

**RISK ITEM**  
▲ No. 4  
Root protection zone of tree needs to be avoided

**RISK ITEM**  
▲ No. 2  
Proposed footpath located within the root protection zone

**RISK ITEM**  
▲ No. 1  
Hedge to be trimmed onwards for junction visibility

**RISK ITEM**  
▲ No. 1  
Hedge to be removed up till proposed footpath for junction visibility

**RISK ITEM**  
▲ No. 1  
Hedge to be removed up till proposed footpath for pedestrian visibility

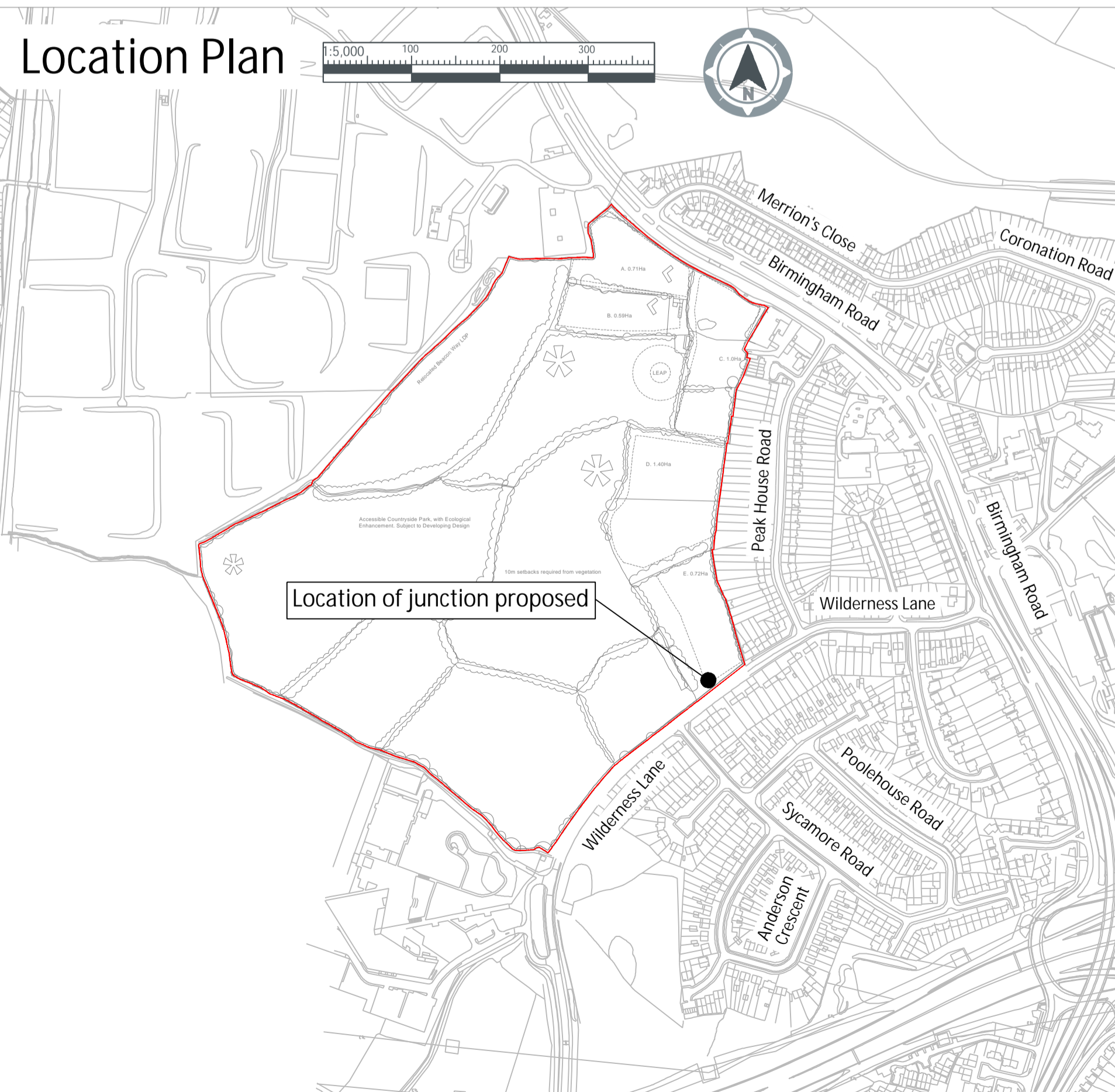
**RISK ITEM**  
▲ No. 1  
Hedge to be trimmed onwards for pedestrian visibility

**RISK ITEM**  
▲ No. 3  
Existing utilities

**RISK ITEM**  
▲ No. 3  
Existing utilities

HEALTH, SAFETY & ENVIRONMENTAL INFORMATION	
In addition to the hazards / risks associated with the types of work detailed on this drawing, please note the following specific identified hazards applicable to this site.	
RESIDUAL HAZARDS	REMARKS
1	Extent of vegetation removal to be confirmed at detailed design stage. Ecological and environmental surveys to be undertaken.
2	Existing tree root protection zone interferes with proposed footpath
3	Existing utilities present overhead and underground in the existing verge/footway. Protection, lowering, diversion of affected services TBC.
4	Root protection zone needs to be avoided of the protected tree

The above identifiable's are noted only to bring attention to hazards / risks which may be outside normal working parameters. Refer to Designers Risk Assessment for a comprehensive list. It is assumed that all works will be carried out by a competent contractor, working where appropriate, to an approved method statement.



