/109 Rev B

Appendix 5

Archaeology & Heritage Note

Land at Marston Farm, Stafford, April 2021 (updated October 2022)

This Archaeology & Heritage Note has been prepared by CSA Environmental on behalf Vistry Group, in relation to land at Marston Farm, Stafford (hereafter the 'Site'). It provides an initial review of potential constraints and opportunities in relation to archaeology, built heritage and historic landscape. This note was prepared in April 2021, and updated with reference to design plans in October 2022. The updated note also refers to discussions with the archaeological advisor to the LPA in May 2021.

1.0 Introduction

1.1 The Site comprises agricultural fields and modern farm buildings located to the east/south of Marston Lane, north of Stafford. Fields were grass at the time of the site visit.

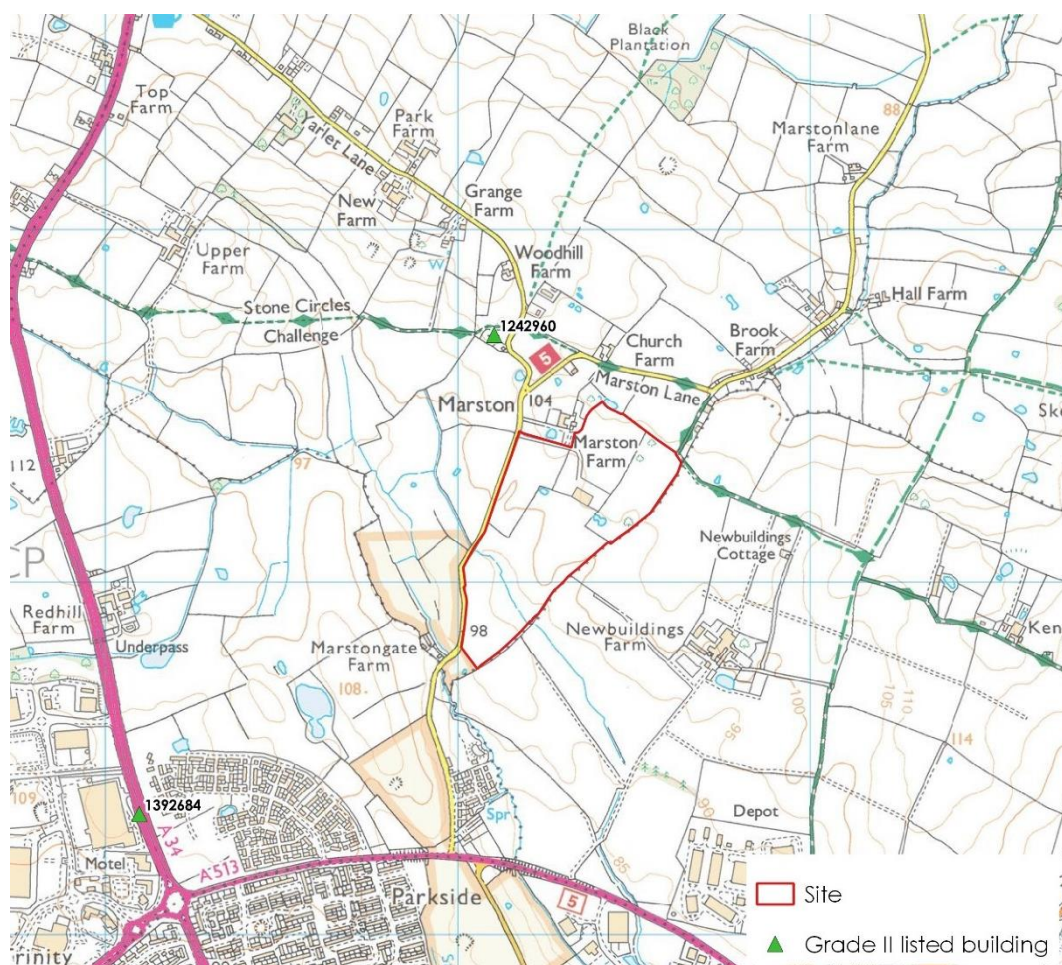


Plate 1: Site Location and Designated Heritage Assets (after the NHLE) (not to scale).

2.0 Methodology

2.1 This note has been informed by the following sources:

- The National Heritage List for England (NHLE), maintained by Historic England, for records of designated heritage assets (excluding conservation areas).
- The Historic Environment Record for details of recorded heritage and previous archaeological works (data received February 2021).
- The Local Authority website for information on conservation areas.
- Historic Tithe and Ordnance Survey mapping available online.
- A site visit undertaken 6 April 2021.

2.2 The review of Historic Environment Record data focused on the Site area. Consideration of designated heritage assets focuses on those within or close to the Site. The site visit focused on recorded heritage assets. This note is designed to provide initial comment on the archaeological and heritage resource and is not a full Desk-Based Assessment or detailed Setting Assessment.

3.0 Legislation and Guidance

3.1 The Planning (Listed Buildings and Conservation Areas) Act 1990 (the 1990 Act) sets out legislation relating to listed buildings and conservation areas. With regards to listed buildings, Section 66 (1) of the 1990 Act states that

“in considering whether to grant planning permission for development which affects a listed building or its setting, the Local Planning Authority or, as the case may be, Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses”.

3.2 With regards to potential impacts to heritage assets key relevant paragraphs of the NPPF comprise:

“199. When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset’s conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance.

200. Any harm to, or loss of, the significance of a designated heritage asset...should require clear and convincing justification...

201. Where a proposed development will lead to substantial harm (or total loss of significance of) a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or total loss is necessary to achieve substantial public benefit...

202. *Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal...*

203. *The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application..."*

4.0 Designated Heritage Assets

- 4.1 No designated heritage assets are located within or adjacent to the Site. The closest designated heritage asset is the Grade II listed church of St Leonard c. 250m north-west of the Site (Plate 1, 1242960). This is a late-18th century church, without tower or spire. It principally derives its significance from its interest as a post-medieval parish church. The site visit did not identify any views to the church from within the Site, which is separated from it by intervening roads and agricultural land. It is not anticipated that residential development of the Site would adversely impact the significance of the Grade II listed Church of St Leonard.
- 4.2 A Grade II listed milepost is located c. 1km south-west of the Site (Plate 1, 1392684). This is not sensitive to adverse impacts as a result of the development of the Site. Designated heritage assets in the wider area include Stafford Conservation Area (which contains a number of associated listed buildings) c. 3km south of the Site, the Battle of Hopton Heath Registered Battlefield c. 2.5km east of the Site and Sandon Park Grade II Registered Park and Garden c. 3km north-east of the Site (not illustrated). There are distant views towards Sandon Park from the northern area of the Site, and distant views towards the centre of Stafford from the south-eastern area of the Site. In the absence of any identified associative relationship or key views, it is not anticipated that residential development of the Site would adversely impact the significance of these distant designated heritage assets.

5.0 Non-Designated Heritage Assets

- 5.1 Deserted medieval settlement is recorded at Marston. The HER maps the potential extent of Marston (/Mertone) Deserted Settlement as extending into the north-western area of the Site (Plate 2, 02504). Ridge and furrow earthworks, potentially of medieval origin, are also recorded within the Site (53609). Marston is recorded in the Domesday survey (1086) and earthworks are recorded surrounding Marston Lane. Earthworks are visible on historic satellite imagery/aerial photographs, mainly outside the Site; earthworks visible within the Site comprise a south-west/north-east linear, potentially an extension of Marston Lane with possible settlement earthworks extending into the northern area of the Site (outside the area of settlement recorded on the HER) (Plate 3). Earthworks within and around the Site have been reduced by ploughing in the 21st century (Plate 4). The former south-west/north east linear is faintly discernible on Lidar data. Lidar also records ridge and furrow earthworks extant in the eastern area of the Site (under long grass at the time of the site visit, east of the area of ridge and furrow recorded on the HER).

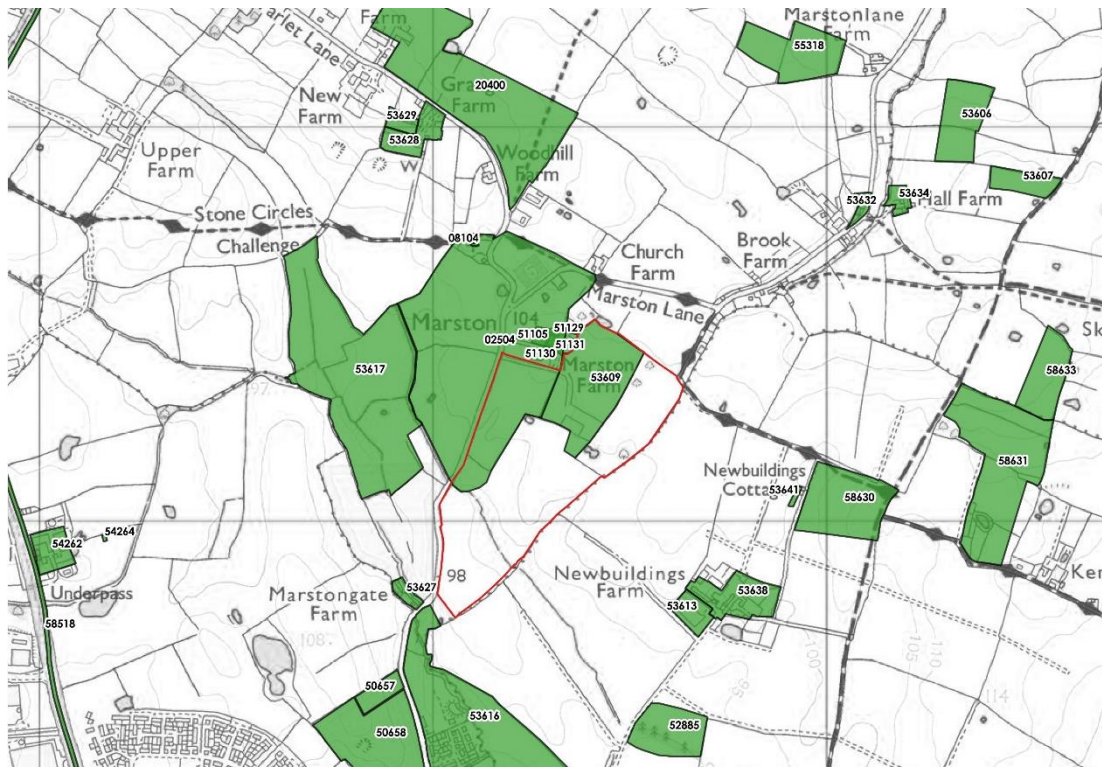


Plate 2: Staffordshire HER 'monument polygons' (This map contains Staffordshire Historic Environment Record data © Staffordshire Council; not to scale)



Plate 3: Historic aerial photograph (© Google Earth).



Plate 4: Recent Lidar data (Environment Agency 2019 1m DTM composite)

- 5.2 Archaeological works associated with pipeline construction, crossing the southern area of the Site (south of the area of medieval settlement), recorded a *'ponded area...comprising silty wet peat to a depth of 2m, funning for c. 65m'*, suggested as an infilled quarry or extraction pit (Network Archaeology 1999, plot 147/148¹. No extraction is recorded on the historic mapping but a watercourse is recorded crossing the southern area of the Site which would explain the presence of waterlogged deposits in this area.
- 5.3 Historic buildings at Marston Farm, north of the Site, are recorded on the HER. The farmhouse and associated farm buildings are likely late Georgian (early-19th century) and are non-designated heritage assets (Plate 2, HER refs. 51105, 51130, 51129, 51131). The mid-19th century Tithe Survey records the Site as under the same ownership and occupancy as Marston Farm. The main aspect of the farmhouse faces east, across the Site (Plate 5). Development of the Site would alter the agricultural setting of historic buildings at Marston Farm which would potentially result in some adverse impact to their significance. Farm buildings within the Site are not of heritage interest.
- 5.4 Other buildings in the vicinity recorded on the HER and which may be considered non-designated heritage assets include Marstongate Farm, immediately west of the Site (HER ref. 53627) and Newbuildings Farm c. 400m east of the Site (HER ref. 53638).

¹ Network Archaeology Ltd. 1999 *Audley to Alrewas Gas Pipeline: Archaeological Watching Brief: Site Gazetteer and Maps*, typescript report available at <https://archaeologydataservice.ac.uk/archiveDS/archiveDownload?t=arch-1352-1/dissemination/pdf/Staffordshire/GL31016.pdf>

Development of the Site would alter the wider agricultural setting to these buildings but it is likely any harm to their significance would be negligible at most.



Plate 5: View to Marston Farm from within the site, view to north-west

6.0 Conclusions

- 6.1 An initial review of designated heritage assets in the vicinity has not identified any considered likely to be subject to adverse impacts as a result of residential development of the Site.
- 6.2 Historic buildings at Marston Farm, adjacent to the Site, are non-designated heritage assets. The Site is part of the historic landholding of Marston Farm and development would likely result in some adverse impact to the significance of these buildings as a result of alteration to setting. Current proposals include for built form in the northern area of the Site, with additional tree planting to screen / soften the appearance of new built form in views east. Under the NPPF harm to a non-designated heritage asset should be taken into account in decision making.
- 6.3 Medieval settlement is identified at Marston, extending into the Site, visible as earthworks on historic aerial photographs/satellite imagery. Ploughing or other destructive processes have removed above-ground remains within the Site, and much of the surrounding area, but there is potential for associated below-ground remains, which could be further disturbed/removed by development of the Site. Medieval settlement remains can be of the highest significance, typically where they are associated with substantially extant earthworks and good documentary evidence. Based on current evidence it is likely that medieval settlement features within the Site are of a significance commensurate to a non-designated heritage

asset. Similarly, ridge and furrow earthworks within the Site are likely of a significance commensurate to a non-designated heritage asset.

- 6.4 A copy of the first draft of this note was provided to the archaeological advisor to the LPA in May 2021, who confirmed that no further assessment was required at this stage. Further assessment would be appropriate to inform a planning application, including full desk-based assessment with detailed setting assessment, and geophysical survey. Trial trench evaluation will most likely be required, potentially as a condition of planning permission (Shane Kelleher, County Archaeologist, Staffordshire County Council, pers. comm. May 2021). Further works, such as archaeological excavation, would be informed by the results of the trial trench evaluation.

Appendix 6



Land at Marston Farm, Stafford

Landscape and Visual Overview

Prepared by
CSA Environmental

on behalf of
Vistry Group

Report No: CSA/4621/02

December 2022

Report Reference	Revision	Date	Prepared by	Approved by	Comments
CSA/4621/02	-	01/04//2021	AJ	CA	Draft Issue
	A	18/10/2022	AJ	CA	Second Issue
	B	01/12/2022	CA	CA	Minor change to dwelling nbrs
	C	13/12/2022	BS	CA	Dwelling numbers amended



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1.0 Introduction	2
2.0 Landscape Policy Context and Character Studies	4
3.0 Site Context and Description	12
4.0 Suitability of the Site to Accommodate Development	19
5.0 Conclusion	25

Appendices

Appendix A: Site Location Plan

Appendix B: Aerial Photograph

Appendix C: Photosheets

Appendix D: MAGIC Map and Local Plan Extract

Appendix E: North of Stafford Masterplan 2016 Extract

Appendix F: Concept Masterplan

Appendix G: Methodology for Landscape and Visual Assessment

1.0 INTRODUCTION

- 1.1 CSA Environmental has been appointed by Vistry Group to undertake a landscape and visual overview of Land at Marston Farm, Stafford (the 'Site'). The Site is being promoted as a potential location for strategic growth to the north of Stafford. The location and extent of the Site is shown on the Location Plan at **Appendix A** and on the Aerial Photograph at **Appendix B**
- 1.2 The Site lies within the administrative area of Stafford Borough Council. The area to the north of Stafford is due to undertake a significant development of 3,100 dwellings as per the North of Stafford Development Location Masterplan (2016) and in accordance with the adopted Local Plan. The Site lies directly adjacent to the identified strategic growth location. A planning application for 2,000 dwellings to the south east of the Site was approved on the 5th October 2022 (Planning application 16/25450/OUT). A second planning application for 700 dwellings to the south west has also been approved (Planning application 2032039REM). The proposed route of the HS2 line is also planned to pass to the north of the Site.
- 1.3 This assessment describes the existing landscape character and quality of the Site and the surrounding area. The report then goes on to discuss the suitability of the Site to accommodate the development proposals, and the potential landscape and visual effects on the wider area.
- 1.4 A Concept Masterplan (contained in **Appendix F**) has been developed for the Site, which form the basis of the consideration of the potential landscape and visual effects. The proposals comprise the erection of up to 450 new residential dwellings, together with associated open space and village green, play space, wildlife areas and Sustainable Drainage Systems ('SuDS'). Access will be taken from Marston Lane in two locations.

Methodology

- 1.5 This assessment is based on a site visit undertaken by a suitably qualified and experienced Landscape Architect in March 2021. The weather conditions at the time were good, and visibility was good.
- 1.6 In landscape and visual impact assessments, a distinction is drawn between landscape effects (i.e. effects on the character or quality of the landscape irrespective of whether there are any views of the landscape, or viewers to see them) and visual effects (i.e. effects on people's views of the landscape from public vantage points, including public rights of way and other areas with general public access, as well as effects from any residential properties). This report therefore considers

the potential impact of the development on both landscape character and visibility.

- 1.7 Photographs contained within this document (**Appendix C**) were taken using a digital camera with a lens focal length approximating to 50mm, to give a similar depth of vision to the human eye. In some instances images have been combined to create a panorama.

2.0 LANDSCAPE POLICY CONTEXT AND CHARACTER STUDIES

Local Policy Context

2.1 The Site lies within the administrative area of Stafford Borough Council. The adopted Local Plan for the Borough, with relevance to the Site, consists of:

- The Plan for Stafford Borough, adopted June 2014
- The Plan for Stafford Borough – Part 2, adopted January 2017
- The Policies Map which shows where the policies from the two parts of the Local Plan will apply.
- The North Stafford Masterplan, adopted 2016

2.2 The council are also in the process of producing a new Local Plan. The Local Plan preferred options consultation is planned to take place from the 24th October and will run to the 12th December 2022.

The Plan for Stafford Borough (2014)

2.3 Policies within this document which are of relevance to the Site and the landscape are listed below:

- Policy SP3: Stafford Borough Sustainable Settlement Hierarchy
- Policy Stafford 2 – North of Stafford. The policy identifies an area to the north of Stafford, shown on the Policy Map, to provide a sustainable, well designed, mixed use development to be delivered by 2031. The Site lies directly adjacent to the identified area.
- Policy C1: Dwelling Types and Sizes
- Policy C5: Residential Proposals outside the Settlement Hierarchy
- Policy C7: Open Space, Sport and Recreation
- Policy N1: Design
- Policy N2: Climate Change
- Policy N4: The Natural Environment & Green Infrastructure sets out criteria for the protection, enhancement and improvement of the boroughs natural environment in relation to new developments. These include:
 - The implementation of The Stafford Borough Green

Infrastructure Strategy and Staffordshire Biodiversity Action Plan

- Conservation and enhancement of water courses and their settings for their landscape character, biodiversity and recreational value
- Protecting, conserving and enhancing the natural and historical environment
- Networks of open spaces for formal and informal recreation, natural corridors, access routes and watercourse will be enhanced and created where those networks protect the setting of landscape.
- Policy N8: Landscape Character – which requires development proposals to be informed by and sympathetic to landscape character and quality. It goes on to say that development should demonstrate that proposals with landscape and visual implications should protect, conserve and where appropriate, enhance:
 - The elements of landscape which contribute to local distinctiveness
 - Historical elements of the present-day landscape that contribute to landscape character
 - The setting and view of or from heritage assets, including Historic Environment Record. Part of the Site lies within an area identified as a Historic Environment Record Area.
 - The locally distinctive pattern of landscape elements
- Policy N9: Historic Environment

The Plan for Stafford Borough – Part 2 (2017)

2.4 Policies within this document which are of relevance to the Site and the landscape are listed below:

- Spatial Principle 3 (SP3) Stafford Borough Sustainable Settlement Hierarchy
- Spatial Principle 7 (SP7): Supporting the Location of New Development
- Policy SB1: Settlement Boundaries

North of Stafford Masterplan 2016 (Extract in **Appendix E**)

- 2.5 Policy Stafford 2 within the Local Plan requires that a masterplan should be prepared for the development North of Stafford and agreed by Stafford Borough Council prior to any planning applications being made in the area. Since the adoption of the Local Plan a 'North of Stafford Masterplan' document has been produced by Pegasus Group on behalf of Akzo Nobel UK Ltd and adopted by the local authority in 2016. The Site lies directly adjacent to the proposed residential development shown within the Masterplan. Since the adoption of the document, planning permission for 700 dwellings within the western part of the strategic growth location, to the west of the Site, has been approved. Proposed development of up to 2,000 dwellings within the eastern part of the strategic growth location was also approved in October 2022.

Stafford Borough's Green Infrastructure Strategy

- 2.6 The Stafford Borough's Green Infrastructure Strategy was produced to help inform the development of Stafford Borough Council's local plans. It is made of three documents which include:

- The Green Infrastructure Strategic Plan (2009)
- The Green Infrastructure Research & Evidence Base;
- The Green Infrastructure Supplementary Planning Document

- 2.7 Within the Green Infrastructure Strategic Plan (2009) an area including Marston Brook to the north of Stafford, which runs close to the Sites' southern boundary, is identified as a 'Strategic Watercourse Corridor' and a 'Strategic Open Space Action Area'. These strategic watercourses are identified as defining the borough's landscape and the physical layout of its settlements. The importance of maintaining and enhancing the corridors biodiversity is noted as well as the possibility to create access routes which will link communities to the wider green space network. Strategic Open Space Action Areas have been identified as areas suitable for large strategic and multifunction green spaces.

Staffordshire Biodiversity Action

- 2.8 The Site is identified as lying within the Central Farmland Ecosystem Action Plan ('EAP') area. The Central Farmland EAP is found within the Staffordshire Plain National Character Area ('NCA') and the Needwood and South Derbyshire Claylands NCA. Within the Action Plan, the area of Central Farmland EAP within the Staffordshire Plain National Character Area is described as largely made up of settled/ancient clay

farmlands where mixed arable and pastoral farming practices vary from low intensity to intensively farmed arable pastures. The area within the Needwood and South Derbyshire Claylands is described as largely made up of settled plateau farmland slopes which contain areas of ancient oak woodland, new woodland plantations and large fields

2.9 Priority habitats within the EAP are identified and include;

- Hedgerows
- Arable field margins
- Rivers
- The creation of wetland, grassland and woodland habitat mosaics are identified as opportunities within the area. Grasslands are also noted as particularly important.

