

Title	Erection of Dwellings at Hazel Grove and Derwent Crescent, Wrexham – Net Benefit for Biodiversity Statement
Date issued	12th December 2023
Author	Max Ellson
Reviewed by	Tom Knight
Client	Wrexham County Borough Council
Report Version	C454/ NBB/ V1.0

1 Introduction

Background

- 1.1 Wrexham County Borough Council (WCBC) has provided planning consents for the erection of a small number of residential dwellings at Derwent Crescent (P/2022/0902) and Hazel Grove (P/2022/0903), Acton, Wrexham.
- 1.2 Planning Condition 4 of P/2022/0902 and Condition 5 of P/2022/0903 both require the submission of a 'Net Benefit for Biodiversity (NBB) Statement'. The wording of both conditions is largely the same and is as follows:
- 'No part of the development shall commence until a plan to provide net benefit for biodiversity (NBB) i.e. a better outcome than if the site was left undeveloped has been submitted to, and approved in writing by, the Local Planning Authority.'*
- P/2022/0902: *'The measures shall be implemented in full, prior to first occupation / use of the development, and thereafter maintained for the lifetime of the development.'*
- P/2022/0903: *'The measures shall be implemented in full, prior to first occupation of the dwelling and shall thereafter be retained.'*
- 1.3 Planning applications for both consents were supported by a Preliminary Ecological Appraisal as follows:
- Marches Ecology (2021). *Proposed Development, Derwen Crescent, Wrexham – Preliminary Ecological Appraisal*. Prepared on behalf of Wrexham County Borough Council.
- 1.4 It has not been possible to consult with WCBC's Ecology and Biodiversity Officer, however review of Marches Ecology (2021, *op. cit.*) has determined that the NBB Statement should include the following:
- 1) Information on proposed soft-landscaping at both sites which is to include native trees/shrubs. For example, see *paragraph 4.2.6* of Marches Ecology (2021, *op. cit.*).
 - 2) Details of Sparrow (*Passer domesticus*) nest-boxes to be incorporated into the dwellings (type and installation requirements). For example, see *paragraphs 4.2.22/3* of Marches Ecology (2021, *op. cit.*).
 - 3) Information on Hedgehog (*Erinaceus europaeus*) access provision. For example, see *paragraph 4.2.27* of Marches Ecology (2021, *op. cit.*).
- 1.5 This document has been produced by Marches Ecology to provide the above information. It will be submitted to WCBC in accordance with Condition 4 of P/2022/0902 and Condition 5 of P/2022/0903.

Site Descriptions

1.6 Marches Ecology (2021, *op. cit.*) provides the results of an Extended Phase 1 Habitat Survey completed in July 2021, with full descriptions of the ecological resources afforded by both sites (in this report Hazel Grove was referred to as 'Site A', and Derwent Crescent as 'Site B'). It should be referred to in full. In summary:

- Derwent Crescent/ Site B '*...extends to approximately 0.15 acres. It comprises an area of hard-standing with some garages*'.
- Hazel Grove/ Site A '*...extends to approximately 0.08 acres. It largely comprises an area of hard-standing with some amenity grassland and ornamental trees. The southern and western boundaries are formed by walls and or fences*'.

The Proposals

1.7 Three dormer bungalows (two joined) are to be constructed at Derwent Crescent, with a single 5-bedroom, residential property at Hazel Grove. Small garden areas will be provided. Six parking spaces will be provided at Derwent Crescent, and two at Hazel Grove.