### Notes

- Do not scale from this drawing.
- All dimensions in metres unless stated otherwise.
- All works are proposed to be within the highway boundary or Developer owned land.
- This drawing is not to be reproduced in any part or form without consent of PJA Civil Engineering Ltd. All copyright reserved.
- The drawing details have been composed for access viability purposes only. The drawing should not be used for tendering or construction purposes. The information is subject to change during the detailed design.
- The concept design is based from the drawing received from FPCR Environment and Design Ltd, ref: '9364-FPCR-XX-ZZ-DR-L-0012-P06-Illustrative MasterPlan' received September 2023.
- The site boundary is based from CAD drawing received from Wain Estates, ref: '23-07-31 Red Line Plan Rev B' received June 2023.
- The highway boundary has been produced from PDF drawing received from Sandwell Metropolitan Borough Council ref: 'bham rd', drawn May 2020. The boundary produced follows the topo survey up till it's extents and then follows the OS mapping.
- Site specific detailed surveys need to be carried out to confirm design information which may impact the outline design proposals. These include, but are not limited to, ground conditions (geotechnical and geo-environmental), groundwater levels, buried services, remnant obstructions, ecology, tree protection and topography.
- Impacts relating to other civils features; namely: fencing, road restraint systems, drainage, pavement, kerbing, pedestrian crossing facilities (other than those displayed), footway construction, street lighting, have not been detailed and are subject to detailed design.
- The design speeds of the roads are based on ATC speed survey results for 85th percentile speeds recorded w/c 18 July 2023 (Streetwise Services Ltd, Birmingham ATC 01, Wilderness Road, Eastbound 7 day average speed recorded: 33.4mph and Westbound 7 day average speed recorded: 33.6mph).
- The Stopping Sight Distance (SSD) has been calculated based on the recommendations of Chapter 10 of Manual for Streets 2 (published by CIHT and endorsed by the Department for Transport) and ATC speed survey results for 85th percentile speeds. The SSD values take into account the measured or design speed of traffic and the gradient of the highway. They assume driver reaction times and vehicle deceleration values based on the design speed and the type of vehicle. Summary of criteria:  
Street Type: existing  
Eastbound Measured Speed: 33.4 mph  
Westbound Measured Speed: 33.6 mph  
Weather Conditions: wet  
Vehicle Type: HGV  
Eastbound Gradient: 1 %  
Westbound Gradient: -3 %
- Junction visibility drawn to the existing road ATC speed survey results, in accordance with Manual for Streets, listed below:  
- Eastbound: 2.4m x 54m  
- Westbound: 2.4m x 58m
- Pedestrian visibility drawn to the existing ATC speed survey results, in accordance with Design Manual for Roads and Bridges CD 143, listed below:  
- Eastbound: 1.5m x 54m  
- Westbound: 1.5m x 58m
- The proposals outlined are subject to a Road Safety Audit.
- The access junction has been designed in accordance with Manual for Streets, these are listed below:  
- Sight stopping distances  
- Stagger distance between junctions, junction visibility requirements.
- Road markings have been designed in accordance with the Traffic Signs Regulation and General Directions 2016 and Traffic Signs Manual Chapter 5 2018.
- The design is preliminary and subject to discussion with the planning and highway authority.
- This drawing is to be read in conjunction with all other relevant Engineering and Architect's details.
- Visibility should not be restricted by vegetation.
- Works within Highway are subject to Section 278 Agreement, Vehicle Crossover and/or Bellmouth agreements will be required with the Local Authority.
- Extent of earthworks and vertical alignment impacts have not been assessed.
- Access designed for a 150 dwelling development.
- Swept path analysis of the proposed access are shown on PJA plans '07381-CI-A-0010' to '07381-CI-A-0013'.
- Minor Road parameters in compliance with Birmingham CC 'Residential Areas' design guidance, Jan 2004  
- Road classification - Access Road Collector  
- Design speed - 40 kph (25mph)  
- Carriageway width - 5.5m (5.3(c))  
- Footway width - 2m (5.3(f))  
- Maximum 150 dwellings  
- Expected vehicle flows 200-300 vehicles per hour at peak

### KEY

- Site Boundary
- Proposed Cycle Route/Footpath Link Through Development
- Highway Boundary
- Proposed Kerblines
- Junction Visibility
- Pedestrian Visibility
- Road Marking (White)
- Tactile Paving (Buff, Uncontrolled)

### HEALTH, SAFETY & ENVIRONMENTAL INFORMATION

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### Location Plan

Location of junction proposed

### Notes

- Notes updated
- First Issue
- Revision Note

Rev	Date	Revision Note	Drw	CHK	App
P02	12/10/2023	Notes updated		JAL	AN
P01	25/08/23	First Issue		RI	ARP

Client: [Redacted]

Project: Land West of Birmingham Road, Great Barr

Title: Geometry Plan

Drawing Issue Status: For Planning

PJA Ref: 07381/A Scale @ A1: 1:250 Date: 25/08/2023

Drawing No.: 07381-CI-A-0002 Revision: P02

Primary Contact: [Redacted]

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