2.10 Key threats to the EAP are identified within the Action Plan and include;

- Habitat Fragmentation
- Agricultural Intensification
- Urban Encroachment

2.11 As part of the evidence base to inform the new local plan a number of documents have been produced on behalf of the Council and, of relevance to the Site, include;

- Strategic Housing & Employment Land Availability Assessment (SHELAA) 2019 Update
- Nature Recovery Network 2019
- Strategic Development Options 2019

Strategic Housing & Employment Land Availability Assessment (SHELAA) 2019 Update

2.12 This document was prepared as part of the evidence base for the emerging local plan for Stafford Borough.

2.13 The Site, ID MAR04, was identified as being adjacent to a sustainable settlement identified in the adopted Local Plan and potentially suitable for development based on compliance with Criteria C5 in the Local Plan. The Historic Environmental Record Area – Marston/Mertone Deserted Settlement was identified as a constraint to development of the Site.

Strategic Development Options 2019

- 2.14 AECOM were commissioned by Stafford Borough council to prepare an assessment of options for delivering growth on strategic scale sites within the administrative area. Overall, the report identifies that areas in and around Stafford and the key north-south transport routes are least constrained in terms of Environment, Topography and flood risk.

National Landscape Character

- 2.15 Natural England has produced profiles for England's National Character Areas ('NCAs'), which divides England into 159 distinct natural areas, defined by a unique combination of landscape, biodiversity, geodiversity and cultural and economic activity. The Site lies across the border between the Shropshire, Cheshire and Staffordshire Plain NCA (Area Profile 61), the Cannock Chase and Cank Wood NCA (Area Profile 67) and the Needwood & South Derbyshire Claylands NCA (Area Profile 68).

Shropshire, Cheshire and Staffordshire Plain NCA

- 2.16 The western part of the Site lies within the Shropshire, Cheshire and Staffordshire Plain NCA. The NCA is described as an extensive, gently undulating plain, with prominent discontinuous sandstone ridges with few areas of woodland, confined to the area around Norwich. There are locally extensive tracts of coniferous woodland and locally distinctive orchards scattered throughout. It is also described as having strong field patterns, with generally well maintained boundaries, predominantly hedgerows with dense mature hedgerow trees. Parklands and gardens associated with estates are also present.

Cannock Chase and Cannock Wood NCA

- 2.17 The south eastern part of the Site lies within the Cannock Chase and Cank Wood NCA which is described as a varied landscape ranging from open heathlands and plantations of Cannock Chase, through towns, new developments to dense urban areas. The dominant rounded central plateau is mainly formed of the coal measures of south Staffordshire coalfield with other prominent hills in the south. Extensive coniferous plantations, woodland and historic parklands occur across the NCA even within the urban areas where they are predominantly small and include young plantations. Away from Cannock Chase, fields have a regular pattern and are frequently enclosed by mature hedgerows with some hedgerow trees. The major rivers Trent and Tame lie adjacent to the NCA in broad flood plains. There is an extensive network of canals and railways and major roads include M6, M7 and A5 dominate the area.

Needwood & South Derbyshire Claylands NCA

- 2.18 The north eastern corner of the Site lies within the Needwood & South Derbyshire Claylands NCA. The character area is described as being dissected by the river systems of the Trent, the Blithe and the Dove. The south is described as a predominantly pastoral landscape of rolling countryside that is still largely rural and relatively tranquil, featuring distinctive field boundary patterns and characteristic hedgerows with hedgerow trees. An overall wooded character derived from scattered ancient and semi natural woodland, parkland and boundary trees. The character area is generally associated with landscape parks and country houses. The Trent and Dove valleys are also prominent major transport corridors.
- 2.19 From our own assessment of the Site, we would note that the northern part of the Site, where it rises to a ridge and plateaus, is largely rural in character with extensive views to the wooded ridgelines and Sandon Registered Park and Gardens to the north. This is consistent with the Needwood & South Derbyshire Claylands NCA. Where the Site falls gradually to the south, the character is influenced by the intervisibility and proximity of Stafford's dense urban development. The tranquillity of the Site as a whole is also influenced by the audible presence of the A34 and M6 trunk roads, consistent with the Cannock Chase and Cank Wood NCA.

The Staffordshire Planning for Landscape Change and Character

- 2.20 The Staffordshire Planning for Landscape Change and Character Assessment was adopted on 10 May 2001 as Supplementary Planning Guidance to the Staffordshire and Stoke on Trent Structure Plan 1996-2011. Although this Plan has now been revoked, the Staffordshire and Stoke on Trent Joint Waste Local Plan (2010 – 2026) (Adopted March 2013) requires that regard is given to Planning for Landscape Change or its successor document which will remain a material consideration. The assessment divides the county into 22 Character Types. The Sites lies within the Settled Farmlands Character Type.
- 2.21 The assessment describes the Character Type as undulating lowland and hills with a thin scattering of small woodlands, often ancient in origin. The settlement pattern is noted as being mixed and not distinctive.
- 2.22 Visual character of the Character Type is described as mixed arable and pastoral farmland with medium scale irregular field pattern which has deteriorated considerably by removal of hedgerows. Hedgerow oaks, characteristic of this area, vary in density from being numerous enough to filter views across the landscape to isolated elements in a landscape of generally open character. The landscape has a very rural feeling, with

small winding country lanes linking the large numbers of traditional red brick farms and old settlements. Industrial and commuter development now generally impacts on this character quite strongly.

- 2.23 Characteristic landscape features of the Character Type are identified and include: gently undulating landform with pronounced occasional high points; mature broadleaved woodlands; hedgerow oaks and a strong irregular hedgerow pattern; well treed field ponds and stream corridors; traditional red brick farmsteads and settlement and small ancient winding lanes.
- 2.24 Incongruous landscape features of the Character Type are identified and include: new housing development; industrial development, large modern farm buildings and power lines.
- 2.25 The assessment goes on to identify factors critical to landscape character and quality. These include: the loss of characteristic landscape features; the poor condition of those features which remain and the relatively poor survival of characteristic semi-natural vegetation.
- 2.26 Specific guidelines provided for the Character Type are provided for tree and woodland planting.
- 2.27 From our own assessment of the Site, we would note that key characteristic features identified within the assessment, such as the gently undulating landform, hedgerow oaks and a strong irregular pattern are present across the Site. The northern part of the Site is influenced by the presence of a traditional red brick farmstead. The southern part of the Site however is also influenced by industrial and commuter development, as well as new residential development, along the northern edge of Stafford.

The Historic Environment Character Assessment 2009

- 2.28 A series of historic environment assessments (HEAs) have been produced by the County Council's Historic Environment Section for seven out of Staffordshire's eight Districts and Boroughs, plus the Cannock Chase AONB. The project was commissioned by the Forward Planning Section at Stafford Borough Council, to form part of the evidence base for the options assessment of their local spatial strategy. The Historic Environment Assessment identifies Historic Environmental Character Area (HECAs) with each divided up into a series of Historic Environment Character Zones (SHECZs). The assessment also provides an overall evaluation of the potential impact of medium to large scale housing development upon the historic environment within each 'zone'. The Site is identified as lying within HECA 5f and SHECZ 17.

- 2.29 The report identifies that character areas prefixed by a 5 cover much of western Staffordshire where arable open field agriculture was practiced from the medieval period. Numerous settlements are scattered throughout these character areas. HECA 5f is described as having a generally well-preserved field system of late medieval/post medieval origin with evidence for medieval open field system and a historic settlement pattern of villages and farmsteads.
- 2.30 SHECZ 17 is described as being dominated by historic field pattern with an open field pattern associated with the historic settlement of Marston. It is noted that medium to large scale development within the zone is likely to have significant impact upon the historic environment.

3.0 SITE CONTEXT AND DESCRIPTION

Site Context and Description

- 3.1 The Site is located to the north of Stafford along Marston Lane and is approximately 22.40ha in size. For the purpose of this assessment the Site has been divided into Parcels A-F (please refer to Aerial Photograph in **Appendix B**). Parcels A-C, E and F comprise several irregular shaped arable fields. A line of overhead post mounted wires cross Parcels B and C in an east to west direction. An area of scrubby woodland lies within the south western corner of Parcel F. There is also a large ditch with long grassy vegetation within Parcel F midway along the eastern boundary. Parcel D comprises agricultural buildings and associated access road which runs from the western boundary along the northern edge of Parcel B.
- 3.2 The southern part of the Site narrows and the south western boundary of the Site follows the southern field boundary of Parcel A. The boundary is comprised of post and wire fencing. To the immediate south of the boundary lies a single pastoral field which lies between the Site's southern boundary and Marston Lane, the other side of which is Marstongate Farmhouse. Marston Brook runs to the south of the single pastoral field and continues north of Marstongate Farmhouse, crossing the agricultural fields to the north west of the Site and continuing southward into the centre of Stafford. To the south of the brook and to the east of Marston Lane lies a field currently under construction for residential development. To the west of Marston Lane is an area of common land which follows Marston Brook towards the Centre of Stafford.
- 3.3 Marston Lane joins the A513 approximately 0.5km south of the Site. The A153 curves around the north of Stafford. The new Taylor Wimpey Marston Grange development is located along the northern edge of the A513, approximately 0.5km south west of the Site. Beacon Barracks lie along the northern edge of the A513 approximately 0.5km south east of the Site. To the south of the A513 is the urban area of Stafford, which extends in depth to the centre of Stafford, approximately 2.5km south of the Site.
- 3.4 The northern Site boundary follows the field boundary of Parcel E and F and is comprised of dense hedgerow and a field access gate in the north west corner of the Site. Immediately north of the Site lies further agricultural fields and a small farm house, which separate the Site from Marston Lane. The proposed route of HS2 will cross these fields in the north east corner. To the north of Marston Lane lie numerous fields with small scattered blocks of woodland beyond which is the route of the

A51, approximately 3.2km to the north. Sandon Park (Registered Park and Garden) lies approximately 3.7km to the north east of the Site.

- 3.5 The eastern Site boundary follows the eastern field boundaries of Parcel A, C and F. The boundary mainly consists of hedgerow with post and wire fencing, and where there are gaps in the vegetation, just post and wire fencing. To the immediate east of the Sites lie agricultural fields which form part of the strategic growth location set out in the North of Stafford Masterplan. Proposed development for up to 2,000 dwellings has now been approved for this area (see policy section in Chapter 2 and Site Location Plan in **Appendix A**). Newbuildings Farm is found approximately 0.5km east of the Site. The fields identified as a strategic growth location stretch from the Site's eastern boundary to Sandon Lane approximately 1.1km east of the Site. Beyond Sandon Lane, the village of Hopton lies approximately 1.6km east of the Site
- 3.6 The majority of the Site's western boundary follows Marston Lane and comprises dense overgrown hedgerow with post and wire fencing. Marston lane travels along the west of the Site until it reaches the north western corner where it turns and travels in an east-west direction to the north of the Site. Within the western boundary of Parcel A there is a field access gate and numerous hedgerow trees.
- 3.7 To the north of Parcel B, the western boundary is indented by the grounds of Marston Farm House and Granary buildings. The western boundary of Parcel E is comprised of the ha-ha associated with Marston Farm House. Mature parkland trees lie within the associated grounds of Marston Farm House and are prominent features of the immediate surrounding landscape.
- 3.8 To the immediate west of Marston Lane lie numerous irregular shaped agricultural fields. The fields in the south form part of the Marston Brook common land. The fields to the west of the common land form the western part of the strategic growth location set out in the North of Stafford Masterplan. This area has planning permission for 700 residential dwellings (see policy section in Chapter 2 and Site Location Plan in **Appendix A**). To the north of this there are numerous irregular shaped agricultural fields which are intersected by linear development along Yarlet Lane, which runs from the north western corner of the Site to the A34. The A34 and M6 road corridors lie approximately 1.5km and 3km west of the Site.
- 3.9 The landform within the Site rises from the lowest point in the south, at approximately 95m Above Ordnance Datum ('AOD'), to a local ridge (approximately 105m AOD) roughly in line with the northern boundary of Parcel C. The northern part of the Site and the area around Marston Farm occupy an area of plateau, beyond which the land falls towards

Marston Lane. This ridge continues eastward defining the northern edge of the strategic growth area, and providing containment to the sloping land to the south.

Designations and Heritage Assets

- 3.10 The Multi Agency Geographic Information for the Countryside Map ('MAGIC') and the Local Policies Maps indicate that the Site is not covered by any statutory designations for landscape character or quality (please refer to MAGIC Map and Local Plan Extract in **Appendix D**). The Historical Environments Records identifies the north-western part of the Site, which includes parts of Parcels B-E, as part of Marston Deserted Medieval Settlement.
- 3.11 There are no listed buildings within the Site or along the Site's boundaries. The Church of St Leonard, a Grade II listed building lies within 0.5km of the Site to the north west, however there is limited visibility between the Church and the Site.

Visibility

- 3.12 An assessment of the visibility of the Site was undertaken and a series of photographs taken from public vantage point, rights of way and public highways. These representative viewpoints are illustrated on the Site Location Plan and Aerial Photograph contained in **Appendix A** and **B** and on the photographs within **Appendix C**.
- 3.13 Due to the nature of the landform within the Site and the surrounding area, key views towards different Parcels of the Site differ. In general, the landform rises towards the northern part of the Site to a ridge and then plateaus. Within the surrounding landscape the landform rises to a ridge to the north east of the Site. Key views to the northern parts of the Site, including the northern most part of Parcel B and Parcels D-F which sit above the ridge, are from Marston Farm House and public footpaths to the north and north east. Long distance views to the Site are also possible from the north.
- 3.14 Views from the north to the southern part of the Site are restricted by the landform within the Site. Mature vegetation to the south also restricts views from this direction. Key views to the southern part of the Site are from public footpaths to the east. Key views towards the entire Site exist from Marston Lane adjacent to the Site's western boundary.
- 3.15 This section provides a commentary on the existing visual baseline. However, the surrounding visual context will alter substantially as a result of the planned development in North of Stafford growth area. As a result, the character and extent of views towards the Site from the

surrounding area will undergo significant change. Further consideration of the future visual effects in light of the planned development is set out in Section 4 of this document.

West

- 3.16 There are filtered views of residential properties along Yarlet Lane from the interior of all parts of the Site (reciprocal views shown in **photographs 05, 08 & 21**). Views from Marston St Leonard Church are screened by vegetation within the Church grounds (see **photograph 21**). There are filtered views of some areas within the interior of the Site from Marston Farm House (see **photographs 11 & 15**).
- 3.17 Views from Marston Lane on the approach from the south are heavily filtered by intervening field boundary vegetation and vegetation along the Marston Brook Corridor (see **photograph 23**). There is an open view of the Site's southern boundary from Marston Lane adjacent to Marstongate farmhouse, however, the topography of the intervening fields means the interior of the Site cannot be seen (see **photograph 24**). Views of the interior of the Site from Marston Lane adjacent to the Site's western boundary are filtered by hedgerow vegetation along the Site boundary. Framed views of the interior of the Site are possible where there are gaps in the vegetation or field access gates (see **photographs 25 & 26**). There is a framed view of Parcel D from Marston Lane at the junction with the farm access road. Hedgerow vegetation along the northern edge of Parcel B filters views of the interior of the Parcel (see **photograph 27**). Views from the junction of Yarlet Lane and Marston Lane of the interior of the Site are screened by intervening hedgerow vegetation, however the top of the Marston Farm agricultural buildings within the Site are visible (see **photograph 28**).
- 3.18 Views towards the Site from the public footpath adjacent to Marston St Leonard Church are screened by intervening vegetation (see **photograph 34**). Filtered views of the Site's boundary vegetation are possible further east along the footpath however views into the Site's interior are screened (see **photograph 33**). Views towards the Site from public footpath Marston 1 close to the A41 are screened by intervening field boundary vegetation (see **photograph 32**). Further west views are screened by intervening landform.
- 3.19 Views towards the Site from Yarlet Lane look across intervening fields where heavily filtered views of vegetation along the western boundary of Parcel B are possible (see **photograph 40**).

South

- 3.20 Open views of the Site's southern boundary are possible from Marstongate Farmhouse (for reciprocal views see **photograph 04**). Partial views of the rooflines of new residential development at Willow Grange are also possible from the southern boundary of Parcel A (see **photograph 04**).
- 3.21 Views from the south to the northern most part of the Site are restricted by the landform within the Site (see **photographs 15 & 16**). Filtered views to the buildings in Tollgate Industrial Estate are available from Parcel B and reciprocal views may also be possible (see **photograph 19**).
- 3.22 Partial views of Parcel A are possible from Quincy Way in the new development at Marston Grange, although intervening landform and vegetation screen views to the north of the Site (see **photograph 29**). Views to the Site are screened from the junction of Marston Lane and the A513 within the Marston Brook common land by intervening residential development and roadside vegetation (see **photograph 30**).

3.23 East

- 3.24 Views to Parcel A, B, C and F from Newbuildings Farm, Beacon Barracks and Tollgate Industrial Estate look across intervening fields and are largely unrestricted (see **photograph 31** and for reciprocal views see **photograph 01, 06, 07 & 12**).
- 3.25 Mid-distance views towards the agricultural buildings within Parcel D of the Site and vegetation along the eastern boundary of Parcel F are possible from public bridleway Hopton and Coton 16. The intervening landform and Site boundary vegetation screens views to the interior of the Site (see **photographs 38 & 39**).
- 3.26 Mid-distance views to the Site from public bridleway Hopton and Coton 11, to the north east of the Site, look across intervening fields. The topography of the intervening fields screen views of the southern parts of the Site. Views towards the agricultural buildings within Parcel D and the Site's northern boundary vegetation are possible (see **photograph 43**). Further east, views towards the Site are screened by intervening landform.

3.27 North

- 3.28 Views to the southern part of the Site from the north are screened by the landform within the Site (see **photograph 03** for reciprocal views). Near distance views towards the Site from Marston Lane, directly north of the

Site, are screened by intervening field boundary hedgerows (see **photographs 35 & 36**).

- 3.29 Mid-distance views towards the Site from public footpath Marston 2 are mostly screened by vegetation adjacent to the footpath. Where there are gaps in the vegetation a framed view towards the agricultural buildings within Parcel D is possible but intervening landform screens views to the interior of the Site (see **photograph 41**). Views to the Site from public footpath Salt and Enson 6 are screened by intervening landform (see **photograph 42**).
- 3.30 Long distance views towards the Site from public footpaths to the north of the Site, including Salt and Enson 3, Sandon and Burston 33 and Sandon and Burston 9 within Sandon Park, are possible and look across intervening fields. The mature vegetation associated with Marston Farm House can be identified but forms a small part of a panoramic view (see **photographs 44-46**)

Landscape Quality, Value and Sensitivity

- 3.31 The Site comprises several irregular shaped arable fields and does not carry any statutory designations for landscape character or quality. The landscape features of the Site are mostly restricted to the boundaries of the Parcels apart from areas of scrubby woodland in the south western corner of Parcel F.
- 3.32 The Staffordshire Planning for Landscape Change and Character Assessment describes the area as having a rural feeling although commuter development is noted as impacting the character of the type as a whole. From our own assessment of the Site and surrounding area we would note the audible presence of the A531, A34 and M6 corridor. It is also noted that the visual character is deteriorating as a result of hedgerow removal.
- 3.33 The northern part of the Site retains a rural character and there is little sense of the urban development in Stafford. This part of the Site has an intact structure of field hedgerows. Marston Farm House and associated mature parkland trees and ha-ha, which forms the western boundary of Parcel E, is of notable landscape quality.
- 3.34 Whilst the southern part of the Site is still rural in character it is more closely influenced by the proximity of the current northern settlement edge of Stafford, as industrial development to the south east and new residential development at Willow Grange to the south and Marston Grange to the south west are visible from this area of the Site. In terms of character, this part of the Site is pleasant but not distinguished. The line of mature trees between the boundary of Parcel A and Parcels B and C are a notable

feature within this part of the Site. Overall, the Site is assessed as being of medium landscape quality.

- 3.35 In terms of landscape value, the Site is not notably scenic and is not covered by any designations for landscape or ecological value. The surrounding landscape to the south of the Site gently slopes towards the northern settlement edge of Stafford and contains areas which are currently pastoral farmland with some urban influences including Beacon Barracks, transport corridors and new residential development. The southern part of the Site cannot be described as particularly tranquil due to its proximity to the current northern settlement edge of Stafford, which has some degree of influence and the audible presence of transport corridors. The surrounding landscape to the north of the Site is mainly farmland with an undulating landform which eventually rises to a prominent ridge to the north east. Within the north of the Site, Marston Farm House and associated grounds are a prominent feature. Overall, the Site is assessed as being of medium landscape value, however the parkland associated with Marston Farm House is assessed as being of higher value.
- 3.36 In terms of landscape sensitivity, the Site occupies an area of pleasant but not overly distinguished farmland. The ridge in the northern part of the Site provides containment to the land to the south, although there is some inter-visibility between the northern fields and vantage points further north. The Site lies adjacent to the proposed North of Stafford strategic growth area, and the surrounding countryside will experience significant change as a result of the planned development to the south and east. Development at the Site would be consistent with the wider pattern of growth within the strategic growth area, the extent of which is defined to the north east by the proposed route of HS2, and by the ridge and plateau which is also a feature of the northern part of the Site. Development at the Site would form a logical extension to the wider growth area once in place. The Site is therefore assessed as being of medium sensitivity to well planned development, although sensitivity increases within the northern part of the Site owing to the parkland at Marston Farm House and some inter-visibility in views from the farmland to the north.

4.0 SUITABILITY OF THE SITE TO ACCOMMODATE DEVELOPMENT

4.1 This section provides a brief appraisal of the suitability of the Site to accommodate the proposed development, in terms of the landscape and visual constraints and potential effects.