1.8 The proposals are illustrated on a small number of Lawray Architects plans, including:

- Derwent Crescent:
 - o Drawing No. AHW-LAW-X-X-DR-A-069001; Revision P06, dated 12/12/2023, entitled '*Acton Housing WCBC – Derwent Crescent 1 – Proposed Site Plan & Section*'.
 - o Drawing No. AHW-LAW-X-X-DR-A-069100; Revision P04, dated 20/10/2021, entitled '*Acton Housing WCBC – Derwent Crescent 1 – Block Plan*'.
 - o Drawing No. AHW-LAW-X-X-DR-A-069201; Revision P01, dated 18/11/2021, entitled '*Acton Housing WCBC – Derwent Crescent 1 – Street Scenes*'.
 - o Drawing No. AHW-LAW-X-X-DR-A-062001; Revision P06, dated 22/11/2023, entitled '*Acton Housing WCBC – Derwent Crescent 1 – Proposed Elevations*'.
- Hazel Grove:
 - o Drawing No. AHW-LAW-X-X-DR-A-069002; Revision P02, dated 24/08/2021, entitled '*Acton Housing WCBC – Derwent Crescent 2 – Proposed Site Plan*'.
 - o Drawing No. AHW-LAW-X-X-DR-A-062002; Revision P08, dated 21/11/2023, entitled '*Acton Housing WCBC – Derwent Crescent 2 – Proposed Elevations & Section*'.

1.9 (Soft-)landscaping proposals are illustrated on two PJC Consultancy plans:

- Derwent Crescent:
 - o Drawing No. PJC-1109-001, Revision A, dated 22/02/2022, entitled '*Acton Housing – Derwent Crescent #1 – Proposed Landscape Plan*'.
- Hazel Grove:
 - o Drawing No. PJC-1110-001, Revision A, dated 22/02/2022, entitled '*Acton Housing – Derwent Crescent #2 – Proposed Landscape Plan*'.

2 Biodiversity Enhancement

Introduction

- 2.1 Technical Advice Note 5 (Nature Conservation and Planning) (Welsh Assembly Government, 2009)¹ and Wrexham County Borough Council (2011)² seek developments to achieve net biodiversity gain. The requirement to secure and maintain net benefit for biodiversity (NBB) (through enhancements) was reinforced in a letter issued by the Chief Planner (Welsh Government) to all planning departments in October 2019. NBB has been defined as *‘the concept that development should leave biodiversity and ecosystems in a better state than before, through securing long term, measurable and demonstrable benefit, primarily on site’*³.
- 2.2 Subsequently, Chapter 6 of Planning Policy Wales has been updated as of 11/10/23 which provides *‘further clarity on securing net benefit for biodiversity through the application of the step-wise approach, including the acknowledgement of off-site compensation measures as a last resort, and, the need to consider enhancement and long-term management at each step’*⁴.
- 2.3 WCBC (2011, *op. cit.*) lists *‘examples of how enhancements could be achieved on development sites’*. The options provided include for planting native trees and shrubs and the provision of bird-boxes. CIEEM (2022) states that *‘a key requirement is that the measures put forward are suitable in the local context of the site’*⁵.
- 2.4 Marches Ecology (2021, *op. cit.*) includes the following:
- Paragraph 4.2.6: ‘Soft landscaping around the proposed buildings presents an opportunity to introduce planting of benefit to both wildlife and people. A small number of native trees/ shrubs of value for wildlife could be planted.’*
- Paragraph 4.2.22: ‘The proposal presents an opportunity to enhance the site for a priority species known to be present in the area; the House Sparrow. Nest-boxes specifically designed for this species ... should be built into the new buildings....’*
- Paragraph 4.2.27: ‘New garden fences can prevent Hedgehogs from accessing gardens and traversing across built-up areas. To facilitate access to the gardens for Hedgehogs....[installed garden fences will incorporate appropriate gaps and or holes signage at the base]’.*
- 2.5 Both the House Sparrow and Hedgehog are priority species listed on *Section 7* of the *Environment (Wales) Act 2016*⁶ (as defined in CIEEM (2017)⁷).

¹ Welsh Government (2009). *Planning Policy Wales - Technical Advice Note 5: Nature Conservation and Planning*. September 2009.

² Wrexham County Borough Council (2011). *Local Planning Guidance Note 32 Biodiversity and Development*. Adopted March 2011.

³ <https://www.gov.wales/targeted-policy-changes-planning-policy-wales-net-benefit-biodiversity-and-ecosystems-resilience>

⁴ Summary taken from a letter from Julie James AS/MS (Minister for Climate Change) to all planning departments dated 11 October 2023.