4.2 As shown on the Concept Masterplan in **Appendix F**, the proposals at the Site comprise the erection of up to 450 new residential dwellings, together with associated open space and village green, play areas, wildlife areas and Sustainable Drainage Systems ('SuDS'). Access will be taken from Marston Lane in two locations. The key landscape and layout principles which have informed the development shown on the Concept Masterplan include:

- Provision of up to 450 new residential dwellings across two main areas of development in the north and south. The development parcels have been set back from the internal and external boundaries of the Site to allow for the retention of existing boundary vegetation which will be incorporated into green corridors;
- Main vehicular access is proposed of Marston Lane, in two locations for the northern and southern parcels. The access roads have been located to avoid the need to remove any of the hedgerow trees. Short sections of hedgerow will require removal to facilitate the access roads but new tree and hedgerow planting across the development will help to mitigate these losses;
- A substantial new area of green space will be created within the centre of the development which will provide connections to the green space on the northern edge of the consented development to the east, creating a continuous wide green corridor. The green space will comprise substantial new areas of planting, including orchards, structural/thicket planting, native tree and wildflower meadow planting;
- The central green space will also comprise a central village green with informal sports pitches and a NEAP;
- Areas designated for wildlife could also be incorporated into the new central green space with new structural planting and pond creation;
- Retention of the majority of the existing vegetation, including the line of mature trees between the boundary of Parcel A and

Parcels B and C. New planting along the existing internal and external field boundary vegetation will reinforce the existing landscape structure of the Site. New tree and structural planting across the development and within the central green space will substantially increase tree cover on the Site;

- The provision of a network of recreational routes through areas of open space within the Site, including the central green space, to improve connectivity across the Site and to the wider network of public rights of way. New recreational routes could also provide physical connections to the green corridor along the northern edge of the development to the east;
- The provision of sustainable drainage features will be incorporated into the open space and landscaped to form an integral part of the central green space and provide biodiversity benefits;
- Street tree planting will be provided across the development.

Landscape Features

- 4.3 The main landscape features of the Site are mostly restricted to the boundaries of the Parcels apart from areas of scrubby woodland in the south western corner of Parcel F.
- 4.4 The development proposals have been sensitively designed to be set back to retain the majority of the trees, hedgerows and woodland. Two short sections of Category B hedgerow will require removal to facilitate the new access roads. The loss of these sections will be mitigated by substantial new tree and hedgerow planting across the Site.
- 4.5 A central green space is proposed between two areas of development located in the northern and southern parts of the Site. Substantial new planting can be incorporated into the open space, including tree, hedgerow, woodland/structural/thicket planting, orchards and wildflower meadows. Areas designated for wildlife could also be incorporated into the new central green space which could include pond creation.
- 4.6 New structural planting is proposed along the external boundaries of the Site, particularly along the northern edge to help create a landscaped edge along the boundaries which join more rural countryside. Green corridors across the development areas, shaped by existing field boundaries, will incorporate existing vegetation which will be bolstered with new tree and hedgerow planting.

Relationship to Settlement

- 4.7 Development at the Site will extend residential development northwards along Marston Lane. Scattered development in the form of large detached residential properties and farmsteads are located along Marston Lane to the west of the Site and further north.
- 4.8 Several new residential developments at Stafford have extended development northwards. These include the new Taylor Wimpey Marston Grange development located along the northern edge of the A513, approximately 0.5km south west of the Site and Land north of Marston Gate Farm, to the east of Marston Lane, south of the Site.
- 4.9 The Site lies adjacent to the proposed North of Stafford strategic growth area, some of which has started to be developed, and the surrounding countryside will experience significant change as a result of the planned development to the south and east. Development at the Site would be consistent with the wider pattern of growth within the strategic growth area, the extent of which is defined to the north east by the proposed route of HS2, and by the ridge and plateau which is also a feature of the northern part of the Site. Development at the Site would form a logical extension to the wider growth area once in place.

Visual Effects

- 4.10 As set out in Section 3, key views to the northern parts of the Site, including the northern most part of Parcel B and Parcels D-F which sit above the ridge, are from Marston Farm House and public footpaths to the north and north east. Long distance views to the Site are also possible from the north. Views from the north to the southern part of the Site are restricted by the landform within the Site. Mature vegetation to the south also restrict views from this direction. Key views to the southern part of the Site are from public footpaths to the east. Key views towards the entire Site exist from Marston Lane adjacent to the Site's western boundary.

West

- 4.11 There will be filtered views of the new houses in the north of the Site from residential properties along Yarlet Lane. The houses will be seen behind the intervening area of land and vegetation and retained boundary vegetation. There will be views of the new houses in the northern most part of the Site from Marston Farm House, seen behind retained boundary vegetation and green corridor of open space. As proposed planting matures, these views will become increasingly filtered.

- 4.12 Views towards the new houses will be possible from Marston Lane, when adjacent to the Site. The houses will be seen above the retained boundary hedgerow and scattered hedgerow trees and set back behind a green corridor along the boundary of the Site. At the point where the two new access roads are, there will be framed views into the development, with the new houses seen fronting onto the new access road. New trees within the area of open space and along the roads will help to break up the built form of the residential development. At the point adjacent to the central green space, views will look towards the areas of new planting and NEAP within it and the houses will be seen set behind it and facing onto the area.
- 4.13 Views towards the new houses from Marston Lane on the approach from the south will be heavily filtered by intervening field boundary vegetation and that along the Marston Brook Corridor.
- 4.14 On the approach from the north, views of the new houses in the northern most part of the Site will be visible behind the intervening area of land, Marston Farm and the retained boundary vegetation. As new structural planting matures, the new houses will become increasingly filtered in views from Marston Lane.
- 4.15 Where views are available towards the Site from Yarlet Lane, heavily filtered views of the new houses will be possible, where they will be seen behind the intervening area of farmland and above the retained boundary vegetation. As new boundary planting matures, these views will become increasingly screened.

South

- 4.16 Views of the new houses along the southern edge of the Site will be possible from Marstongate Farmhouse where the houses will be above the retained boundary hedgerow. As new tree planting matures, views of the built form will be softened.
- 4.17 Views of the new houses along the western edge of the Site may be possible from roads at the northern edge of the Marston Grange development to the south west. As new development in the strategic growth site to the north of Marston Grange comes forwards, these will restrict the views.

East

- 4.18 Views towards the new houses will be possible from Newbuildings Farm, Beacon Barracks and Tollgate Industrial Estate. In these views the houses will be seen across the intervening area of farmland and seen above retained boundary vegetation. As development in the strategic growth

site to the east of the Site comes forward, houses at the Site will become screened.

- 4.19 Where views are available towards the Site from public rights of way to the northeast, the new houses will be seen behind the intervening area of land and filtered by intervening field boundary vegetation and that along the Site's north eastern boundaries. As development at the strategic growth site to the east of the development comes forwards, residential development at the Site will be seen as part of a larger urban extension along the northern edge of Stafford and will not seem out of character.

North

- 4.20 Where views towards the Site are available from the north, the new houses along the northern edge of the Site will be visible but will screen those further south. From public footpath Marston 2, views of the tops of these houses will be filtered by the intervening field boundary vegetation. As new structural planting along the northern boundary of the Site matures, these views will become increasingly filtered.
- 4.21 Where longer distance views towards the Site are available, including public footpaths Salt and Enson 3, Sandon and Burston 33 and Sandon and Burston 9 within Sandon Park, views of the new housing will be possible although distant and will form a small part of a panoramic view. As the development at the strategic growth site comes forward, development at the Site will form part of a larger urban extension.

Landscape Effects

- 4.22 As set out in Section 3, the Site comprises several irregular shaped arable fields and does not carry any statutory designations for landscape character or quality. The main landscape features of the Site are mostly restricted to the boundaries of the Parcels apart from areas of scrubby woodland in the southwestern corner of Parcel F. Overall the Site is assessed as being of medium landscape quality, value, and sensitivity although sensitivity increases towards the northern edge of the Site where it is more closely related to the wider landscape to the north.
- 4.23 The proposed development will result in a substantial change in character at the Site, going from arable fields to residential development and new public open space. The Site is pleasant but does not have the same sense of tranquillity as the wider landscape, particularly the southern part of the Site. The Concept Masterplan demonstrates how a residential development of up to 450 new dwellings can be accommodated at the Site whilst retaining and enhancing the existing landscape features at the Site. Substantial new planting is

proposed within the proposals particularly within the new central green space and along the external boundaries of the Site.

- 4.24 The area of land to the north of Stafford is proposed as a strategic growth area, some of which has started to be developed, and the surrounding countryside will experience significant change as a result of the planned development to the south, east and west. Development at the Site would be consistent with the wider pattern of growth within the strategic growth area, the extent of which is defined to the northeast by the proposed route of HS2, and by the ridge and plateau which is also a feature of the northern part of the Site. Development at the Site would form a logical extension to the wider growth area once in place.
- 4.25 The Site and wider growth area will extend development north of Stafford into the surrounding landscape. The proposed route of the HS2 will wrap around the northern edge of the new urban extension which will also alter the character of the surrounding landscape and will exert an urbanising influence over the Site and land to the north. Strategic growth of this scale will result in a substantial change in the character of the landscape in the immediate vicinity of the Site, however effects on the character of the wider countryside will be more limited. Where more distant views toward Stafford are possible from public rights of way to the north, the northern edge of Stafford will now be seen closer. New structural planting along the northern edge of this area and on the ridgeline will help to create a robust boundary to the north of the growth area and will limit impacts on the character and views from the wider landscape. The proposed development at the Site will form a small part of a much wider urban extension and will be bound to the north by the route of the HS2.

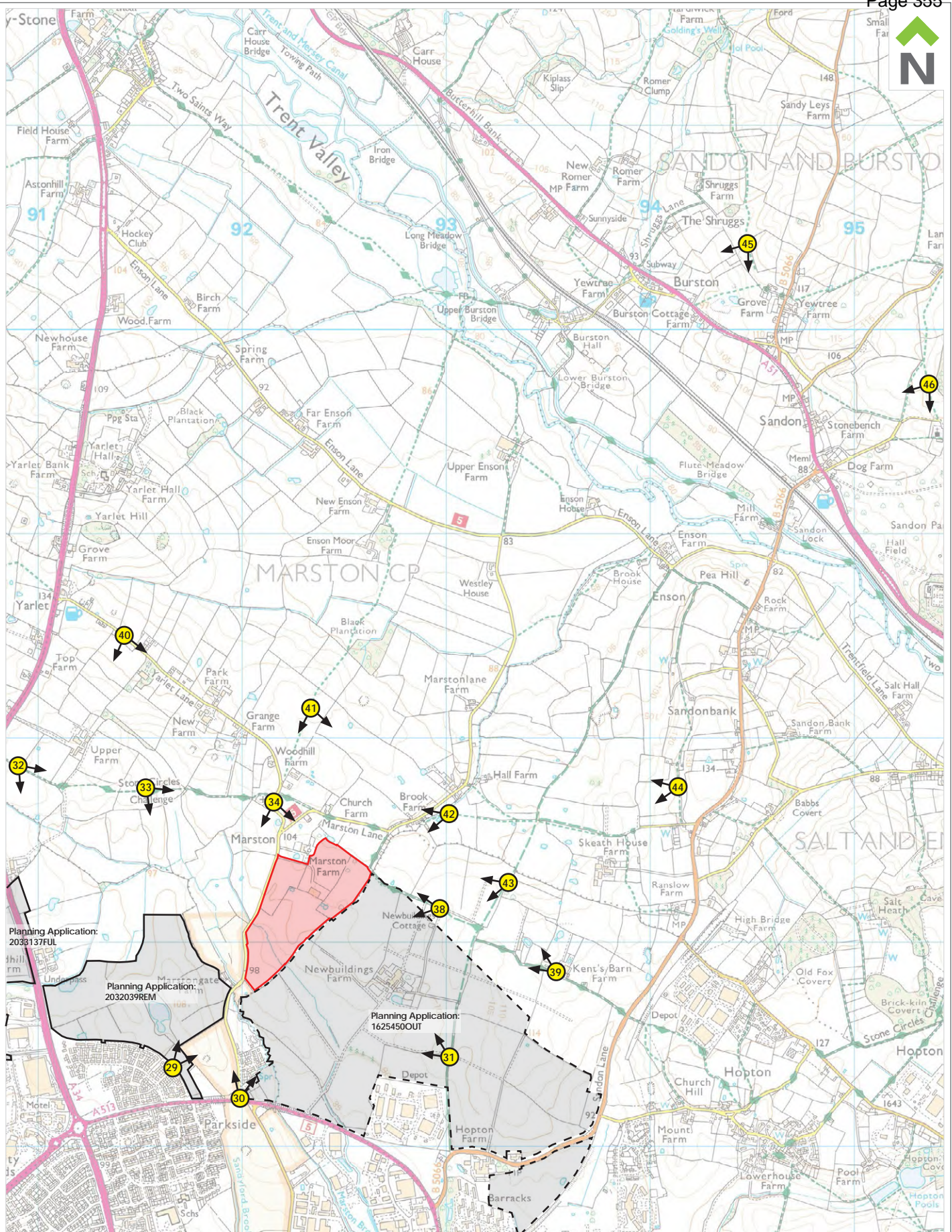
5.0 CONCLUSION

- 5.1 CSA Environmental has been appointed by Vistry Group to undertake a landscape and visual overview of Land at Marston Farm, Stafford (the 'Site'). The Site is being promoted as a potential location for strategic growth to the north of Stafford. The Site comprises several arable fields and is located to the north of Stafford along Marston Lane. There are several agricultural buildings located centrally within the Site.
- 5.2 The main landscape features of the Site are mostly restricted to the field boundaries apart from areas of scrubby woodland in the southwestern corner of the north east field. Overall the Site is assessed as being of medium landscape quality, value, and sensitivity although sensitivity increases towards the northern edge of the Site where it is more closely related to the wider landscape to the north.
- 5.3 The proposed development will result in a substantial change in character at the Site, going from arable fields to residential development and new public open space. The Site is pleasant farmland but does not have the same sense of tranquillity as the wider landscape, particularly the southern part of the Site.
- 5.4 The Concept Masterplan demonstrates how a residential development of up to 450 new dwellings can be accommodated at the Site whilst retaining and enhancing the existing landscape features at the Site. A central green space is proposed between two areas of development located in the northern and southern parts of the Site. Substantial new planting can be incorporated into the open space, including tree, hedgerow, woodland/structural/thicket planting, orchards and wildflower meadows. Areas designated for wildlife could also be incorporated into the new central green space which could include pond creation. New structural planting along the boundaries will enhance the existing landscape structure, particularly at the northern edge of the Site. The new green space and recreational routes will also connect the new development to the wider strategic growth area to the east.
- 5.5 The Site and wider growth area will extend development north of Stafford into the surrounding landscape. The proposed route of the HS2 will wrap around the northern edge of the new urban extension which will also alter the character of the surrounding landscape and will exert an urbanising influence over the Site and land to the north. Strategic growth of this scale will result in a substantial change in the character of the landscape in the immediate vicinity of the Site, however effects on the character of the wider countryside will be more limited. Where more distant views toward Stafford are possible from public rights of way to

the north, the northern edge of Stafford will now be seen closer. New structural planting along the northern edge of this area and on the ridgeline will help to create a robust boundary to the north of the growth area and will limit impacts on the character and views from the wider landscape. The proposed development at the Site will form a small part of a much wider urban extension and will be bound to the north by the route of the HS2.

Appendix A

Site Location Plan

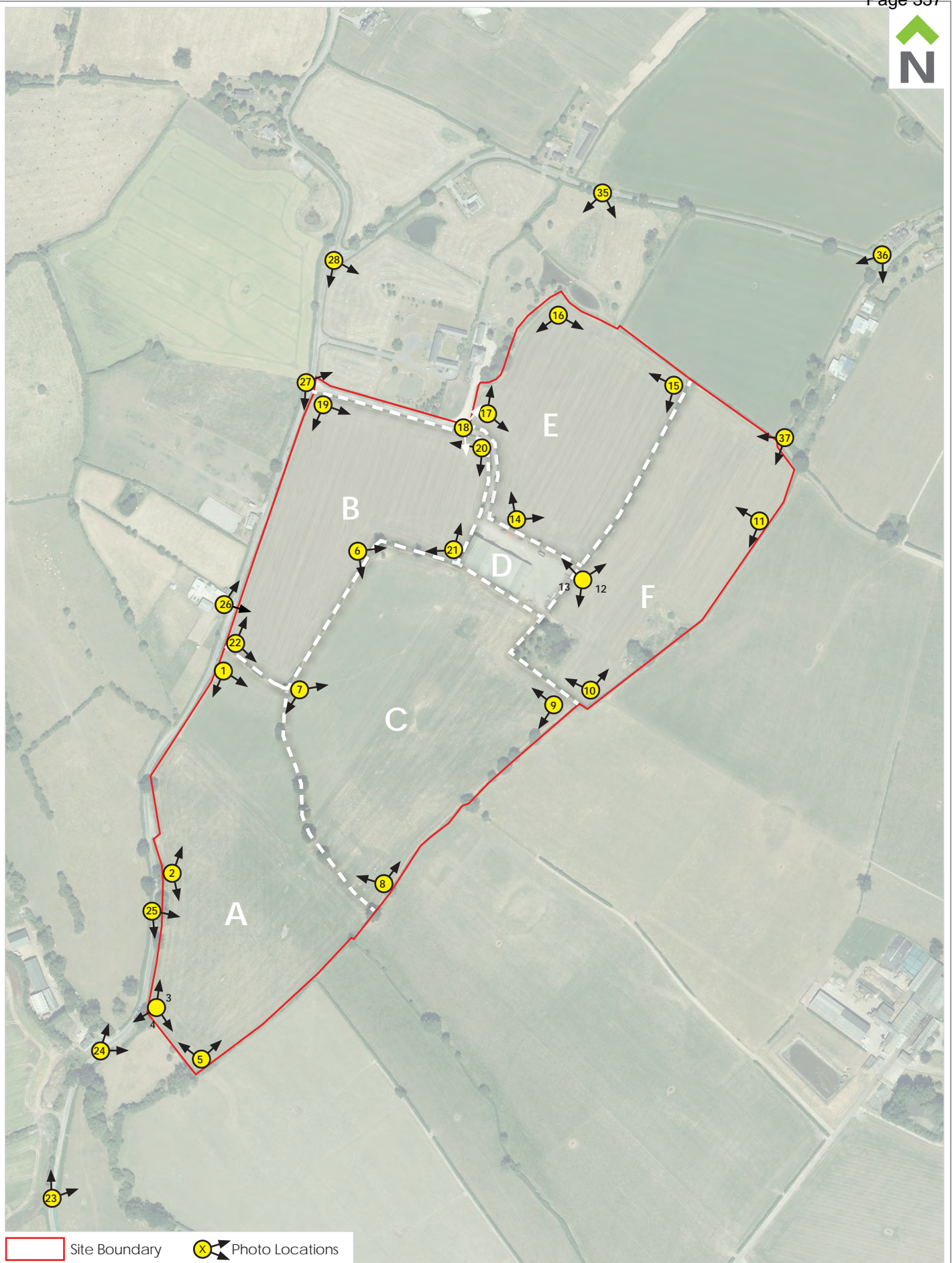


Site Boundary
 X Photo Locations
 Consented Development
 Planning Applications Awaiting Decision

	Project Land at Marston Farm, Stafford	Drawing No. CSA/4261/102	Rev -
	Drawing Title Site Location Plan	Scale @ A4 NTS	Drawn AJ
	Client Vistry Group	Date March 2021	Checked CA

Appendix B

Aerial Photograph



Site Boundary

X Photo Locations

	Project Land at Marston Farm, Stafford	Drawing No. CSA/4261/103	Rev -
	Drawing Title Aerial Photograph	Scale @ A4 NTS	Drawn AJ
	Client Vistry Group	Date March 2021	Checked CA

Appendix C

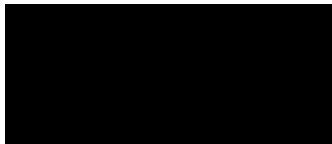
Photosheets



View from within Parcel A of the Site looking south east **Photograph 01**



View from within Parcel A of the Site looking east **Photograph 02**



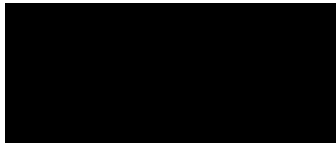
Project	Land at Marston Farm, Stafford	Drawing No.	CSA/4261/104	Rev	-
Drawing Title	Photosheets	Date	March 2021		
Client	Vistry Group	Drawn	AJ	Checked	CA



View from within Parcel A of the Site looking north east **Photograph 03**



View from within Parcel A of the Site looking south **Photograph 04**



Project	Land at Marston Farm, Stafford	Drawing No.	CSA/4261/104	Rev	-
Drawing Title	Photosheets	Date	March 2021		
Client	Vistry Group	Drawn	AJ	Checked	CA

Residential properties along Yarlet Lane

Marston Farm House and Granary Buildings

Marston Farm Agricultural Buildings



View from within Parcel A of the Site looking east **Photograph 05**

Marston Farm Agricultural Buildings

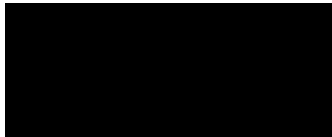
Newbuildings Farm

Beacon Barracks

Tollgate Industrial Estate



View from within Parcel B of the Site looking east **Photograph 06**



Project	Land at Marston Farm, Stafford	Drawing No.	CSA/4261/104	Rev	-
Drawing Title	Photosheets	Date	March 2021		
Client	Vistry Group	Drawn	AJ	Checked	CA

Tollgate Industrial Estate



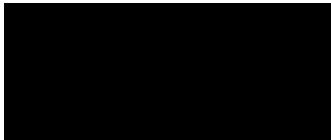
View from within Parcel C of the Site looking south east **Photograph 07**

Residential properties along Yartet Lane

Marston Farm Agricultural Buildings



View from within Parcel C of the Site looking north west **Photograph 08**



Project	Land at Marston Farm, Stafford	Drawing No.	CSA/4261/104	Rev	-
Drawing Title	Photosheets	Date	March 2021		
Client	Vistry Group	Drawn	AJ	Checked	CA

Marsgate Farm
Residential properties at Quincy Way

Marston Farm Agricultural Buildings

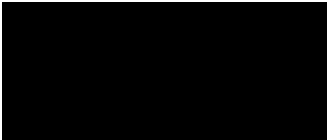


View from within Parcel C of the Site looking south west **Photograph 09**

Marston Farm Agricultural Buildings



View from within Parcel F of the Site looking north **Photograph 10**



Project	Land at Marston Farm, Stafford	Drawing No.	CSA/4261/104	Rev	-
Drawing Title	Photosheets	Date	March 2021		
Client	Vistry Group	Drawn	AJ	Checked	CA

Marston Farm Agricultural Buildings

Marston Farm House and Granary Buildings



View from within Parcel F of the Site looking south west **Photograph 11**

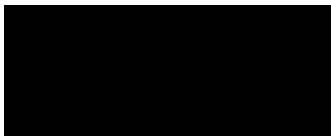
Newbuildings Farm

Beacon Barracks

Tollgate Industrial Estate



View from within Parcel F of the Site looking east **Photograph 12**



Project	Land at Marston Farm, Stafford	Drawing No.	CSA/4261/104	Rev	-
Drawing Title	Photosheets	Date	March 2021		
Client	Vistry Group	Drawn	AJ	Checked	CA

Trinity Fields Industrial Estate

Marston Farm Agricultural Buildings

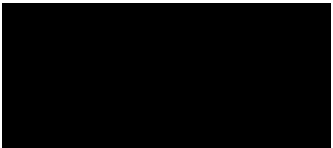


View from within Parcel F of the Site looking south west **Photograph 13**

Marston Farm House and Granary Buildings



View from within Parcel E of the Site looking north **Photograph 14**



Project Land at Marston Farm, Stafford

Drawing No. CSA/4261/104 Rev -

Drawing Title Photosheets

Date March 2021

Client Vistry Group

Drawn AJ Checked CA

Marston Farm House and Granary Buildings

Residential properties along Yarlet Lane
Church Farm

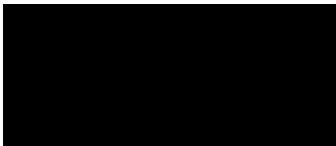


View from within Parcel E of the Site looking south west **Photograph 15**

Marston Farm Agricultural Buildings



View from within Parcel E of the Site looking south **Photograph 16**



Project	Land at Marston Farm, Stafford	Drawing No.	CSA/4261/104	Rev	-
Drawing Title	Photosheets	Date	March 2021		
Client	Vistry Group	Drawn	AJ	Checked	CA

Sandon Park



View from within Parcel E of the Site looking north east **Photograph 17**

Marston Farm House



View from Marston Farm access road within the Site looking east **Photograph 18**



Project Land at Marston Farm, Stafford

Drawing No. CSA/4261/104

Rev -

Drawing Title Photosheets

Date March 2021

Client Vistry Group

Drawn AJ

Checked CA



Marston Farm Agricultural Buildings

Tollgate Industrial Estate



Marston Farm Agricultural Buildings

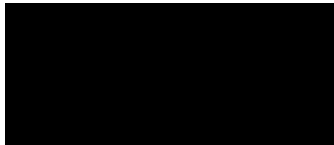
Pennycrofts Court Tower Block, Stafford Town Centre

Residential Development south of A513

View from within Parcel B of the Site looking south east
New residential development at Willow Grange, Marston Lane

Residential Development along Quincy Way

View from within Parcel B of the Site looking south west **Photograph 20**



Project	Land at Marston Farm, Stafford	Drawing No.	CSA/4261/104	Rev	-
Drawing Title	Photosheets	Date	March 2021		
Client	Vistry Group	Drawn	AJ	Checked	CA

Residential properties along Yarlet Lane

Vegetation within the grounds of St Leonard Church

Marston Farm House Granary Buildings

Marston Farm House

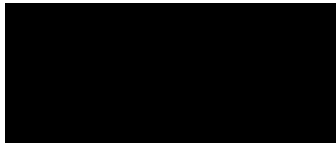


View from within Parcel B of the Site looking north east **Photograph 21**

Marston Farm Agricultural Buildings



View from within Parcel B of the Site looking north east **Photograph 22**



Project	Land at Marston Farm, Stafford	Drawing No.	CSA/4261/104	Rev	-
Drawing Title	Photosheets	Date	March 2021		
Client	Vistry Group	Drawn	AJ	Checked	CA

Marstongate Farmhouse

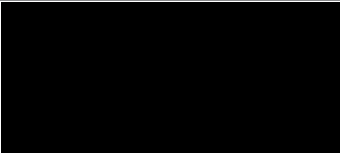


View from Marston Lane looking north east towards the Site **Photograph 23**

Fence along southern Site boundary of Parcel A



View from Marston Lane looking north east towards the Site **Photograph 24**



Project	Land at Marston Farm, Stafford	Drawing No.	CSA/4261/104	Rev	-
Drawing Title	Photosheets	Date	March 2021		
Client	Vistry Group	Drawn	AJ	Checked	CA

Newbuildings Farm

Vegetation along western boundary of Parcel A



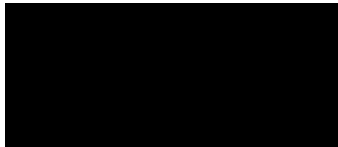
View from Marston Lane looking south east towards the Site **Photograph 25**

Marston Farm House

Vegetation along western boundary of Parcel B



View from Marston Lane looking east towards the Site **Photograph 26**



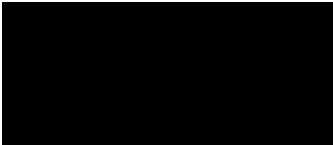
Project	Land at Marston Farm, Stafford	Drawing No.	CSA/4261/104	Rev	-
Drawing Title	Photosheets	Date	March 2021		
Client	Vistry Group	Drawn	AJ	Checked	CA



View from junction of Marston Farm access Road and Marston Lane looking north east towards the Site **Photograph 27**
 Marston Farm House and Granary Buildings Marston farm agricultural buildings



View from junction of Marston Lane and Yarlet Lane looking south east towards the Site **Photograph 28**



Project	Land at Marston Farm, Stafford	Drawing No.	CSA/4261/104	Rev	-
Drawing Title	Photosheets	Date	March 2021		
Client	Vistry Group	Drawn	AJ	Checked	CA

Parcel A, the Site

Newbuildings Farm

New residential development at Willow Grange, Marston Lane

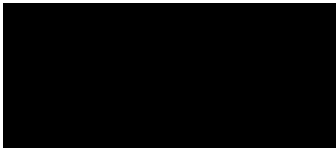


View from Quincy Way looking north east towards the Site **Photograph 29**

New residential development at Willow Grange, Marston Lane



View from junction of Marston Lane and the A513 looking north towards the Site **Photograph 30**



Project	Land at Marston Farm, Stafford	Drawing No.	CSA/4261/104	Rev	-
Drawing Title	Photosheets	Date	March 2021		
Client	Vistry Group	Drawn	AJ	Checked	CA

Beacon Barracks

New residential development at Willow Grange, Marston Lane

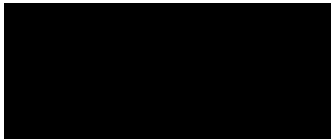
Vegetation along eastern boundary of Parcel A, the Site



View from public bridleway Hopton and Coton 11 looking north west towards the Site **Photograph 31**
Beacon Barracks



View from public footpath Marston 1 looking south east towards the Site **Photograph 32**



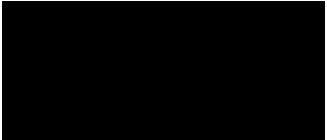
Western boundary vegetation of the Site Woodhill Farm



View from public footpath Marston 1 looking south east towards the Site **Photograph 33**



View from junction of public footpath Marston 1 and Yarlet Lane looking south east towards the Site **Photograph 34**



Project	Land at Marston Farm, Stafford	Drawing No.	CSA/4261/104	Rev	-
Drawing Title	Photosheets	Date	March 2021		
Client	Vistry Group	Drawn	AJ	Checked	CA

Vegetation along northern boundary of Parcel E, the Site Marston Farm House and Granary Buildings



View from Marston Lane looking south towards the Site Photograph 35



View from Marston Lane looking south west towards the Site towards the Site Photograph 36



Project	Land at Marston Farm, Stafford	Drawing No.	CSA/4261/104	Rev	-
Drawing Title	Photosheets	Date	March 2021		
Client	Vistry Group	Drawn	AJ	Checked	CA

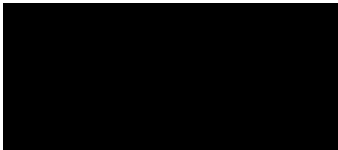
Parcel F, the Site



View from junction of public bridleways Marston 8 and Hopton and Coton 16 looking south west towards the Site **Photograph 37**
 Residential properties along Quincy Way
 Marston Farm agricultural buildings Eastern boundary of Parcel F, the Site



View from public bridleway Hopton and Coton 16 looking west towards the Site **Photograph 38**



Project	Land at Marston Farm, Stafford	Drawing No.	CSA/4261/104	Rev	-
Drawing Title	Photosheets	Date	March 2021		
Client	Vistry Group	Drawn	AJ	Checked	CA

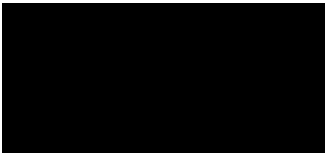
Marston Farm agricultural buildings, Parcel D, the Site



View from public bridleway Hopton and Coton 12 looking north west towards the Site **Photograph 39**
Vegetation along western boundary of Parcel B, the Site



View from Yarlet Lane looking south east towards the Site **Photograph 40**



Project	Land at Marston Farm, Stafford	Drawing No.	CSA/4261/104	Rev	-
Drawing Title	Photosheets	Date	March 2021		
Client	Vistry Group	Drawn	AJ	Checked	CA

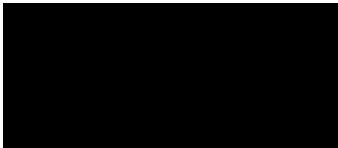
Marston Farm agricultural buildings, Parcel D, the Site
Marston Farm House and Granary buildings



View from public footpath Marston 2 looking south east towards the Site **Photograph 41**



View from public footpath Salt and Enson 6 looking south west towards the Site **Photograph 42**



Project	Land at Marston Farm, Stafford	Drawing No.	CSA/4261/104	Rev	-
Drawing Title	Photosheets	Date	March 2021		
Client	Vistry Group	Drawn	AJ	Checked	CA

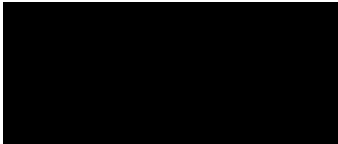
Marston Farm agricultural buildings, Parcel D, the Site
 Marston Farm House and Granary buildings



View from public bridleway Hopton and Coton 11 looking south west towards the Site **Photograph 43**
 Marston Farm House and Granary buildings



View from public footpath Salt and Enson 3 looking south west towards the Site **Photograph 44**



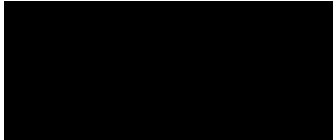
Project	Land at Marston Farm, Stafford	Drawing No.	CSA/4261/104	Rev	-
Drawing Title	Photosheets	Date	March 2021		
Client	Vistry Group	Drawn	AJ	Checked	CA



View from public footpath Sandon and Burston 33 looking south towards the Site **Photograph 45**



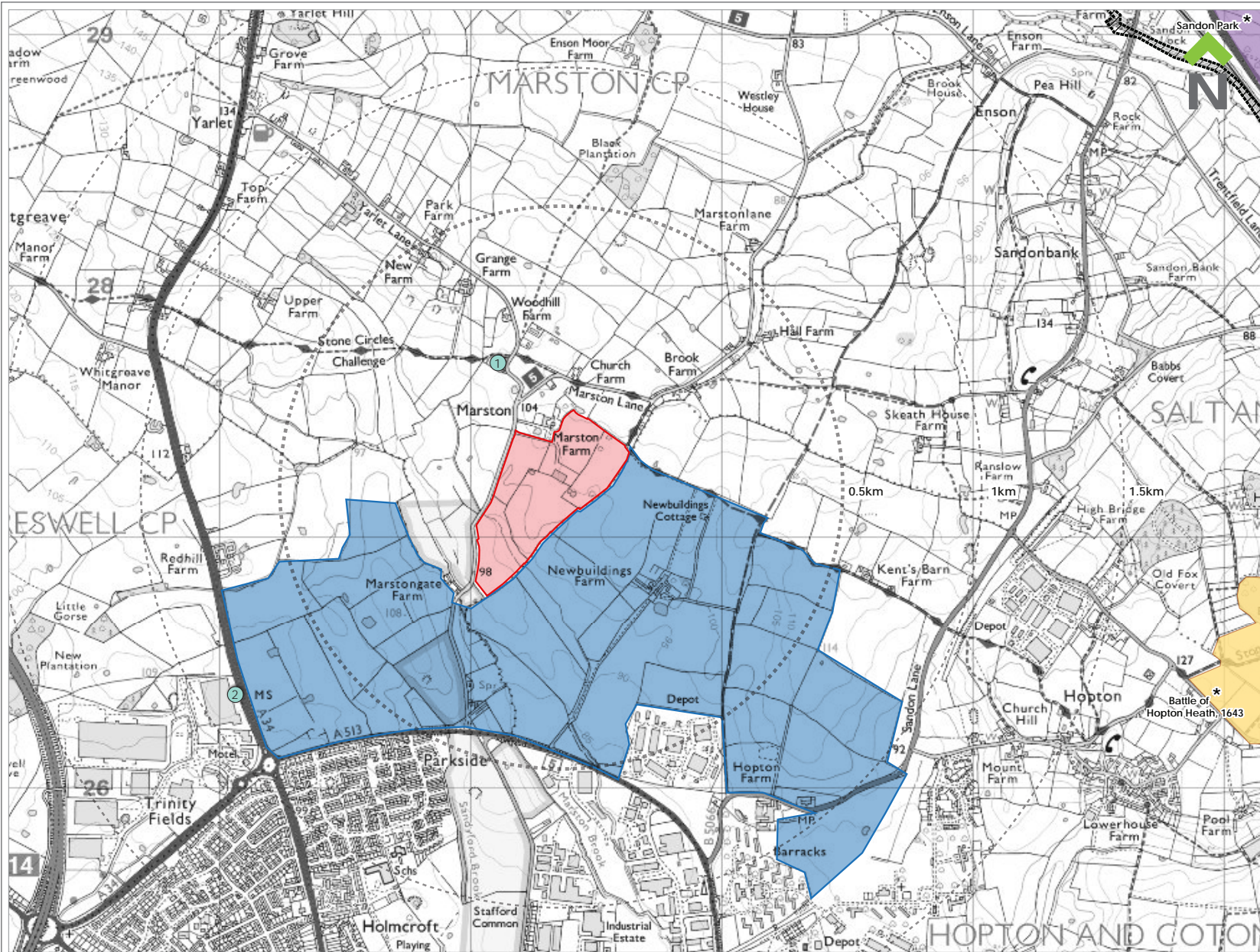
View from public footpath Sandon and Burston 9 looking south towards the Site **Photograph 46**



Project	Land at Marston Farm, Stafford	Drawing No.	CSA/4261/104	Rev	-
Drawing Title	Photosheets	Date	March 2021		
Client	Vistry Group	Drawn	AJ	Checked	CA

Appendix D

MAGIC map and Local Plan Extract



- Site Boundary
- Registered Parks and Gardens
- Registered Battlefield
- Conservation Areas
- X Grade II Listed Buildings & Structures within 1.5km (Outside Conservation Areas)
 1. Church of St Leonard
 2. Milepost north of layby, north of Stafford

Stafford Borough Local Plan

- Strategic Development Location - Housing



Project	Land at Marston Farm, Stafford	Date	March 2021	Drawing No.	CSA/4261/105
Drawing Title	MAGIC Map and Local Plan Extract	Scale @ A4	NTS	Rev	-
Client	Vistry Group	Drawn	AJ	Checked	CA

Appendix E

North of Stafford Masterplan 2016 Extract



- KEY**
- STRATEGIC DEVELOPMENT (FUTURE/HAZ)
 - STRATEGIC DEVELOPMENT (EXIST/HAZ)
 - RESIDENTIAL
 - LEGAL CENTRE
 - POTENTIAL LOCATION FOR ELDERLY HOME FACILITY
 - SECONDARY SCHOOL
 - PRIMARY SCHOOL
 - HEALTH CENTRE
- HC**
- ALLIEMENTS
 - POTENTIAL FOOT/BICYCLE ROUTE
 - POTENTIAL FOOTPATHS
 - MAIN ACCESS ROAD
 - SECONDARY STREETS
 - PRIMARY ACCESS
 - SECONDARY ACCESS
 - TWO-WAY PEDESTRIAN, CYCLE AND EMERGENCY VEHICLE CONNECTION AND POTENTIAL TWO-WAY BUS CONNECTION
 - TWO-WAY PEDESTRIAN, CYCLE AND EMERGENCY VEHICLE CONNECTION
 - REDHILL BUSINESS PARK PERMITTED EMPLOYMENT SCHEME
 - FUTURE EMPLOYMENT
 - VEHICULAR AND ACCESSIBILITY IMPROVEMENTS
 - COMMITTED HIGHWAY IMPROVEMENTS TO REDHILL: ROUNDABOUT, ROADSIDE AND A14
 - POTENTIAL DIVERSION OF MARSTON LANE SUBSEQUENT TO HIGHWAY IMPROVEMENTS
 - GREEN INFRASTRUCTURE
 - ATTENUATION AREAS
 - AREAS POTENTIALLY SUITABLE FOR ABOVE GROUND SIDE
 - DESTINATION PARK (10-12HA) DUAL USE OF SECONDARY SCHOOLS PITCHES WITH SEPARATE CHANGING FACILITIES
 - DESTINATION PLAY
- 1** POTENTIAL GRASS PITCHES
- 2** POTENTIAL UNDER 12'S PLAY AREA (INC. LOCAL EQUIPPED AREA OF PLAY)
- 3** POTENTIAL LOCATION FOR 7 SPORT (ENGLAND TYPE 1/2)
- 4** MULTIPLE USE GAMES AREA/PITCH
- 5** POTENTIAL LOCATION FOR 1 FULL SIZE TENNIS COURT
- 6** POTENTIAL ALLIEMENTS
- EXISTING FEATURES**
- PUBLIC FOOTPATHS (EXISTING)
 - BRIDLEWAYS (EXISTING)
 - CYCLEWAY (EXISTING)
 - DISCONTINUED CYCLE PATH
 - TREE BELTS (EXISTING)
 - HEDGES (EXISTING)
 - POND (EXISTING)
 - EXISTING DEVELOPMENT AREA
 - REGISTERED COMMON LAND
 - SITE OF BIOLOGICAL IMPORTANCE (SBI)
 - HP12 SITE - MARSTON GRANGE (TAYLOR WIMPEY) UNDER CONSTRUCTION



INDICATIVE MASTERPLAN

Appendix F

Concept Masterplan



Provide new thicker and tree planting to create a strong vegetated edge to the development, as well as a suitable offset to the proposed HS2 Alignment to the north. This area will also provide a suitable offset to respect the setting of the farmhouse and the landscape feature ('HAHA') and to protect the pond adjacent to the northern boundary which contains protected species.

Opportunity to provide vehicular, pedestrian and cycle access from Marston Lane serving the development, which would also retain and enhance the connection to the Sustrans route, making cycling an alternative option of travel.

Opportunity for new dwellings to overlook Marston Lane and the public open space, creating natural surveillance and an attractive edge to the development.

Area of land which falls within the HSE Consultation Inner Zone associated with the HP gas main, must be kept free from development. This space will create a vast recreation benefit for the neighbourhood. It will also be designed to promote biodiversity, habitat creation, creating wildlife areas, with ponds, orchard planting and semi-natural greenspace, for wildlife to flourish.

Retain and enhance the majority of the Site's existing hedgerow and tree planting and incorporate it into the green infrastructure network, enhancing wildlife corridors and the overall biodiversity of the Site.

Opportunity to provide vehicular, pedestrian and cycle access from Marston Lane serving the development, which would also retain and enhance the connection to the Sustrans route, making cycling an alternative option of travel.

LAND NORTH OF MARSTON GRANGE 14/24595/OUT
Outline planning application for residential development of up to 700 dwellings, 1 No. elderly living facility, a one form entry primary school and a local centre, development together with supporting infrastructure including: green infrastructure, highways and associated works. All matters are reserved other than the principal points of access.

LAND NORTH OF MARSTONGATE FARM 18/28182/REM
Reserved matters for 100 dwellings with details of appearance, landscaping, layout and scale pursuant to outline application

A network of SuDS basins at the low points, to help manage the flow of surface water during periods of heavy and persistent rainfall. These features could form an integral part of the Site's green infrastructure framework and provide habitat creation.

The spacing between the SuDS basin has been designed to allow for de-culverting of the watercourse that runs through the Site.

Green/wildlife corridors through the development and along the Site's boundary will help enhance the Site's ecological and landscape value, alongside the existing structural vegetation. This will set the development in a strong green framework. Opportunity for recreational routes within these corridors will create a well connected development, allowing for safe and easy movement for all new and existing residents.

A central village green will create a heart to the neighbourhood. Informal sports pitch, a neighbourhood equipped area for play and space for informal recreation will promote a social, active and cohesive environment for all.

Existing ponds and depressions to be retained and enhanced to create areas of ecological benefit and habitat creation.

Potential pedestrian links along the eastern boundary to connect into the existing Public Right of Way in the north eastern corner, as well as into North Stafford SUE to the east, promoting a well integrated and connected development.

NORTH OF STAFFORD STRATEGIC DEVELOPMENT LOCATION

LAND NORTH OF BEACONSIDE 16/25450/OUT
Outline planning application for mixed-use development, comprising the demolition of existing buildings and structures, the erection of up to 2,000 dwellings, 2 no. Local Centres, 1 no. Health Centre, 1 no. (up to 60 bed) elderly Living Facility, a two form entry Primary School, a five form entry Secondary School, together with supporting infrastructure including: green infrastructure, highways and associated works. All matters are reserved with the exception of principal means of access on to existing highway.