⁵ CIEEM (2022). *Welsh Government’s Approach to Net Benefits for Biodiversity and the DECCA Framework in the Terrestrial Planning System*. CIEEM Briefing Paper September 2022. CIEEM, Romsey.

⁶ HMSO (2016). *The Environment Act (Wales) 2016*. HMSO, London.

⁷ CIEEM (2017). *Guidelines for Preliminary Ecological Appraisal, 2nd Edition*. CIEEM, Winchester.

Assessment of the Required Level of Provision

- 2.6 Marches Ecology (2021, *op. cit.*) concludes that the habitat resources afforded by both sites are of no more than site value, and that '*The loss of this habitat would not result in any significant impacts*'. With regards nesting birds it states that House Sparrow '*might find limited nesting opportunities within the garages on Site B [Derwent Crescent], though no such evidence was recorded*' but that both sites provide '*very limited nesting opportunities ...*'. Neither site is deemed to be of particular value for Hedgehog, '*though the small area of amenity grassland in Site A [Hazel Grove] may be used for foraging*'; limited evidence (droppings) was located at Derwent Crescent.
- 2.7 NBB provision '*should be proportional to the extent and impact of development*' (CIEEM 2022, *op. cit.*). In this instance therefore, it is deemed proportionate for enhancements to provide limited soft-landscaping provision as well as targeting two priority species known to be present at the sites.

Biodiversity Enhancement Recommendations

Soft-landscaping

- 2.8 Paragraph 4.2.6 of Marches Ecology (2021, *op. cit.*) includes for '*a small number of native trees/ shrubs of value for wildlife*' to be planted. It states these could include: *Betula pendula* (Silver Birch), *Sorbus aucuparia* (Rowan), *Prunus avium* (Wild Cherry), *Corylus avellana* (Hazel), *Crataegus monogyna* (Hawthorn), *Ilex aquifolium* (Holly) and/ or *Acer campestre* (Field-maple).
- 2.9 Drawing No's. PJC-1109-001(RevA) & PJC-1110-001(RevA) provide the soft-landscaping proposals:
- Drawing No. PJC-1109-001; Derwent Crescent. This includes for two small areas of planting which comprise 1 no. Wild Cherry, along with associated *Rosa 'Kent'*, and various ground cover shrubs/ herbaceous perennial flowers/ grasses and sedges such as *Skimmia x confusa*, *Cornus sanguinea*, *Pittosporum tenuifolium*, *Aquilegia vulgaris*, *Geranium* sp., *Anemanthale lessoniana*, and *Carex divulsa*.
 - Drawing No. PJC-1110-001; Hazel Grove. This includes for two short lengths of Hawthorn hedge, along with associated *Rosa 'Kent'* and sedge planting.
- 2.10 Some of the plants proposed are included on the RHS 'Plants for Pollinators' lists⁸, or otherwise provide potential value to a range of wildlife, for example as a food source, shelter or potential nesting sites. Given the limited scale of the developments at both sites, the land available for soft-landscaping, and locations, this provision is deemed sufficient.
- 2.11 Drawing No's. PJC-1109-001(RevA) & PJC-1110-001(RevA) provide outline planting specifications. All shrubs/ trees used should be of ideally locally native provenance (Local Seed Zone 304⁹) but as a minimum certified British native origin.

⁸ <https://www.rhs.org.uk/science/conservation-biodiversity/wildlife/plants-for-pollinators>

⁹ Hubert, J. & Cundall, E. (2006). *Choosing Provenance in Broadleaved Trees*. Forestry Commission, Edinburgh.