- Site Boundary: Aprx. 22.40ha
- CIRCULATION & DEVELOPMENT**
- Primary vehicular/pedestrian/cycle access point
- Potential developable area: Up to 450 dwellings
- Tree lined spine street and verges
- Indicative internal street layout
- Recreational routes
- Pedestrian/cycle links
- Raised shared surface/ pedestrian priority areas
- GREEN INFRASTRUCTURE & RECREATION**
- Existing vegetation
- Proposed green infrastructure including retained wildlife corridors containing new landscaping and habitat creation
- Proposed new structural/woodland/thicket planting
- Community orchards
- Children's play area
- Sustainable Drainage Systems (SuDS) basins
- De-culverted watercourse
- Wildlife Areas (Ecological Enhancements/BNG)
- Wildlife ponds
- 'Village Green'
- CONTEXT**
- Existing Public Rights of Way (#RoW - Footpaths)
- Surrounding Planning Applications North of Stafford Strategic Development

SUBJECT TO FURTHER ADVICE & TECHNICAL INPUTS

Rev	Date	By	Description
B	07.12.22	JC	Reps Submission version
A	04.08.22	JC	Amended with drainage inputs



Project	Land at Marston Lane STAFFORD		
Title	Concept Masterplan		
Client	Vistry Group		
Scale	1:2500 @ A2	Drawn	JC
Date	July 2022	Checked	RR
Drawing No.	CSA/4261/109	Rev	B

Appendix G

Methodology for Landscape and Visual Assessment

METHODOLOGY FOR LANDSCAPE AND VISUAL IMPACT ASSESSMENTS

- M1 In landscape and visual impact assessment, a distinction is normally drawn between **landscape/townscape effects** (i.e. effects on the character or quality of the landscape (or townscape), irrespective of whether there are any views of the landscape, or viewers to see them) and **visual effects** (i.e. effects on people's views of the landscape, principally from public rights of way and areas with public access, but also private views from residential properties). Thus, a development may have extensive landscape effects but few visual effects if, for example, there are no properties or public viewpoints nearby. Or alternatively, few landscape effects but substantial visual effects if, for example, the landscape is already degraded or the development is not out of character with it, but can clearly be seen from many residential properties and/or public areas.
- M2 The assessment of landscape & visual effects is less amenable to scientific or statistical analysis than some environmental topics and inherently contains an element of subjectivity. However, the assessment should still be undertaken in a logical, consistent and rigorous manner, based on experience and judgement, and any conclusions should be able to demonstrate a clear rationale. To this end, various guidelines have been published, the most relevant of which, for assessments of the effects of a development, rather than of the character or quality of the landscape itself, form the basis of the assessment and are as follows:
- 'Guidelines for Landscape & Visual Impact Assessment', produced jointly by the Institute of Environmental Assessment and the Landscape Institute (GLVIA 3rd edition 2013); and
 - 'An Approach to Landscape Character Assessment', October 2014 (Christine Tudor, Natural England) to which reference is also made. This stresses the need for a holistic assessment of landscape character, including physical, biological and social factors.
 - 'Assessing Landscape Value Outside National Designations', Landscape Institute's Technical Guidance Note 02/21

LANDSCAPE/TOWNSCAPE EFFECTS

- M3 Landscape/townscape quality is a subjective judgement based on the condition and characteristics of a landscape/townscape. It will often be informed by national, regional or local designations made upon it in respect of its quality e.g. AONB. Sensitivity relates to the inherent value placed on a landscape / townscape and the ability of that landscape/townscape to accommodate change.

Landscape sensitivity can vary with:

- (i) *existing land uses;*
- (ii) *the pattern and scale of the landscape;*
- (iii) *visual enclosure/openness of views, and distribution of visual receptors;*
- (iv) *susceptibility to change;*
- (v) *the scope for mitigation, which would be in character with the existing landscape; and*
- (vi) *the condition and value placed on the landscape.*

- M4 The concept of landscape/townscape value is considered in order to avoid consideration only of how scenically attractive an area may be, and thus to avoid undervaluing areas of strong character but little scenic beauty. In the process of making this assessment, the following factors, among others, are considered with relevance to the site in question: landscape quality (condition), scenic quality, rarity, representativeness, conservation interest, recreation value, perceptual aspects and associations.
- M5 Nationally valued landscapes are recognised by designation, such as National Parks and Areas of Outstanding Natural Beauty ('AONB') which have particular planning policies applied to them. Nationally valued townscapes are typically those covered by a Conservation Area or similar designation. Paragraph 174 of the current NPPF outlines that planning policies and decisions should contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes '*...in a manner commensurate with their statutory status or identified quality in the development plan*'.
- M6 There is a strong inter-relationship between landscape/townscape quality, value and sensitivity as high quality/value landscapes/townscapes usually have a low ability to accommodate change.
- M7 For the purpose of our assessment, landscape/townscape quality, value and sensitivity is assessed using the criteria in Tables LE1 and LE2. Typically, landscapes/townscapes which carry a quality designation and which are otherwise attractive or unspoilt will in general be more sensitive, while those which are less attractive or already affected by significant visual detractors and disturbance will be generally less sensitive.
- M8 The magnitude of change is the scale, extent and duration of change to a landscape arising from the proposed development and was assessed using the criteria in Table LE3.
- M9 Landscape/townscape effects were assessed in terms of the interaction between the magnitude of the change brought about by the development and the quality, value & sensitivity of the landscape resource affected. The landscape/townscape effects can be either beneficial, adverse or neutral. Landscape effects can be direct (i.e. impact on physical features, e.g. landform, vegetation, watercourses etc.), or indirect (i.e. impact on landscape character as a result of the introduction of new elements within the landscape). Direct visual effects result from changes to existing views.
- M10 In this way, landscapes/townscapes of the highest sensitivity, when subjected to a high magnitude of change from the proposed development, are likely to give rise to 'substantial' landscape/townscape effects which can be either adverse or beneficial. Conversely, landscapes of low sensitivity, when subjected to a low magnitude of change from the proposed development, are likely to give rise to only 'slight' or neutral landscape effects. Beneficial landscape effects may arise from such things as the creation of new landscape features, changes to management practices and improved public access. For the purpose of this assessment the landscape/townscape effects have been judged at completion of the development and in year 15. This approach acknowledges that landscape/townscape effects can reduce as new planting/mitigation measures become established and achieve their intended objectives.

VISUAL EFFECTS

- M11 Visual effects are concerned with people's views of the landscape/townscape and the change that will occur. Like landscape effects, viewers or receptors are categorised by their sensitivity. For example, views from private dwellings are generally of a higher sensitivity than those from places of work.

- M12 In describing the content of a view the following terms are used:
- No view - no views of the development;
 - Glimpse - a fleeting or distant view of the development, often in the context of wider views of the landscape;
 - Partial - a clear view of part of the development only;
 - Filtered - views to the development which are partially screened, usually by intervening vegetation - the degree of filtering may change with the seasons;
 - Open - a clear view to the development.
- M13 The sensitivity of the receptor varies according to its susceptibility to a particular type of change, or the value placed on it (e.g. views from a recognised beauty spot will have a greater sensitivity). Visual sensitivity was assessed using the criteria in Table VE1.
- M14 The magnitude of change is the degree in which the view(s) may be altered as a result of the proposed development and will generally decrease with distance from its source, until a point is reached where there is no discernible change. The magnitude of change in regard to the views was assessed using the criteria in Table VE2.
- M15 Visual effects were then assessed in terms of the interaction between the magnitude of the change brought about by the development and also the sensitivity of the visual receptor affected.
- M16 As with landscape effects, a high sensitivity receptor, when subjected to a high magnitude of change from the proposed development, is likely to experience 'substantial' visual effects which can be either adverse or beneficial. Conversely, receptors of low sensitivity, when subjected to a slight magnitude of change from the proposed development, are likely to experience only 'slight' or neutral visual effects, which can be either beneficial or adverse.
- M17 Unless specific slab levels of buildings have been specified, the assessment has assumed that slab levels will be within 750mm of existing ground level.

MITIGATION AND RESIDUAL EFFECTS

- M18 Mitigation measures are described as those measures, including any process or activity, designed to avoid, reduce and compensate for adverse landscape and/or visual effects resulting from the proposed development.
- M19 In situations where proposed mitigation measures are likely to change over time, as with planting to screen a development, it is important to make a distinction between any likely effects that will arise in the short-term and those that will occur in the long-term or 'residual effects' once mitigation measures have established. In this assessment, the visual effects of the development have been considered at completion of the entire project and at 15 years thereafter.
- M20 Mitigation measures can have a residual, positive impact on the effects arising from a development, whereas the short-term impact may be adverse.

ASSESSMENT OF EFFECTS

- M21 The assessment concisely considers and describes the main landscape/townscape and visual effects resulting from the proposed development. The narrative text demonstrates the reasoning behind judgements concerning the landscape and visual effects of the proposals. Where appropriate, the text is supported by tables which summarise the sensitivity of the views/landscape/townscape, the magnitude of change and describe any resulting effects.

CUMULATIVE EFFECTS

- M22 Cumulative effects are *'the additional changes caused by a proposed development in conjunction with other similar developments or as the combined effect of a set of developments, taken together.'*
- M23 In carrying out landscape assessment it is for the author to form a judgement on whether or not it is necessary to consider any planned developments and to form a judgement on how these could potentially affect a project.

ZONE OF THEORETICAL VISIBILITY (ZTV)

- M24 A ZTV map can help to determine the potential visibility of the site and identify those locations where development at the site is likely to be most visible from the surrounding area. Where a ZTV is considered appropriate for a proposed development the following methodology is used.
- M25 The process is in two stages, and for each, a digital terrain model ('DTM') using Key TERRA-FIRMA computer software is produced and mapped onto an OS map. The DTM is based on Ordnance Survey Landform Profile tiles, providing a digital record of existing landform across the UK, based on a 10 metre grid. There is the potential for minor discrepancies between the DTM and the actual landform where there are topographic features that are too small to be picked up by the 10 metre grid. A judgement will be made to determine the extent of the study area based on the specific site and the nature of the proposed change, and the reasons for the choice will be set out in the report. The study area will be determined by local topography but is typically set at 7.5km.
- M26 Different heights are then assigned to significant features, primarily buildings and woodland, thus producing the first stage of an 'existing' ZTV illustrating the current situation of the site and surrounding area. This data is derived from OS Open Map Data, and verified during the fieldwork, with any significant discrepancies in the data being noted and the map adjusted accordingly. Fieldwork is confined to accessible parts of the site, public rights of way, the highway network and other publicly accessible areas.
- M27 The second stage is to produce a 'proposed' ZTV with the same base as the 'existing' ZTV. The proposed development is introduced into the model as either a representative spot height, or a series of heights, and a viewer height of 1.7m is used. Illustrating the visual envelope of the proposed development within the specific site.
- M28 The model is based on available data and fieldwork and therefore may not take into account all development or woodland throughout the study area, nor the effect of smaller scale planting or hedgerows. It also does not take into account areas of recent or continuous topographic change from, for instance, mining operations.

VISUALISATION TYPE METHODOLOGY

- M29 The photographs and visualisations within this report have been prepared in general conformance with the Landscape Institute's Technical Guidance Note 06/19. The 'types', as set out within the Guidance, comprise the following:
- Type 1 - annotated viewpoint photographs;
 - Type 2 - 3D wireline / model;
 - Type 3 - photomontage / photowire;
 - Type 4 - photomontage / photowire (survey / scale verifiable).
- M30 Photographs were taken with a digital camera with a lens that approximates to 50mm, to give a similar depth of view to the human eye. In some cases images have been

joined together to form a panorama. The prevailing weather and atmospheric conditions, and any effects on visibility are noted. Images are displayed at the most appropriate size, taking into account the published guidance, legibility at A3 paper size, and context (which is often shown for illustrative purposes only), and allows for enlarged scale printing if required.

- M31 The Guidance Note advocates a proportionate and reasonable approach, which includes professional judgement, in order to aid informed decision making.
- M32 The determination of the suitable Visualisation Type to aid in illustrating the effects of the scheme, has been determined by a range of factors as set out below, including the timing of the project, the technical expertise, and costs involved.
- M33 Where it is deemed suitable or necessary to utilise the Visualisation Types set out within the Guidance Note, the table below has been used to determine which Visualisation Type is most appropriate to the project, unless otherwise specified within the report.
- M34 The table below (based on Table 1 within the Guidance Note) sets out the intended purpose and user of the report, and the Likely Level of Effect. The Likely Level of Effect is based on Tables LE4 and VE3 in this methodology, and takes into consideration the type and nature of the proposed development, as well as the sensitivity of the host environment and key visual receptors. The Likely Level of Effect is based on an initial consideration of the landscape and visual effects of the project as a whole, and the subsequent assessment may conclude a lesser or higher level of overall effect, once completed. Table VMT also provides an indication as to the appropriate Visualisation Type, noting that it is not a fixed interpretation and that professional judgement should always be applied.
- M35 Additional photographs (which do not conform to any Type) may be included to illustrate the character of the landscape/townscape, or to illustrate relevant characteristics, for example the degree and nature of intervening vegetation, or reciprocal views from residential properties.

Table VTM		VISUALISATION TYPE METHODOLOGY				
		Type 1	Type 2	Type 3	Type 4	
User, Purpose, and Likely Level of Effect	A	Evidence submitted to most Public Inquiries, most planning applications for EIA development accompanied by Landscape and Visual ES Chapters.				
		Neutral	Negligible	Slight	Moderate	Substantial
	B	Planning applications for most non-EIA development accompanied by LVIA/LVA, where there are concerns about landscape and visual effects and effective mitigation may be required. Some Landscape and Visual ES Chapters.				
		Neutral	Negligible	Slight	Moderate	Substantial
C	Planning applications where the character and appearance of the development is a material consideration, but where a LVIA/LVA may not be required.					
	Neutral/Negligible/Slight		Moderate	Substantial		
D	To inform the iterative process of assessment and design with client, and/or pre-application consultations with the competent authority.					
	Neutral/Negligible/Slight/Moderate			Substantial		

Table LE 1

LANDSCAPE / TOWNSCAPE QUALITY AND VALUE

	Very High	High	Medium	Low
Description of Landscape/Townscape Quality and Value	<p>Landscape Quality: Intact and very attractive landscape which may be nationally recognised/designated for its scenic beauty. e.g. National Park, Area of Outstanding Natural Beauty or World Heritage Site.</p> <p>Townscape Quality: A townscape of very high quality which is unique in its character, and recognised nationally/internationally, e.g. World Heritage Site</p> <p>Value: Very high quality landscape or townscape with Statutory Designation for landscape/townscape quality/ value, e.g. National Park, World Heritage Site, Registered Park or Garden. Contains rare elements or significant cultural/historical associations.</p>	<p>Landscape Quality: A landscape, usually combining varied topography, historic features and few visual detractors. A landscape known and cherished by many people from across the region. e.g. County Landscape Site such as a Special Landscape Area.</p> <p>Townscape Quality: A well designed townscape of high quality with a locally recognised and distinctive character e.g. Conservation Area</p> <p>Value: High quality landscape/townscape or lower quality landscape with un-fettered public access, (e.g. commons, public park) or with strong cultural associations. May have important views out to landmarks/designated landscapes and few detracting features. May possess perceptual qualities of tranquility or wildness.</p>	<p>Landscape Quality: Non-designated landscape area, generally pleasant but with no distinctive features, often displaying relatively ordinary characteristics. May have detracting features.</p> <p>Townscape Quality: A typical, pleasant townscape with a coherent urban form but with no distinguishing features or designation for quality.</p> <p>Value: An ordinary landscape/townscape of local value which may have some detracting features. No recognised statutory designations for landscape/townscape quality. A landscape which may have limited public access and/ or have pleasant views out, or be visible in public views.</p>	<p>Landscape / Townscape Quality: Unattractive or degraded landscape/townscape, affected by numerous detracting elements e.g. industrial areas, infrastructure routes and un-restored mineral extractions.</p> <p>Value: Landscape/townscape generally of lower quality. A landscape with limited public access, no designations or recognised cultural significance. Limited public views.</p>

Table LE 2

LANDSCAPE / TOWNSCAPE SENSITIVITY

	Very High	High	Medium	Low
Description of Sensitivity	<p>A landscape/townscape with a very low ability to accommodate change such as a nationally designated landscape.</p> <p>A landscape/townscape with limited ability to accommodate change because such change may lead to some loss of valuable features or elements. Development of the type proposed could potentially be discordant with the character of the landscape/townscape.</p> <p>A landscape/townscape with reasonable ability to accommodate change. Change may lead to a limited loss of some features or characteristics. Development of the type proposed would not be discordant with the character of the landscape/townscape.</p> <p>A landscape/townscape with good ability to accommodate change. Change would not lead to a significant loss of features or characteristics, and there would be no significant loss of character or quality. Development of the type proposed would not be discordant with the landscape/townscape in which it is set and may result in a beneficial change.</p>			

Table LE 3 LANDSCAPE / TOWNSCAPE MAGNITUDE OF CHANGE

	Substantial	Moderate	Slight	Negligible	Neutral
Description of the Change predicted	Total loss of or significant impact on key characteristics, features or elements				
	Partial loss of or impact on key characteristics, features or elements				
	Minor loss of or alteration to one or more key landscape/ townscape characteristics, features or elements				
	Very minor loss or alteration to one or more key landscape/ townscape characteristics, features or elements				
	No loss or alteration of key landscape/ townscape characteristics, features or elements				

Table LE 4 LANDSCAPE / TOWNSCAPE EFFECTS

	Substantial	Moderate	Slight	Negligible	Neutral
Description of the Effect	<p>The proposals will alter the landscape/ townscape in that they:</p> <ul style="list-style-type: none"> will result in substantial change in the character, landform, scale and pattern of the landscape/townscape; are visually intrusive and would disrupt important views; are likely to impact on the integrity of a range of characteristic features and elements and their setting; will impact a high quality or highly vulnerable landscape; cannot be adequately mitigated. 				
	<p>The proposals:</p> <ul style="list-style-type: none"> noticeably change the character, scale and pattern of the landscape/townscape; may have some impacts on a landscape/townscape of recognised quality or on vulnerable and important characteristic features or elements. are a noticeable element in key views; not possible to fully mitigate. 				
	<p>The proposals:</p> <ul style="list-style-type: none"> do not quite fit the landform and scale of the landscape/townscape and will result in relatively minor changes to existing landscape character; will impact on certain views into and across the area; mitigation will reduce the impact of the proposals but some minor residual effects will remain. 				
	<p>The proposals:</p> <ul style="list-style-type: none"> complement the scale, landform and pattern of the landscape/townscape; development may occupy only a relatively small part of the Site; maintain the majority of landscape features; incorporates measures for mitigation to ensure the scheme will blend in well with the landscape/townscape and mitigates any loss of vegetation. 				
	<p>The proposals:</p> <ul style="list-style-type: none"> maintain existing landscape/townscape character; has no impact on landscape features, such as trees, hedgerows, watercourses, etc.; utilises a highly degraded landscape or brownfield site. 				

Footnote:

1. Each level (other than neutral) of change identified can be either regarded as 'beneficial' or 'adverse'. The above table relates to adverse landscape effects, however where proposals complement or enhance landscape character, these will have a comparable range of beneficial landscape effects.

Table VE 1

VISUAL SENSITIVITY

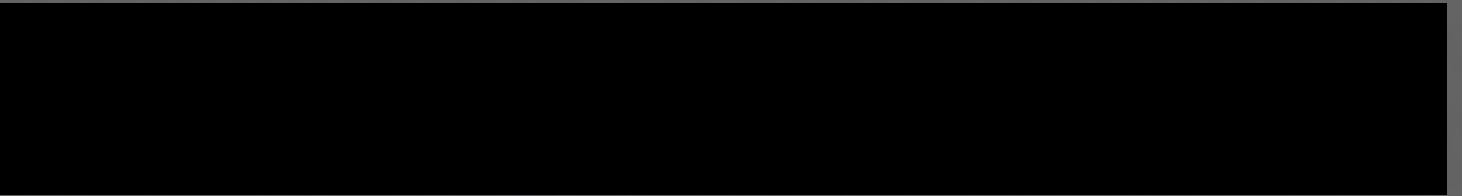
	High	Medium	Low
Description of the Receptor	<p>Residential properties with predominantly open views from windows, garden or curtilage. Views will normally be from ground and first floors and from two or more windows of rooms mainly in use during the day.</p> <p>Users of Public Rights of Way in sensitive or generally unspoilt areas.</p> <p>Predominantly non-motorised users of minor or unclassified roads in the countryside.</p> <p>Views from within an Area of Outstanding Natural Beauty, National Park, World Heritage Site or Conservation Area and views for visitors to recognised viewpoints or beauty spots.</p> <p>Users of outdoor recreational facilities with predominantly open views where the purpose of that recreation is enjoyment of the countryside - e.g. Country Parks, National Trust or other access land etc.</p>	<p>Residential properties with partial views from windows, garden or curtilage. Views will normally be from first floor windows only, or an oblique view from one ground floor window, or may be partially obscured by garden or other intervening vegetation.</p> <p>Users of Public Rights of Way in less sensitive areas or where there are significant existing intrusive features.</p> <p>Users of outdoor recreational facilities with restricted views or where the purpose of that recreation is incidental to the view e.g. sports fields.</p> <p>Schools and other institutional buildings, and their outdoor areas.</p> <p>Users of minor or unclassified roads in the countryside, whether motorised or not.</p>	<p>People in their place of work.</p> <p>Users of main roads or passengers in public transport on main routes.</p> <p>Users of outdoor recreational facilities with restricted views and where the purpose of that recreation is unrelated to the view e.g. go-karting track.</p>

Table VE 2		VISUAL MAGNITUDE OF CHANGE				
		Substantial	Moderate	Slight	Negligible	Neutral
Description of the Change predicted	Large and dominating changes which affect a substantial part of the view.					
	Clearly perceptible and noticeable changes within a significant proportion of the view.					
	Small changes to existing views, either as a minor component of a wider view, or smaller changes over a larger proportion of the view(s).					
	Very minor changes over a small proportion of the view(s).					
	No discernible change to the view(s).					

Table VE 3		VISUAL EFFECTS				
		Substantial	Moderate	Slight	Negligible	Neutral
Description of the Effects	The proposals would have a significant impact on a view from a receptor of medium sensitivity, or less damage (or improvement) to a view from a highly sensitive receptor, and would be an obvious or dominant element in the view.					
	The proposals would impact on a view from a medium sensitive receptor, or less harm (or improvement) to a view from a more sensitive receptor, and would be a readily discernible element in the view.					
	The proposals would have a limited effect on a view from a medium sensitive receptor, but would still be a visible element within the view, or a greater effect on a view from a receptor of lower sensitivity.					
	The proposals would result in a negligible change to the view but would still be discernible.					
	No change in the view.					

Footnote:

1. Each level (other than neutral) of change identified can be either regarded as 'beneficial' or 'adverse'.



From: Stoney, Stephen <[REDACTED]>
Sent: 08 December 2022 16:49
To: Strategic Planning Consultations; Strategic Planning
Cc: [REDACTED]
Subject: FW: Stafford Borough Local Plan 2020-2040: Preferred Options
Attachments: Preferred-Options-Consultation-Response-Form Combined.pdf

Stephen Stoney | Technical Director
Wardell Armstrong LLP



Please find attached the consultation response on behalf of the Baden Hall Estate owners and Dean Lewis Estates to the above.

Please acknowledge receipt as soon as possible.

Stephen Stoney | Technical Director



From: Homer, Mark <[REDACTED]>
Sent: 06 December 2022 15:26
To: Stoney, Stephen <[REDACTED]>
Subject: Stafford Borough Local Plan 2020-2040: Preferred Options

Mark Homer | Senior Planning Technician
Wardell Armstrong LLP



Contact Details

Full name (required): *Stephen Stoney Technical Director*

Email (required): [REDACTED]

Tick the box that is relevant to you (required):

- Statutory Bodies and Stakeholders
- Agents and Developers**
- Residents and General Public
- Prefer not to say

Organisation or Company Name (if applicable): *Wardell Armstrong*

[REDACTED]

Tick the box that is relevant to you:

(This is a non-mandatory question but helps us understand the demographic of our respondents.)

- Under 18
- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65+
- Prefer not to say / not applicable**

Do you want to be added to our Local Plan consultation database to be notified about future local plan updates?

[REDACTED]

Contents

The Local Plan Preferred Options includes the topics listed below.

Each topic has a series of standard questions in order for you to provide a response. You do not have to respond to each of the topics or answer all of the questions. The page numbers below relate to the page the topic starts in this consultation form.

- **Vision and Objectives** - page 5
- **Development Strategy and Climate Change Response** - page 6
- **Meecebrook Garden Community** - page 9
- **Site Allocation Policies** - page 10
- **Economy Policies** - page 14
- **Housing Policies** - page 16
- **Design and Infrastructure Policies** - page 18
- **Environment Policies** - page 19
- **Connections** - page 20
- **Evidence Base** - page 21
- **General Comments** - page 22

All of the local plan documents and the Local Plan 2020-2040: Preferred Options document are available here: <https://www.staffordbc.gov.uk/local-plan>

Vision and Objectives

Q1. There are eight objectives for the local plan to achieve the vision of:

"A prosperous and attractive borough with strong communities."

Of the following objectives which 3 are the most important to you?

Please make your choice from the list of objectives below. (Maximum of 3 to be selected)

Local Plan Preferred Options document reference: Page 12

Contribute to Stafford Borough being net zero carbon by ensuring that development mitigates and adapts to climate change and is future proof.

To develop a high value, high skill, innovative and sustainable economy.

To strengthen our town centres through a quality environment and flexible mix of uses.

- ✓ **To deliver sustainable economic and housing growth to provide income and jobs.**
- ✓ **To deliver infrastructure led growth supported by accessible services and facilities.**
- ✓ **To provide an attractive place to live and work and support strong communities that promote health and wellbeing.**

To increase and enhance green and blue infrastructure in the borough and to enable greater access to it while improving the natural environment and biodiversity.

To secure high-quality design.

Development Strategy and Climate Change Response

Q2. The development strategy and climate change response chapter includes the policies below.

Do you agree with each of the policies in this chapter?

Select Yes or No for each of the policies and then use the box below each policy to add additional comments.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: Pages 19 to 40

Policy 1. Development strategy (which includes the total number of houses and amount of employment land to be allocated and the Stafford and Stone settlement strategies)

Yes / No

Policy 1 Comments:

See attached Consultation Response, paragraphs;

4.1.1 – 4.1.22

5.1.1 – 5.1.11

Policy 2. Settlement Hierarchy (Tier 1: Stafford, Tier 2: Stone, Tier 3: Meecebrook, Tier 4: Larger settlements, Tier 5: Smaller settlements)

Yes / No

Policy 2 Comments:

See attached Consultation Response, paragraphs;

5.1.12 – 5.1.15

Policy 3. Development in the open countryside - general principles

Yes / No

Policy 3 Comments:

Policy 4. Climate change development requirements

Yes / No

Policy 4 Comments:

See attached Consultation Response, paragraphs;
5.1.16 – 5.1.17

Policy 5. Green Belt

Yes / No

Policy 5 Comments

Policy 6. Neighbourhood plans

Yes / No

Policy 6 Comments:

Meecebrook Garden Community

Q3. The local plan proposes a new garden community called Meecebrook close to Cold Meece and Yarnfield. This new community is proposed to deliver housing, employment allocations, community facilities, including new schools, sport provision and health care facilities, retail and transport provision, which includes a new railway station on the West Coast Main Line, and high quality transport routes.

Do you agree with the proposed new garden community?

Yes / No

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: Pages 41 to 45

Comments:

See attached Consultation Response, paragraphs;

6.1.1 – 6.1.24

Site Allocation Policies

Q4. The Stafford Borough Local Plan 2020 - 2040 proposes allocations for both housing and employment to meet the established identified need.

The site allocation policies chapter includes the policies below for housing and employment allocations.

Do you agree with the proposed allocations?

Select Yes or No for each of the following policies and then use the box below each policy to add additional comments.

Explain your reasoning and add any evidence to justify your response. Please provide details of alternative locations for housing and employment growth if you consider this is appropriate.

Ensure any comments relate to the policy comment box you are completing.

If you do want to submit a new site for consideration through the local plan process, we are still accepting sites through the Call for Site process, details are available here: <https://www.staffordbc.gov.uk/call-sites-including-brownfield-land-consultation>

Local Plan Preferred Options document reference: Pages 47 to 56 and appendix 2.

Policy 9. North of Stafford

Yes / No

Policy 9 Comments:

Policy 10. West of Stafford

Yes / No

Policy 10 Comments:

Policy 11. Stafford Station Gateway

Yes / No

Policy 11 Comments:

Policy 12. Other housing and employment land allocations.

(In your response, please specify which particular site you are referring to, if relevant.)

Yes / No

Policy 12 Comments:

Q5. The Stafford Borough Local Plan 2020 - 2040 proposes to allocate land for Local Green Space and Countryside Enhancement Areas throughout the borough.

The policies which relate to these proposals are listed below.

Do you agree with the proposed allocations?

Select yes or no for each of the policies and then use the box below each policy to add additional comments.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: Pages 56 to 59 and appendix 2.

Policy 13. Local Green Space

(In your response, please specify which particular site you are referring to, if relevant)

Yes / No

Policy 13 Comments:

Policy 14. Penk and Sow Countryside Enhancement Area (Stafford Town)

Yes / No

Policy 14 Comments:

Policy 15. Stone Countryside Enhancement Area

Yes / No

Policy 15 Comments:

Economy Policies

The Economy Policies chapter contains policies that seek to protect employment land and support economic growth within the Borough.

Q6. The local plan seeks to protect previously allocated and designated industrial land and support home working and small-scale employment uses.

The relevant policies are: 16, 17 and 18.

Do you agree with these policies?

Yes / No

Select Yes or No and then use the box to add additional comments. If referring to a specific policy, please include the policy number.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: pages 61 to 65

Comments:

Q7. The Stafford Borough Plan proposes policies around the town centres uses, agriculture and forestry development, tourism development and canals.

The relevant policies are: 19, 20, 21 and 22.

Do you agree with these policies?

Yes / No

Select Yes or No and then use the box below to add additional comments. If referring to a specific policy, please include the policy number.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: pages 65 to 71

Comments:

See attached Consultation Response, paragraphs;

7.1.1 – 7.1.3

Housing Policies

The Housing Policies chapter contains policies that seek to provide for identified need across the borough and support homeowners.

Q8. The local plan proposed a policy (Policy 23) on affordable housing.

Do you agree with this policy?

Yes / No

Select yes or no and then use the box below to add additional comments.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: pages 74 to 76

Comments:

See attached Consultation Response, paragraphs;

8.1.1 – 8.1.3

Q9. The local plan proposes a policy (Policy 30) to help meet identified local need for pitches for Gypsies and Travellers. There are 2 new proposed sites; one near Hopton and the other near Weston.

Do you agree with this policy?

Yes / No

Select yes or no and then use the box below to add additional comments. In your response, please specify which particular site you are referring to, if relevant.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: pages 84 to 86

Comments:

Q10. The local plan proposes policies around homes for life, rural exception sites, new rural dwellings, replacement dwellings, extension of dwellings, residential subdivision and conversion, housing mix and density, residential amenity and extension to the curtilage of a dwelling.

The relevant policies are: 24, 26, 27, 28, 29, 21, 31, 32 and 33.

Do you agree with these policies?

Yes / No

Select yes or no and then use the box below to add additional comments. If referring to a specific policy, please include the policy number.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: pages 73 to 89

Comments:

See attached Consultation Response, paragraphs;
8.1.1 – 8.1.4

Design and Infrastructure Policies

Q11. The design and infrastructure chapter contains policies on urban design general principles, architectural and landscape design, infrastructure to support new development, electronic communications, protecting community facilities and renewable and low carbon energy.

The relevant policies are: 34, 25, 36, 37, 38, 39 and 40.

Do you agree with these policies?

Yes / No

Select yes or no and then use the box below to add additional comments. If referring to a specific policy, please include the policy number.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: Pages 91 to 99.

Comments:

Environment Policies

Q12. The environment policies chapter contains policies on the historic environment, flood risk, sustainable drainage, landscapes, Cannock Chase Area of Outstanding Natural Beauty (AONB), Green and blue infrastructure network, biodiversity, Special Areas of Conservation (SAC), Trees, Pollution and Air Quality.

The relevant policies are: 31, 42, 43, 44, 45, 46, 47, 48, 49, 50 and 51.

Do you agree with these policies?

Yes / No

Select yes or no and then use the box below to add additional comments. If referring to a specific policy, please include the policy number.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: Pages 101 to 119.

Comments:

See attached Consultation Response, paragraphs;

9.1.1

Connections

Q13. The connections policies chapter contains policies on transport and parking standards.

The relevant policies are: 52 and 53

Do you agree with these policies?

Yes / No

Select yes or no and then use the box below to add additional comments. If referring to a specific policy, please include the policy number.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: Pages 121 to 124.

Comments:

Evidence Base

To support the Local Plan 2020-2040 an evidence base has been produced.

The evidence base is available to view on our website here:

www.staffordbc.gov.uk/new-lp-2020-2040-evidence-base

Q14. Have we considered all relevant studies and reports as part of our local plan?

Yes / No

Select yes or no and then use the box below to add additional comments.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Comments:

Q15. Do you think there is any further evidence required?

Yes / No

Select yes or no and then use the box below to add additional comments.

If you think additional evidence is needed, please state what you think should be added and explain your reasoning.

Ensure any comments relate to the policy comment box you are completing.

Comments:

General Comments

If you have any further comments to make on the Local Plan Preferred Options document and evidence base, please use the box below.

If you need further space to add comments, please add pages to the end of the consultation form and reference which question you are answering.

Thank you for taking the time to complete this consultation form.

Completed forms can be submitted by email to:
strategicplanningconsultations@staffordbc.gov.uk

Or returned via post to: Strategic Planning and Placemaking, Stafford Borough Council, Civic Centre, Riverside, Stafford, ST16 3AQ

The consultation closes at 12 noon on Monday 12 December 2022, comments received after this date may not be considered.

**Stafford Borough Council Local Plan Review
Preferred Options 2020 -2040**

(2nd Regulation 18 Consultation)

Consultation response

by



and



December 2022

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1 INTRODUCTION

1.1 Context

- 1.1.1 Dean Lewis Estates is a professional strategic land promotion company specialising in the delivery of mixed-use residential development and associated community infrastructure.
 - 1.1.2 A majority of the land that sits within the Meecebrook Garden Community proposal is the Baden Hall Estate and is also the subject of a Promotion Agreement with the professional Strategic Land Promoter, Dean Lewis Estates. Wardell Armstrong act as professional planning advisers to both the Baden Hall Estate owners and operators and Dean Lewis Estates Ltd.
 - 1.1.3 This submission provides Dean Lewis Estates response to and representations in respect of the Stafford Borough Local Plan Issues and Options consultation 2020 -2040 (2nd Regulation 18 Local Plan Consultation).
 - 1.1.4 This submission focuses on the key planning policy considerations for the Stafford Local Plan Review in order to ensure that a suitable policy framework is enshrined with the adopted Local Plan which enables successful delivery of the Garden Community.
 - 1.1.5 Successful delivery of the Meecebrook Garden Community, for 3000 dwellings and circa 15ha of employment and essential community infrastructure, within the plan period (2020 – 2040) is integral to the successful implementation of the Local Plan development strategy and policies. It will enable Stafford Borough to meet the identified full objectively assessed needs for housing (OAN), employment and social and environmental advancements during the twenty-year plan period.
-

2 LEGAL COMPLIANCE

2.1 Duty to Cooperate

- 2.1.1 The Duty to Cooperate is a legal requirement established through Section 33(A) of the Planning and Compulsory Purchase Act 2004, as amended by Section 110 of the Localism Act. It requires local authorities to engage constructively, actively and on an ongoing basis with neighbouring authorities on cross-boundary strategic issues throughout the process of Plan preparation. A failure to demonstrably execute the duty to cooperate cannot be rectified through modifications.
 - 2.1.2 Stafford Borough adjoins authorities within this area of the West Midlands and shares a functional relationship with wider area in the context of its housing market area. Significant unmet housing need and unmet demand exists in pockets of the housing market area as does deprivation.
 - 2.1.3 The plan should ensure that the unmet housing needs within the HMA is properly addressed with neighbouring authorities under the auspices of the duty to cooperate, throughout the evolution of the Review Local Plan.
 - 2.1.4 Clear evidence is required to demonstrate that Stafford Borough Council Local Plan has executed its' duty to cooperate by working with neighbouring authorities in order to address the cross boundary strategic issue of unmet housing needs.
-

3 SPATIAL PORTRAIT OF STAFFORD BOROUGH

- 3.1.1 The borough is predominantly rural, covering approximately 230 square miles. It is the 238th most densely populated lower tier English local authority, of 317 such authorities. It has two main towns, Stafford and Stone and many villages and hamlets.
- 3.1.2 The interrelationships between the wider borough, the county town of Stafford and market town of Stone with the Midlands and North Staffordshire conurbations is highly influential as excellent transport links exist, including the M6, West Coast Mainline rail and in future High Speed 2 (HS2).
- 3.1.3 Although the borough is relatively self-contained in terms of places being capable of supporting communities enabling them to meet their day to day needs locally, there are important economic linkages with these wider economic hubs which help to sustain and enable communities with the borough to thrive.
- 3.1.4 However, the geographical context of the borough, being predominately rural, presents challenges in terms of achieving sustainable growth of communities in the most environmentally sensitive manner.
- 3.1.5 The key challenges facing the borough during the forthcoming plan period is the ability to meet housing needs both in the market and affordable sector, particularly against the backdrop of the rising cost of housing and trend of ratio for workplace-based earnings set against house price affordability increasing in the borough to around 7.71. An added dimension of the housing market challenges in the borough is anticipated rise in residents aged over 64 years of age being expected to increase by 37.4% to 43,015 by 2040.
- 3.1.6 Stafford Borough is about average among UK local authorities for the productiveness of its economy, although in comparison with other regions in northern Europe it is relatively weak. The borough has seen above average increases in employment and in housebuilding. The challenge for the plan is to support the continued strengthening of the local economy while also continuing to meet housing needs and balancing those challenges with the protection and enhancement of the natural environment.
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- 3.1.7 The borough has a rich natural environment. This includes the nationally designated Cannock Chase AONB, four Special Areas of Conservation (SACs), three Ramsar sites and 15 SSSIs. There are also numerous locally designated sites. An important challenge for the new Local Plan will be to maintain and enhance the borough's natural environment whilst also delivering development needs. Integrating appropriate measures into new development, including nature-based solutions to climate change, will reduce the impact of climate change.
- 3.1.8 Whilst, what is termed a 'Policy On' constraint, the borough also has two areas of Green Belt. Extensive parts of the north of the borough lie within the North Staffordshire Green Belt while part of the south-eastern area of the borough is designated as part of the West Midlands Green Belt. The policy choice of the borough not to release Green Belt whenever possible is endorsed by Dean Lewis Estates.
- 3.1.9 Maximising access to services and reducing the need to travel is important aspect of achieving sustainable development in the borough. The availability of public transport and walking and cycling facilities which adequately serve new development will be an important policy objective.
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4 SUSTAINABILITY APPRAISAL

- 4.1.1 Section 19 of the 2004 Planning and Compulsory Purchase Act, requires that Local Plans are tested by way of a Sustainability Appraisal (SA), thereby meeting the requirements of the Environmental Assessment of Plans and Programmes Regulations 2004.
- 4.1.2 The SA should be carried out at each stage of the Plan's preparation. Stafford Borough Council undertook a SA on the Issues and Options (1st Stage Regulation 18 Issues and Options Consultation in 2019. Dean Lewis Estates submitted representations in respect of the SA and these were independently produced by JAM consult Ltd in respect of Sustainability Appraisal Matters.
- 4.1.3 Further assessment of the October 2022 Interim SA confirms that the assessment of reasonable development alternatives is now robust and well-reasoned.
- 4.1.4 The Local Plan promotes that the Meecebrook location is well connected, within an established employment corridor and can provide the necessary homes, local services and facilities to deliver a future sustainable community. This is on the basis that the potential for the site to deliver sustainable development has been fully recognised and supported within the SA process.
- 4.1.5 The Sustainability Appraisal (SA) of the Local Plan methodology used has utilised the assessment of all reasonable alternatives to be assessed in a comparable way and to ensure that options, which are outside the Council's historic approach to the location of growth, are judged on their merits in terms of the delivery of sustainable development. This approach has enabled the refined options to be fully justified.
- 4.1.6 In considering options for site allocations, the Sustainable Settlement Hierarchy has properly not been applied too rigidly. Sites that fall outside the hierarchy, but which offer a viable and deliverable solution for sustainable development have also considered in a comprehensive way. The Settlement Hierarchy has properly been a
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guide to the allocation of sites and not a constraint to sustainable growth.

- 4.1.7 The SA methodology used has ensured a balanced approach to the consideration of constraints and opportunities and give appropriate recognition to the positive and negative impacts of all options. The SA does not focus too narrowly but instead acknowledges the geographical scope of the Plan, the wider benefits of locations and sites, and their potential for the future growth of the Borough. The assessment has also considered how development will meet the core principles of the NPPF and the social, economic and environmental dimensions of sustainable development, as well as meeting the objectively assessed needs of the Borough.
- 4.1.8 It is positive that the SA assessment relates to sites including those that fall outside the traditional settlement hierarchy but that offer potential to deliver strategic sustainable development by ensuring the effective use of land and providing sufficient land for additional growth, the notable example being the Meecebrook Garden Community.
- 4.1.9 The appraisal uses both qualitative and quantitative approaches, as appropriate, and that the results are supported by suitable evidence. Emphasis has not been simply on a 'tick box' exercise but is comprehensively supported by suitable commentaries that demonstrates the evidence and analysis to support the decisions made in order to fully support the Local Plan strategy for development.
- 4.1.10 The following provides the key aspects of how the SA has appropriately informed the Local Plan Strategy in the manner required by the NPPF (Para 32) and NPPG in relation to Plan-making. This is set in the context of being adequate, focussed and justified against a robust evidence base. In this context the relationship between the SA and the Plan, the latter's strategy has been fully justified taking in to account reasonable alternatives based on proportionate evidence.
- 4.1.11 The Development Strategy of the Local Plan is set out through Policy 1; the Settlement hierarchy though Policy 2; and the Meecebrook site allocation at Policy 7. Section 1.6 of the Plan explains how 'a range
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of different scenarios for housing and employment growth have been tested'. It also makes clear (at 1.22) that the Meecebrook allocation enables the Council to look ahead to meeting the borough's housing needs in the future (NPPF Para.22)

- 4.1.12 The Plan and SA Scope are clearly set out in Sections 2 and 3 of the SA. This helpfully references how the SA framework has been appropriately structured including developed topic areas since the Plan Issues & Options stage, respecting consultation comments.
- 4.1.13 The SA Section 4 at figure 4.1 provides a SA process overview, and at 4.1.2 sets out the critical process stages of
- Explaining the reasons for selecting and defining the alternative growth scenarios dealt with (Section 5) – with supplementary analysis in Appendices IV and V
 - Presenting an appraisal of the reasonable alternatives / growth scenarios (Section 6)
 - Explaining the reasons for selecting the preferred option (Section 7)
- 4.1.14 These are dealt with appropriately in the context of the legal requirement to examine reasonable alternatives taking in to account the objectives of the Plan and its Spatial Strategy and recognition of NPPF principles. Spatial strategy alternatives became appropriate growth scenarios.
- 4.1.15 Figure 5.1 of the SA sets out the process used to establish robust reasonable growth scenarios as alternatives and Section 5.2 deals with quantum and distribution, making clear how these have been assessed.
- 4.1.16 The SA references at 5.2.36 onwards references 'giving detailed consideration to Garden Community options, with the development of seven options. 5.2.59 references the need to 'progress two well-established strategic development options ... Stafford Gateway and Meecebrook in recognition of the considerable development work to date'.
- 4.1.17 The SA Options at 5.3 sets out how 4 Strategic growth options were taken toward detailed assessment, of which Meecebrook was one.
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Section 5.4.7 sets out the conclusions on settlement scenarios identified in Appendix VI.

- 4.1.18 The SA report recognises it 'Must identify, describe, and evaluate the likely significant effects on the environment of implementing the plan policies and the reasonable alternatives, taking in to account the objectives ... of the plan (NPPG Para: 037 ID: 61-037-20190315). Section 5.5 of the SA describes in robust detail the Reasonable growth scenarios – 11 in number, including Scenarios 6, 6a, 7, 7a, 8 and 8a including Meecebrook. Spatial portraits are usefully included in the SA at pages 30-35 for clarity. Table 5.6 shows that Scenarios 1-3 fail to meet Plan objectives, so the reasonable alternatives reduce to 8 in number, 6 of which include Meecebrook.
- 4.1.19 Section 6 of the SA properly moves on to the reasonable Growth scenarios appraisal. Table 6.2 provides a clear rank of preference and categorisation across 13 named topics/social, environmental and economic effects. The RAG system of analysis is robust, as are the 13 indicators. A detailed analysis and commentary are provided on pages 38 and 39 of the SA, including the statement that Meecebrook 'provides a significant strategic opportunity'.
- 4.1.20 Section 7 of the SA is the process of selecting the preferred approach / growth scenario and Section 8 revisits Growth Scenario 6a for further analysis to ensure robustness and provided commentary on spatial and thematic policies. One of the starting assumptions in the finer grain appraisal is that Meecebrook is to deliver 24% of planned growth and provide for further development beyond this Plan period.
- 4.1.21 Section 9 Appraises the preferred options as a whole, with reference to the spatial strategy, thematic policies and conclusions in relation to the draft Local Plan. The detailed assessment against the 13 criteria then provides the overall conclusions at 9.15, with Meecebrook again highlighted as an ambitious major strategic opportunity. The Appendix 4 Strategic site options describes Meecebrook in significant detail, demonstrating that it is well understood and being supported in its development as a concept since 2019 by the Government's regeneration agency Homes England and provides a wealth of assessment and feasibility work to underpin it.
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4.1.22 In conclusion, the SA has achieved the objective of meeting the requirements clearly set out in Para 32 of the NPPF and meets the relevant legal requirements, underpinned by relevant and up-to-date evidence.

5 DEVELOPMENT STRATEGY & CLIMATE CHANGES RESPONSE

Q2. The development strategy and climate change response chapter includes the policies below. Do you agree with each of the policies in this chapter?

- 5.1.1 **Policy 1: 'Development strategy** (which includes the total number of houses and amount of employment land to be allocated and the Stafford and Stone settlement strategies)' **is supported in principle.**
- 5.1.2 The number of new homes and amount employment land identified as part Policy A of this policy (10,700 new homes and at least 80 ha of employment land over the plan period) is justified in the context of the evidence base and in particular the Stafford Borough Economic and Housing Development Needs Assessment (Lichfield's 2020) (EHDNA). Notably the evidence identifies that the development strategy for employment land is based on the EHDNA's core projection for 2020-2040 employment growth in the borough plus a 50% uplift to align with housing growth that is planned to be above baseline local housing needs.
- 5.1.3 It is essential therefore that the quantum of planned housing growth is commensurate with the scale of employment growth in order to enable the Borough is to meet its social, economic and environmental ambitions and to deliver sustainable growth over the plan period.
- 5.1.4 It is noted at paragraph 1.4 – of the reasoned justification to Policy 1 that,
- "it is intended that any unmet housing need from other authorities will be delivered at Meecebrook Garden Community. This, in turn, is predicated upon Meecebrook being able to deliver 3,000 homes within the plan period. If further evidence indicates that Meecebrook would deliver fewer than 3,000 homes within the plan period, then the quantum of unmet needs the borough is able to accommodate would likewise need to be reassessed".*
- 5.1.5 The suggested approach of effectively attributing all of the unmet need from other authority areas within the HMA is too simplistic. Given the geographic locations of main housing allocations within the
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emerging Local Plan it is evident that the household formation that will occur at Stafford, Stone and other rural service centres will inevitably include a component of unmet need household formation from outside of the borough. It is acknowledged that not all of the unmet housing growth cannot be accommodated at these locations and that the development of Meecebrook Garden Community will accommodate a significant proportion of this need. **The supporting text within policy 1 at para 1.4 should be refined to reflect this.**

5.1.6 **Policy 1, item B, Sub item 3** specifies that,

"The development of a new garden community at Meecebrook in accordance with Policies 7 and 8 which is estimated to deliver 3,000 homes by 2040 as part of a larger planned new community". **This policy for Meecebrook is supported.**

5.1.7 The allocation of Meecebrook is demonstrably deliverable for circa 3,000 new homes and 15ha of employment land and supporting community infrastructure within the plan period.

5.1.8 It is also notable that the existing hinterlands around the proposed Meecebrook allocation host a significant amount of existing established employment at Coldmeece. The development of the Garden Community will integrate well with this existing employment corridor along Swynnerton Road and will also help to sustain and improve connectivity by public transport to the county town of Stafford, market town of Stone and the Potteries conurbation.

5.1.9 It is also important to note that the existing character of nearby settlements of Eccleshall, Yarnfield and Synnerton will be protected as direct consequence of the Meecebrook Garden Community proposals. The fact that no allocations are proposed within the Local Plan at these three significant communities means that these settlements will remain relatively unchanged during the plan period.

5.1.10 The public transport links from Meecebrook are all routed through these existing nearby settlements and the fact that the services will be upgraded will help to improve the sustainability and connectivity of these settlements.

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- 5.1.11 Further, the community facilities that will be delivered at Meecebrook will also enhance the availability of essential facilities such, as schools, health provision as well as providing additional community and recreation opportunities for these local communities.
- 5.1.12 **Policy 2 Settlement hierarchy:** The inclusion of **Meecebrook** within the settlement hierarchy as a **Tier 3 settlement is supported.**
- 5.1.13 It is rational that Meecebrook sits beneath the county town of Stafford and market town of Stone and above the Tier 4 larger settlements.
- 5.1.14 The Settlement hierarchy in concert with the Spatial Portrait of the borough should define the roles and functions of the tiers within the settlement hierarchy.
- 5.1.15 Such definition will provide a helpful backdrop which informs the policy basis for users of the plan and enabling them to have a clear understanding of the scale and type of development that will be encouraged at any settlement during the plan period.
- 5.1.16 **Policy 4 Climate change development requirements:** The requirement for new development to take a positive approach to climate change mitigation is supported as a policy principle. The energy strategy for Meecebrook Garden Community will incorporate these principles within its approach to design.
- 5.1.17 As the master plan for the site evolves, the strategy to achieve Net Zero Carbon will also be enshrined into relevant design principles. The method of assessment of how the objective of Net Zero Carbon development will be pursued will be an integral evidence base document that the council will be required to publish prior to regulation 19. The Assessment Methodology will be a vital component of the plan as it has to ensure that development is both capable of achieving such targets based on the best technology presently available to developers whilst also ensuring that development remains commercially viable.
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6 MEECEBROOK GARDEN COMMUNITY

Q3. The local plan proposes a new garden community called Meecebrook close to Cold Meece and Yarnfield. This new community is proposed to deliver housing, employment allocations, community facilities, including new schools, sport provision and health care facilities, retail and transport provision, which includes a new railway station on the WMCL, and high quality transport routes. Do you agree with the proposed new garden community?

- 6.1.1 The Meecebrook Garden Community proposal is the culmination of several years collaborative work between the owners of the Baden Hall Estate, Dean Lewis Estates, and their professional advisors Wardell Armstrong, and range of key stake holders, Stafford Borough Council, Staffordshire County Council, Homes England a number of supporting professional consultancy teams.
- 6.1.2 The objective has been to promote a deliverable and sustainable Garden Community proposal that will serve to deliver a significant proportion of the identified growth to meet the borough's housing and employment needs, whilst helping to build and reinforce the prime objective of sustainability within the borough.
- 6.1.3 The Meecebrook Garden Community was selected by government in 2019 to receive funding to enable the initial feasibility work necessary to determine whether proposal was deliverable. The outcome of that work has demonstrated that the Local Plan proposal identified within **Policy 7** can deliver circa 3,000 dwellings and 15ha of employment development together with essential community facilities during the plan period. Beyond the plan it is envisaged that a further 3,000 dwellings will further be enabled to come forward as part of comprehensively master planned development at Meecebrook.
- 6.1.4 Supporting evidence-based documents that have been published alongside the 2nd Regulation 18 Local Plan include the Meecebrook Vision document, together with concept masterplan, as well as several elements including the emerging transport evidence base and a rail feasibility study. Further evidence base work will be produced to support the regulation 19 Local Plan.
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- 6.1.5 **Policy 7 Part B** identifies that at least 3,000 homes will come forward within the plan period, with the potential to deliver c. 6,000 over the longer term. Paragraph 22 of the NPPF states that, *"Strategic policies should look ahead over a minimum 15 year period from adoption, to anticipate and respond to long-term requirements and opportunities, such as those arising from major improvements in infrastructure. Where larger scale developments such as new settlements or significant extensions to existing villages and towns form part of the strategy for the area, policies should be set within a vision that looks further ahead (at least 30 years), to take into account the likely timescale for delivery."*
- 6.1.6 The longer-term delivery timeframe for Meecebrook entirely accords with the approach advocated in national policy.
- 6.1.7 Further, paragraph 27 states; *"In order to demonstrate effective and on-going joint working, strategic policy-making authorities should prepare and maintain one or more statements of common ground, documenting the cross-boundary matters being addressed and progress in cooperating to address these. These should be produced using the approach set out in national planning guidance and be made publicly available throughout the plan-making process to provide transparency."*
- 6.1.8 As noted above, a component of the unmet housing need for Greater Birmingham & The Black Country will be delivered via the Stafford Local Plan. The approach set within national policy of cross boundary cooperation which should be encapsulated within a statement of common ground between the borough and relevant body and should follow Regulation 19 and prior to examination of the plan.
- 6.1.9 In terms of the emerging evidence that will be adduced to support the proposal for Meecebrook Garden Settlement detailed infrastructure delivery planning will be undertaken to support the Regulation 19 plan. Housing and employment market evidence will be assimilated to inform the viability which will also support the development delivery trajectory which will also be provided at regulation 19 stage.
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- 6.1.10 **Policy 7 Part C** relates to the provision of **15ha of employment** as a component of the Garden Community. **This is supported in principle.**
- 6.1.11 The policy criteria part also states that part of the employment provision should be within a 'new town centre'. This reference is qualified in **Part D of Policy 7** and is therefore unnecessary and should be removed.
- 6.1.12 **Policy 7 Part D** provides guidance as to the key items of infrastructure that will be enable the Garden Community to function effectively for the new resident community.
- 6.1.13 However, as currently worded the policy envisages that all the key uses will be located at or within a new town centre. The policy should instead require that the master plan for the site ensures good connectivity between the new settlement and all such uses. As presently worded the policy implies that all such will comprise the town centre as single entity. It is unlikely for instance the new High School will form part of the town centre. The location of the school nearby to the new town centre may be appropriate but, as currently drafted the policy wording is too prescriptive.
- 6.1.14 **Part F of Policy 7** identifies an approximate floorspace capacity for retail provision at the overall settlement of circa 3,350m² and circa 1,650m² convenience at the new town centre. The principle of approximating the capacity at this stage within the policy is supported but the basis of these figures appears to be unsupported by clear evidence. It is noted that the evidence base published alongside this consultation, including the Town Centre Capacity Assessment for Stafford Borough 2019, does not appear to establish a proper basis upon which the approximated figures have been derived.
- 6.1.15 We would strongly urge that as part of the overall master planning of the site that a more refined retail capacity assessment is undertaken as an evidence-based document, the findings of which should be used to inform the final master plan. This will ensure that adequate convenience retail and other provisions are distributed at appropriate locations throughout the garden community, thereby
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avoiding the need for unnecessary vehicle journeys and reducing out commuting.

6.1.16 **Policy 7 Part G** is, as drafted, categoric. However, the Rail feasibility Study that is published alongside the 2nd Regulation 18 Local Plan is positive in so far as it identifies that a case can be made to Network to secure a set down station on the West Coast Main line within the Garden Community at Meecebrook. Fundamentally at this stage, it's delivery cannot be guaranteed as it is subject to separate legal due process. The policy wording should be amended to suitably qualify this fact.

6.1.17 Further, the Vision document notes that delivery of the rail station facility at Meecebrook is a key aspiration of the scheme. Continued engagement will ensue with the rail provider and others to seek to deliver this facility. However, it is also important to note the Transport Study published alongside the 2nd Regulation 18 Local Plan demonstrates that the establishment of the Garden Community at Meecebrook is not contingent upon a rail station set down facility. The site can function sustainably from a holistic transport point view without this facility, if required.

6.1.18 **Parts G, L and M of the Policy 7** require clarification in this regard.

6.1.19 **The wording in Part N of Policy 7** requires amendment. *The statement that " Meecebrook 'must come forward comprehensively' is inappropriate.*

6.1.20 More appropriate policy wording should read:

Development proposals at Meecebrook must come forward in accordance with the principles of a Meecebrook Framework Masterplan Supplementary Planning Document and having regard to the detailed Policy 8 and Appendix 9.

Stafford Borough Council will not support ad hoc or piecemeal development which is contrary to the aims of this policy or is inconsistent with the framework masterplan.

6.1.21 This approach is appropriate as a principle as the development of Meecebrook is estimated to take place over a Twenty year period and more probably longer.

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- 6.1.22 We are committed to working with the Council to ensure the timely delivery of infrastructure commensurate with the scale and type of development planned for at Meecebrook. This infrastructure delivery work will further evolve going forward and this further information will be submitted in support the Regulation 19 consultation.
- 6.1.23 **Policy 8** – ‘Masterplanning and design at Meecebrook’ advocates an overarching master plan approach with individual neighbourhood character areas being defined within the master plan. The approach is supported and will be based on the concept masterplan that has been published alongside the draft plan.
- 6.1.24 This further detailed work that is commissioned will be produced in support of the Regulation 19 consultation.
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7 ECONOMY POLICIES

Q7. The Stafford Borough Local Plan 2020-2040 proposes policies around the town centres uses, agriculture and forestry development, tourism development and canals. Do you agree with these policies?

- 7.1.1 **Policy 19 (Town centre and main town centre uses)** identifies Meecebrook within the settlement hierarchy of centres for the Borough. We support this policy approach but there are some minor points of clarification that should be addressed for consistency within the Local Plan.
- 7.1.2 Under **Part E, of Policy 19** Meecebrook town centre is identified as sitting below Eccleshall local centre in the hierarchy of centres. Whereas, Meecebrook sits beneath the county town of Stafford and market town of Stone but the above the Tier 4 larger settlements which includes Eccleshall. It is rational that the approach as set in the **Development Strategy and Climate change (Policy 1. Development Strategy (Criteria E))** is the correct hierarchical identification.
- 7.1.3 In terms of the future role that Meecebrook Garden Community will play within the overall hierarchy of settlements within Stafford Borough it is evident that the third-tier designation is correct.
-

8 HOUSING POLICIES

Q8. The local plan proposed a policy (Policy 23) on affordable housing. Do you agree with this policy?

Q10. The local plan proposes policies around homes for life, rural exception sites, new rural dwellings, replacement dwellings, extension of dwellings, residential subdivision and conversion, housing mix and density, residential amenity and extension to the curtilage of a dwelling. The relevant policies are 24, 26-29, 31-33. Do you agree with these policies?

- 8.1.1 Meecebrook Garden Community will play an important role in delivery a quantum of affordable housing that is commensurate with the level of viability that is established for the overall scheme of phased development.
 - 8.1.2 The affordable housing threshold will require viability testing to ensure that the correct balance is struck between market and affordable housing provision. This work will be completed prior to and inform the formulation of the Regulation 19 plan.
 - 8.1.3 Regard should be had to the type, amount and timing of delivery of infrastructure to ensure that the development remains deliverable and viable throughout the planned development period / trajectory.
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- 8.1.1 **Policy 31 (Housing mix and density)** Part B identifies Meecebrook as a site that is required to make provision for 'plots equivalent to 1% of all dwellings ... be made available to self or custom builders as serviced plots at reasonable market rates'. Notably the Stafford Borough Viability and Delivery Assessment (2022) states that self-build schemes have not been explicitly appraised. This appraisal is a vital component of the evidence base in respect of self-build or custom-build housing as part of the Meecebrook Garden Community.
- 8.1.2 The type, amount and cost of infrastructure required at Meecebrook is highly likely to be greater in comparison to the reinforcement of infrastructure which pertains to urban extensions, such as those around Stafford or Stone.
- 8.1.3 Due to the higher cost of providing new infrastructure the aforementioned viability assessment of the Meecebrook Garden Community should for example appraise whether the result price per plot would be exponentially higher compared with other self-build sites within the borough.
- 8.1.4 If the outturn of this work demonstrates that this is the case then the **draft Policy 31** should be suitably amended to potentially remove or change the requirement related to Meecebrook.
-

9 ENVIRONMENT POLICIES

Q12. The environment policies chapter contains policies on the historic environment, flood risk, sustainable drainage, landscapes, Cannock Chase Area of Outstanding Natural Beauty (AONB), Green and blue infrastructure network, biodiversity, Special Areas of Conservation (SAC), Trees, Pollution and Air Quality. The relevant policies are: 41, 42, 43, 44, 45, 46, 47, 48, 49, 50 and 51. Do you agree with these policies?

- 9.1.1 The principles outlined in Policies 41, 42, 44, 47 and 49 are supported and further work will be prepared to inform the proposals for the Meecebrook Garden Community proposal in these regards.
-

From: Day, Adam [REDACTED]
Sent: 12 December 2022 10:43
To: Strategic Planning Consultations
Cc: [REDACTED]
Subject: SBC Local Plan Consultation Submission - Lower Farm Drointon
Attachments: SBC Local Plan Rep Submission - Drointon Solar Proposal.pdf

Dear Sir/Madam,

Please find attached a representation submission prepared in response to the preferred options local plan consultation.

Can you please confirm receipt of this submission.

Kind regards

Adam

Adam Day | Principal Planner
Wardell Armstrong LLP

[REDACTED]



Celebrating
185 Years

Contact Details

Full name (required): Adam Day

Email (required): 

Tick the box that is relevant to you (required):

- Statutory Bodies and Stakeholders
- Agents and Developers
- Residents and General Public
- Prefer not to say

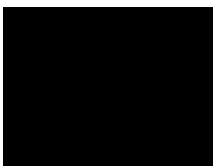
Organisation or Company Name (if applicable): Wardell Armstrong on behalf of Innova Renewables Ltd

Tick the box that is relevant to you:

(This is a non-mandatory question but helps us understand the demographic of our respondents.)

- Under 18
 - 18-24
 - 25-34
 - 35-44
 - 45-54
 - 55-64
 - 65+
- Prefer not to say / not applicable

Do you want to be added to our Local Plan consultation database to be notified about future local plan updates?



Contents

The Local Plan Preferred Options includes the topics listed below.

Each topic has a series of standard questions in order for you to provide a response. You do not have to respond to each of the topics or answer all of the questions. The page numbers below relate to the page the topic starts in this consultation form.

- **Vision and Objectives** - page 5
- **Development Strategy and Climate Change Response** - page 6
- **Meecebrook Garden Community** - page 9
- **Site Allocation Policies** - page 10
- **Economy Policies** - page 14
- **Housing Policies** - page 16
- **Design and Infrastructure Policies** - page 18
- **Environment Policies** - page 19
- **Connections** - page 20
- **Evidence Base** - page 21
- **General Comments** - page 22

All of the local plan documents and the Local Plan 2020-2040: Preferred Options document are available here: <https://www.staffordbc.gov.uk/local-plan>

Vision and Objectives

Q1. There are eight objectives for the local plan to achieve the vision of:

"A prosperous and attractive borough with strong communities."

Of the following objectives which 3 are the most important to you?

Please make your choice from the list of objectives below. (Maximum of 3 to be selected)

Local Plan Preferred Options document reference: Page 12

- Contribute to Stafford Borough being net zero carbon by ensuring that development mitigates and adapts to climate change and is future proof.
- To develop a high value, high skill, innovative and sustainable economy.
- To strengthen our town centres through a quality environment and flexible mix of uses.
- To deliver sustainable economic and housing growth to provide income and jobs.
- To deliver infrastructure led growth supported by accessible services and facilities.
- To provide an attractive place to live and work and support strong communities that promote health and wellbeing.
- To increase and enhance green and blue infrastructure in the borough and to enable greater access to it while improving the natural environment and biodiversity.
- To secure high-quality design.

Development Strategy and Climate Change Response

Q2. The development strategy and climate change response chapter includes the policies below.

Do you agree with each of the policies in this chapter?

Select Yes or No for each of the policies and then use the box below each policy to add additional comments.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: Pages 19 to 40

Policy 1. Development strategy (which includes the total number of houses and amount of employment land to be allocated and the Stafford and Stone settlement strategies)

Yes / No

Policy 1 Comments:

N/A

Policy 2. Settlement Hierarchy (Tier 1: Stafford, Tier 2: Stone, Tier 3: Meecebrook, Tier 4: Larger settlements, Tier 5: Smaller settlements)

Yes / No

Policy 2 Comments:

N/A

Policy 3. Development in the open countryside - general principles

Yes / No

Policy 3 Comments:

We note and support the general premise of policy 3, notably part 6 which identifies support for 'Renewable energy generation, in accordance with Policy 40'.

We would urge that greater focus be given within the policy to the specific typologies of renewable energy generation in the countryside and the levels of differing impact which schemes may have. We would suggest the policy utilise this as a foundation for attributing support for renewable schemes, with those with lower/reversible impacts such as solar being recognised and weighted accordingly.

Policy 4. Climate change development requirements

Yes – with modifications

Policy 4 Comments:

Policy 4 is of critical relevance to the ongoing strategy within Stafford Borough for carbon reduction and renewable energy generation, and we would suggest greater impetus be placed on this within the policy. We have addressed this in detail in the representation attached at the end of this statement, notably paragraphs 2.2 and 2.3.

Policy 5. Green Belt

Yes / No

Policy 5 Comments

N/A

Policy 6. Neighbourhood plans

Yes / No

Policy 6 Comments:

N/A

Meecebrook Garden Community

Q3. The local plan proposes a new garden community called Meecebrook close to Cold Meece and Yarnfield. This new community is proposed to deliver housing, employment allocations, community facilities, including new schools, sport provision and health care facilities, retail and transport provision, which includes a new railway station on the West Coast Main Line, and high quality transport routes.

Do you agree with the proposed new garden community?

Yes / No

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: Pages 41 to 45

Comments:

N/A

Site Allocation Policies

Q4. The Stafford Borough Local Plan 2020 - 2040 proposes allocations for both housing and employment to meet the established identified need.

The site allocation policies chapter includes the policies below for housing and employment allocations.

Do you agree with the proposed allocations?

Select Yes or No for each of the following policies and then use the box below each policy to add additional comments.

Explain your reasoning and add any evidence to justify your response. Please provide details of alternative locations for housing and employment growth if you consider this is appropriate.

Ensure any comments relate to the policy comment box you are completing.

If you do want to submit a new site for consideration through the local plan process, we are still accepting sites through the Call for Site process, details are available here: <https://www.staffordbc.gov.uk/call-sites-including-brownfield-land-consultation>

Local Plan Preferred Options document reference: Pages 47 to 56 and appendix 2.

Policy 9. North of Stafford

Yes / No

Policy 9 Comments:

N/A

Policy 10. West of Stafford

Yes / No

Policy 10 Comments:

N/A

Policy 11. Stafford Station Gateway

Yes / No

Policy 11 Comments:

N/A

Policy 12. Other housing and employment land allocations.

(In your response, please specify which particular site you are referring to, if relevant.)

Yes / No

Policy 12 Comments:

N/A

Q5. The Stafford Borough Local Plan 2020 - 2040 proposes to allocate land for Local Green Space and Countryside Enhancement Areas throughout the borough.

The policies which relate to these proposals are listed below.

Do you agree with the proposed allocations?

Select yes or no for each of the policies and then use the box below each policy to add additional comments.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: Pages 56 to 59 and appendix 2.

Policy 13. Local Green Space

(In your response, please specify which particular site you are referring to, if relevant)

Yes / No

Policy 13 Comments:

N/A

Policy 14. Penk and Sow Countryside Enhancement Area (Stafford Town)

Yes / No

Policy 14 Comments:

N/A

Policy 15. Stone Countryside Enhancement Area

Yes / No

Policy 15 Comments:

N/A

Economy Policies

The Economy Policies chapter contains policies that seek to protect employment land and support economic growth within the Borough.

Q6. The local plan seeks to protect previously allocated and designated industrial land and support home working and small-scale employment uses.

The relevant policies are: 16, 17 and 18.

Do you agree with these policies?

Yes / No

Select Yes or No and then use the box to add additional comments. If referring to a specific policy, please include the policy number.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: pages 61 to 65

Comments:

N/A

Q7. The Stafford Borough Plan proposes policies around the town centres uses, agriculture and forestry development, tourism development and canals.

The relevant policies are: 19, 20, 21 and 22.

Do you agree with these policies?

Yes / No

Select Yes or No and then use the box below to add additional comments. If referring to a specific policy, please include the policy number.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: pages 65 to 71

Comments:

N/A

Housing Policies

The Housing Policies chapter contains policies that seek to provide for identified need across the borough and support houseowners.

Q8. The local plan proposed a policy (Policy 23) on affordable housing.

Do you agree with this policy?

Yes / No

Select yes or no and then use the box below to add additional comments.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: pages 74 to 76

Comments:

N/A

Q9. The local plan proposes a policy (Policy 30) to help meet identified local need for pitches for Gypsies and Travellers. There are 2 new proposed sites; one near Hopton and the other near Weston.

Do you agree with this policy?

Yes / No

Select yes or no and then use the box below to add additional comments. In your response, please specify which particular site you are referring to, if relevant.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: pages 84 to 86

Comments:

N/A

Q10. The local plan proposes policies around homes for life, rural exception sites, new rural dwellings, replacement dwellings, extension of dwellings, residential subdivision and conversion, housing mix and density, residential amenity and extension to the curtilage of a dwelling.

The relevant policies are: 24, 26, 27, 28, 29, 21, 31, 32 and 33.

Do you agree with these policies?

Yes / No

Select yes or no and then use the box below to add additional comments. If referring to a specific policy, please include the policy number.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: pages 73 to 89

Comments:

N/A

Design and Infrastructure Policies

Q11. The design and infrastructure chapter contains policies on urban design general principles, architectural and landscape design, infrastructure to support new development, electronic communications, protecting community facilities and renewable and low carbon energy.

The relevant policies are: 34, 25, 36, 37, 38, 39 and 40.

Do you agree with these policies?

Yes – Policies 37 & 40 with modifications

Comments:

We note policies 37 and 40 and the intrinsic importance they will have to the provision and location of appropriate renewable energy development, notably solar generation. In assessing suitable development locations for solar, greater consideration needs to be given within the eLP to grid connectivity and supporting infrastructure (as per policy 37). This is discussed within the detailed submission at the end of this form at paragraph 2.9.

Policy 40 is the primary policy driving renewable energy development within the Borough over the emerging Plan period. We would however urge greater impetus for solar/ general renewables be identified within the policy to respond to energy and climate requirements in the short term, while providing a more supportive policy basis for applications to be assessed against. This is discussed in detail at paragraphs 2.4, 2.11 and 2.14 in the representation at the end of this form.

Environment Policies

Q12. The environment policies chapter contains policies on the historic environment, flood risk, sustainable drainage, landscapes, Cannock Chase Area of Outstanding Natural Beauty (AONB), Green and blue infrastructure network, biodiversity, Special Areas of Conservation (SAC), Trees, Pollution and Air Quality.

The relevant policies are: 41, 42, 43, 44, 45, 46, 47, 48, 49, 50 and 51.

Do you agree with these policies?

Yes – with comments

Select yes or no and then use the box below to add additional comments. If referring to a specific policy, please include the policy number.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: Pages 101 to 119.

Comments:

We recognise and support the need to direct development to suitable locations so as to minimize environmental impacts, and provide mitigation as required. We would however urge greater recognition and policy support be given to development typologies and land uses which are able to support both development proposals, and other beneficial land uses. Noting solar generation schemes specifically, the inherent nature of these proposals means they can function alongside pastoral farming, offer biodiversity enhancements, or be returned to previous uses if removed.

The benefits of such multifaceted development typologies which are fully temporary in nature, are not currently recognized within the environmental typologies. Additional consideration on this issue is provided at paragraph 2.15 of the full representation.

Connections

Q13. The connections policies chapter contains policies on transport and parking standards.

The relevant policies are: 52 and 53

Do you agree with these policies?

Yes / No

Select yes or no and then use the box below to add additional comments. If referring to a specific policy, please include the policy number.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Local Plan Preferred Options document reference: Pages 121 to 124.

Comments:

N/A

Evidence Base

To support the Local Plan 2020-2040 an evidence base has been produced.

The evidence base is available to view on our website here:

www.staffordbc.gov.uk/new-lp-2020-2040-evidence-base

Q14. Have we considered all relevant studies and reports as part of our local plan?

No

Select yes or no and then use the box below to add additional comments.

Explain your reasoning and add any evidence to justify your response.

Ensure any comments relate to the policy comment box you are completing.

Comments:

With regard to potential renewable energy allocations and overall policy, we consider the evidence being relied upon to underpin the eLP to be deficient and in places significantly out of date. A full explanation of this consideration is provided throughout chapter 2 of the representation provided at the end of this form.

Q15. Do you think there is any further evidence required?

Yes

Select yes or no and then use the box below to add additional comments.

If you think additional evidence is needed, please state what you think should be added and explain your reasoning.

Ensure any comments relate to the policy comment box you are completing.

Comments:

As mentioned, we consider the evidence base underpinning the renewable energy strategy in the eLP to be inadequate and not currently fit to inform an up-to-date Development Plan. Part of this is a lack of consideration of the most up to date guidance documents, inadequate evidencing of site selection and limited assessment of technical considerations. A full explanation of these matters is provided throughout chapter 2 of the representation provided at the end of this form.

General Comments

If you have any further comments to make on the Local Plan Preferred Options document and evidence base, please use the box below.

Please find full representation response to matters noted in this form attached at the end of the document. The comments pertain to the need for additional consideration of solar generation within the emerging Plan, notably through policies 4, 40 and the supporting evidence base. The submission also identifies a site in Drinton as suitable for solar generation with an attached location plan for reference.

The site has also been submitted to the call for sites exercise that is currently ongoing.

If you need further space to add comments, please add pages to the end of the consultation form and reference which question you are answering.

Thank you for taking the time to complete this consultation form.

Completed forms can be submitted by email to:
strategicplanningconsultations@staffordbc.gov.uk

Or returned via post to: Strategic Planning and Placemaking, Stafford Borough Council, Civic Centre, Riverside, Stafford, ST16 3AQ

The consultation closes at 12 noon on Monday 12 December 2022, comments received after this date may not be considered.

Representation Submission

1 INTRODUCTION

- 1.1 This representation to the Local Plan 2020-2040 Preferred Options document is made on behalf of Innova Renewables Limited (Innova) in support of a project for Solar Energy Generation and Energy Storage at Lower Farm, Drointon and land south of Unnamed Lane, ST18 0LX. This submission seeks to constructively contribute to the preparation of the new Local Plan, while promoting the project identified above and demonstrating how it is in compliance with emerging policy objectives and able to provide a significant, deliverable contribution to renewable energy generation.
- 1.2 At the outset we wish to commend Stafford Borough for their proactive approach to the provision and growth of renewable energy generation in the authority through the emerging Local Plan (eLP). This approach responds positively to long standing central government objectives pertaining to net zero carbon generation by 2050, and the more immediate decarbonisation of the energy sector by 2030 as required by the Energy Act 2013. We also note and support the individual objective set by Stafford Borough to reach net zero by 2040 to combat climate change as quickly as possible.
- 1.3 The need to reduce carbon emissions and increase renewable energy generation has grown exponentially in importance since the initial inception of the 'net zero' target. The need for renewable energy generation has evolved from the being required solely to lower carbon emissions, and now plays an integral role in energy security. National policy has shifted from reliance on international sources of energy, with global instability causing supply concerns. As such, energy generated domestically is now central to the UK's energy strategy, as identified in the British Energy Security Strategy (April 2022). This document outlines the strategy for a reduction in fossil fuel dependency, a key element of which is noted as being an anticipated five-fold increase in solar development by 2035. It is noted that this will be supported by a 'strengthened by policy in favour of solar development on non-protected land'. This approach should be mirrored within Local Plan's at the earliest opportunity to achieve the 2035 'five-fold' increase in solar generation.
- 1.4 To achieve both national and local objectives pertaining to 'net zero', the successful delivery of renewable energy generation projects through the eLP is fundamental. In this regard we would consider it imperative that the evidence base utilised to inform the local plan be both up to date and as robust as possible to inform guiding policies. Progressing the eLP without these aspects in place may jeopardise delivery objectives.

2 POLICY CONSIDERATIONS

2.1 The central policies driving the need for renewable energy generation projects within the eLP have been identified as

- Policy 4: Climate change development requirements, and
- Policy 40: Renewable and low carbon energy.

2.2 Policy 4 in its current form provides a broad set of policy objectives for residential and non-residential developments to provide a policy framework to begin to address climate change at a local level. While we support the intention of this policy, we note that the policy focuses very specifically on the requirements for residential developments, quoting specific target figures, while non-residential development is significantly broader and vague. Moreover, the only real policy impetus for renewable energy is noted in paragraph 'D' of the policy, which simply notes that "Residual energy demand for new residential and non-residential buildings should be met through onsite renewable energy schemes, but if this is not technically feasible, the requirement may be met elsewhere by means of offsite renewable energy generation".

2.3 It is not clear what is meant by 'residual energy demand', leaving a significant margin for interpretation by developers and uncertainty as to the quantum of renewable energy required. We would suggest the implementation of a specific minimum target figure within the policy for the utilisation of renewable energy. We would recommend this then feed into additional policy text which focuses specifically on renewable energy provision. At present, there is no real guidance within the Policy for the implementation of the development of renewables and given Policy 4 is a primary policy for the reduction of carbon and combatting climate change, we would suggest this is an oversight. The role renewable energy developments such as Solar PV and Energy Storage are able to play in the overall 'net zero' ambition should be reinforced throughout the local plan within relevant policies such as this.

2.4 We note and welcome Policy 40 in its specific focus on the development of renewable energy developments, specifically solar and wind generation. We would however urge greater clarity be applied to part 'A' of the policy which notes the following:

"The policies map identifies areas in which proposal for one or more wind turbines and proposals for solar photovoltaic generation will be supported in principle provided they are in accordance with the following paragraphs of this policy and other policies of this plan".

- 2.5 This facet of the policy seems to imply that the Solar PV sites identified on the policy map benefit from some form of allocation, however the Renewable Energy Topic Paper in the eLP evidence base is explicit at paragraph 3.1 on page 13 states:

“Please note the maps show the potential locations which were identified as the most suitable for the siting of strategic wind and solar installations, and do not constitute a proposed allocation”.

- 2.6 The sites identified in the eLP policy mapping have been clearly informed by the renewables topic paper. We would question the robustness of the methodology employed in the selection of these sites as the ‘Renewable Energy Topic Paper’ notes that the sites selected as ‘potential’ locations have their origins in a 2010 study undertaken by Camco. Notwithstanding that this study is significantly dated to be used to underpin a development plan up to 2040, it is very broad in its scope, assessing the entirety of Staffordshire and not solely Stafford Borough. The study is also based on the now out of date PPS22 and does not reflect the up-to-date guidance identified in the NPPF. This in itself conflicts with the NPPF, notably paragraph 31 which pertains to the preparation and review of development plans:

“The preparation and review of all policies should be underpinned by relevant and up-to-date evidence”.

- 2.7 It cannot be considered a robust approach to utilise out of date guidance and evidence to underpin an emerging policy document, and we would suggest that the council update their evidence as a priority to ensure a sound and deliverable Local Plan.

- 2.8 Further, the report itself does not appear to make any specific recommendations as to the preferred location for Solar PV development, instead focussing on potential wind and hydroelectric opportunities. It is therefore difficult to ascertain how and why the ‘potential’ sites for solar PV development found in the eLP have been selected based on this assessment. Such assessment is clearly rooted pre 2015 and before the introduction of footnote 54 within the NPPF.

- 2.9 There does not appear to be any site assessment or comparison exercise undertaken to assess the suitability of a broader array of sites and crucially, there is no assessment of the potential ease of connectivity to the wider National Grid or local distribution network to support the potential Solar PV locations. Policy 37 of the eLP (Infrastructure to support new development) clearly notes that development will only be permitted where it can be supported by requisite offsite infrastructure. Similarly, the Renewable Energy Topic Paper notes at 2.10 that *‘an element that must be taken*

into account when considering new renewable energy installations is the ability to connect into the electrical grid'. Currently the sites identified for Solar PV development do not seem to be informed by any robust, up to date assessments pertaining to connections, or detailed environmental considerations and as such, we are concerned that they risk being undeliverable and undermining the overall development of renewable energy projects through the eLP.

- 2.10 The Council's supporting evidence base fails to take into consideration the critical infrastructure required to deliver any renewable energy project. Whilst the available capacity of any one point of connection is fluid to a degree, the ability to connect any project into the local network is essential.
- 2.11 We do however support Paragraph 'b' of policy 40 which is a significantly more prescriptive and beneficial approach to assessing whether proposals for renewable energy development are appropriate. We would suggest that the application of support for renewable energy generation projects where they are demonstrably in overall compliance with other policy objectives in the eLP is a more appropriate mechanism to securing appropriate development in sustainable locations. It is our consideration that this method will yield more deliverable renewable energy generation projects within the Borough, meeting overall 'net zero' objectives locally and nationally. This approach will also place the onus on the developer to demonstrate that the scheme is appropriate and in compliance with the eLP.
- 2.12 The current 'potential' allocations need to be underpinned by a robust site selection exercise including a Call for Sites and Sustainability Assessment to be attributed any weight in the decision-making process. At present, the locations chosen for renewable energy generation, particularly solar, have not been arrived at through either a Call for Sites or appraisal via an SA. This approach risks directing development to inappropriate and undeliverable locations, a potential conflict with paragraph 155(b) of the NPPF which identifies 'local plans should consider **identifying suitable areas** for renewable and low carbon energy sources'. (Emphasis added). We would therefore urge that the allocations be revisited and demonstrably suitable and deliverable sites such as that at Drointon discussed in this submission considered.
- 2.13 The application of a positively worded policy towards the development of renewables is also supported within the NPPF. Overarching support can be found at paragraph 11, but specific support can be found at paragraph 158 which notes the following:
- "When determining planning applications for renewable and low carbon development, local planning authorities should:*

a) not require applicants to demonstrate the overall need for renewable or low carbon energy, and recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions.

b) approve the application if its impacts are (or can be made) acceptable.”

- 2.14 It is therefore evident that the most appropriate methodology for bringing forward appropriate renewable development is for individual applications to demonstrate their suitability and policy compatibility as alluded to in Part ‘b’ of Policy 40.
- 2.15 We would also recommend that eLP policy recognise the specific environmental impacts that different types of renewable energy generation are likely to have. Proposals for Solar PV generation have an inherently minimal environmental impact when compared to other development typologies. This is due to the minimal ground footprint required by the proposals and supporting infrastructure and the inherent ‘temporary’ nature of the proposals meaning that the site can be returned to previous uses following its lifespan. Solar developments are also compatible with other uses including habitat creation and grazing making them a highly flexible and beneficial component of renewable energy generation.
- 2.16 Energy Storage is frequently included as part of Solar PV developments and significantly enhances flexibility by enabling projects to continue to contribute to demand during periods of low or nil solar generation, as well as assisting in balancing the wider electricity grid at peak times.
- 2.17 We would suggest these inherent benefits of Solar PV and energy storage be recognised within eLP policy so appropriate weight and consideration can be given to the solar developments as part of the decision-making process.
- 2.18 To ensure the Plan is robust, we would urge that the evidence base employed is as clear and accurate as possible. The Renewable Energy Topic Paper (October 2022) forms a key part of this evidence base. In terms of existing installations, it is somewhat misleading to refer to the number of Solar PV installations, especially given that Stafford Borough Council has not approved any grid scale solar projects according to the BEIS renewable energy database. Figure 2 of the Paper talks about an Illustrative Path to Net Zero. However, it provides no targets for 2030 and just states 100% of energy demands met with renewables in 2050. It is suggested that targets must be provided to seek to achieve these important and critical targets.
- 2.19 Paragraph 3.2 of the paper demonstrates the lack of engagement with the energy sector and out of date evidence being used to support this critical policy. Solar projects

of 5MW were promoted when government subsidy was available. Solar currently has no subsidy and therefore every project must be capable of being commercially viable in order to deliver the critical renewable energy we need. Sites therefore now are commonly around 49.9MW in order to deliver the significant energy generation required but also to be commercially viable.

- 2.20 We also draw attention to and note support for facets within the ‘Climate Change and Green Recovery Strategy 2020 – 2040’. The Council’s document is clear and ambitious *“Long-term sustainability is central to the vision of both our Corporate Business Plan and our Local Plan. A new Local Plan is currently being prepared, with one of the key drivers being to achieve our ambitions towards carbon neutrality. The plan will promote sustainable construction and house building, protect and enhance the natural environment, mitigate the risk of flooding, promote carbon reduction in travel and encourage renewable energy production. Stafford Borough Council has a key leadership role in tackling climate change....”* this ambition is not reflected in the emerging Local Plan policies which need to go further in terms of supporting the growth of renewable energy.
- 2.21 Innova would welcome the opportunity to engage directly with the Council and assist in providing industry specific feedback on the development of a robust evidence base to support the growth in renewable energy.

3 LAND AT LOWER FARM PROPOSALS

- 3.1 Innova are proposing the development of a 49.9MW Solar Farm and a 30MW Energy Storage System (BESS) at Lower Farm, Grindley Lane, Drointon, ST18 0LS, and a 132kV substation at land south of ST18 0LX. The proposals comprise the development of two areas. The first area is referred to as Lower Farm and will house the Solar Photovoltaic (SPV) Array and Battery Storage over circa 60ha. The second smaller parcel is located circa 480m to the west of the proposed SPV array and will contain the 132kV substation within an area of circa 0.74ha.
- 3.2 Drointon is a rural, principally agricultural settlement within Stafford Borough. The SPV site is located to the east of Lower Farm and is comprised of field parcels which feature gentle undulations with no steep rises or troughs in topography. The northern boundary abuts wider agricultural land with a wooded area to the north-east identified as Black Hough. The eastern boundary is formed by further woodland, which

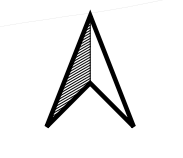
is identified as Newton Gorse, while the southern boundary is formed by further fields with a farmstead and a small number of dwellings beyond. The western boundary is formed by farmsteads to the centre of Drointon. The field parcels are well defined with mature treed vegetation forming a large portion of the boundaries. There is also a small, treed area at the centre of the site with a pond at its centre.

- 3.3 The smaller field parcel housing the proposed substation is located to the west of the main site, to the south of an unnamed lane and south of Drointon. The northern boundary is formed by this lane while the other boundaries are formed by mature, treed hedgerows with agricultural land beyond and farm buildings to the east. A 132KV overhead powerline crosses the site, running north to south.
- 3.4 The nearest environmental designations are Chartley Moss NNR (SSSI and SAC) to the north of Drointon (circa 480m to the north of the SPV site at its nearest point) and Blithfield Reservoir (SSSI) to the south-east (circa 1.7km at its nearest point). The precedent for renewable energy generation projects has already been established in the locality with a smaller solar generation scheme located to the north-west of Drointon and wind generation to the southeast.
- 3.5 A suite of supporting assessments has been undertaken to inform the development of the proposals and it is apparent that the site is not affected by any statutory or non-statutory environmental designations, while there are no aspects relating to ecology, landscape, heritage, flood risk, highways, ground conditions, or environmental considerations which would preclude the development proposals in this location.
- 3.6 Following assessment of the suggested solar locations within the draft eLP, it is clear that there is a deficit of evidence demonstrating the current identified locations are the most appropriate through requisite assessments, or landowner interest. We would urge the demonstrably suitable proposals highlighted above be included within the plan as they are able to make a significant contribution to renewable energy generations in a suitable and deliverable location. A preliminary review of some of the identified potential allocations suggests that they are more constrained than those at Drointon, notably by being in near proximity to environmental constraints such as SSSI's, nature reserves, and SBI's. We also note several sites to the northern and southern ends of the Borough which are located in Green Belt, which whilst not an express preclusion to renewable energy development, is an additional constrain not affecting the site a Drointon.
- 3.7 The site at Drointon is considered to be demonstrably in compliance with emerging Local Plan policy and growth direction, as well as crucially being deliverable and in a

location with a simple connection to the wider electricity grid. A location plan identifying the extents of the site has been provided as an appendix to this submission.

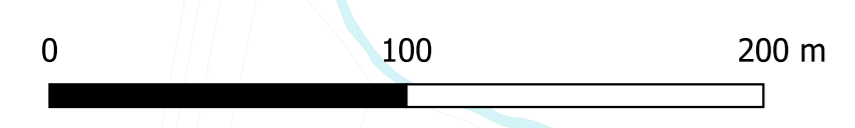
4 REPRESENTATION SUMMARY

- 4.1 Overall, we commend and support the emerging Stafford Borough Local Plan in seeking to proactively address local and national commitments to decarbonisation as part of the wider climate emergency. The comments offered in relation to the plan simply seek clarity and added impetus in the delivery of low carbon energy generation projects to ensure that targets such as decarbonisation of the energy industry by 2030 and overall 'net zero' carbon generation by 2040 can be met within the Borough.
- 4.2 Proposals such as those broached within this submission are key to achieving these aims as they are demonstrably deliverable in the short term, policy compliant, and suitable in their location. We would therefore suggest the site be included within the eLP as an allocation and that local plan policy be developed in such a way which better supports this type of proposal and emphasise the key role that renewables will play in achieving 'net zero'.



GRINDLEY LANE

LEA ROAD



Key
 — Site Boundary and Cable Route

novus

Project:
Site Location Plan

Title:
Site Plan

Date: 09-12-2022	Version: V1
Drawn By: DO	Checked By: LT
Size: A1	Scale: 1:2500