Bird-boxes – House Sparrow

- 2.12 As prescribed in *paragraph 4.2.22* of Marches Ecology (2021, *op. cit.*), six nest-boxes will be installed at Derwent Crescent (Site B) and three at Hazel Grove (Site A). These will each comprise Schwegler Brick Box No.24^{10,11}, which will be built into the walls of the new buildings.
- 2.13 Schwegler Brick Box No.24 is manufactured from wood-concrete (a durable, rot-proof and breathable natural material designed to mimic the properties of natural nest sites). The dimensions allow for a 1 cm layer of mortar enabling the nest-boxes to be inserted in any wall without the need to cut adjoining bricks. The box can be installed flush with the outside wall and can be rendered or covered so that only the entrance hole is visible.
- 2.14 The preferred aspect for Sparrow boxes is east (e.g., Gunnell, Murphy & Williams (2013)¹²), however north facing elevations are also considered acceptable. The six boxes will be installed as follows:
- Drawing No. AHW-LAW-X-X-DR-A-062001 (Revision P06); Derwent Crescent. One box will be installed on each of the front/ north elevations of Unit 1, 2 and 3, and three boxes will be installed on the eastern elevation of Unit 1.
 - Drawing No. AHW-LAW-X-X-DR-A-062002 (Revision P08); Hazel Grove. One box will be installed on the east elevation, and two on the north elevation,
- 2.15 Where possible, the proposed locations of these boxes follows the advice provided in Sections 8.1 to 8.3 (and Figure B.10) of British Standard (BS) 42021:2022¹³, being near soft-landscaping provision/ other (retained) habitats, and at the highest possible points. All of the boxes as shown will be installed at just below eaves/ soffit or wall top level (more than 2 m above ground level) out of direct sunlight, and at least 1 m apart. They will have unobstructed access and are not located directly above any windows or doors.
- 2.16 Full instructions for their installation are provided in Gunnell, Murphy & Williams (2013) with additional information provided in BS 42021:2022. The specific installation/ design will adhere to the principles as shown in BS 42021:2022 at 'B.1/ Figure B.2: *Traditional cavity wall construction/ Integral nest box installed in the outer leaf showing cavity wall insulation between the box and inner leaf, preventing a thermal/cold bridge and heat loss from the internal living space*' (page 16).

Hedgehog Access Provision

- 2.17 As prescribed in *paragraph 4.2.27* of Marches Ecology (2021, *op. cit.*), to facilitate access to the gardens for Hedgehogs, installed boundary fences should either incorporate a gap of 13 cm (in height) beneath them, or otherwise a hole measuring 13 cm by 13 cm¹⁴ should be cut into the base of the fence on each side of the gardens.
- 2.18 On detailed review of the proposals/ including provision of advice from WCBC on proposed levels before and after the dwellings have been constructed, it was determined that the

¹⁰ For example, <https://www.nhbs.com/schwegler-brick-nest-boxes>

¹¹ The specification for this box is as follows: dimensions: 23.5 cm x 18 cm x 18 cm (H x W x D); entrance diameter: 32 mm; weight: 7.3 kg; features an upright box with removeable entrance hole at the top.

¹² Gunnell, K., Murphy, B. & Williams, C. (2013). *Designing for Biodiversity: A Technical Guide for New and Existing Buildings*. Second Edition. RIBA Publishing, London.

¹³ The British Standards Institution (2023). *BS 42021:2022 – Integral nest boxes – Selection and installation for new developments – Specifications. Incorporating Corrigendum No. 1.*

¹⁴ <https://www.hedgehogstreet.org/help-hedgehogs/link-your-garden/>

Hazel Grove plot would sit at a lower level than the surrounding land/ properties, in particular with ground levels higher along the side and rear boundaries. As such it was determined that provision of gaps underneath, or holes in fencing, for potential Hedgehog access at this site was not appropriate. As it is only one unit, this is not deemed a significant issue.

2.19 As such, Hedgehog access provision will be provided at Derwent Crescent only, as follows:

- Lawray Architects, drawing No.AHW-LAW-X-X-DR-A-069001; Revision P06, dated 12/12/2023, entitled '*Acton Housing WCBC – Derwent Crescent 1 –Proposed Site Plan & Section*'. Provision of one 13 cm by 13 cm hole provided at the base of five fence lines (two internal and three external), allowing potential access in an east-west direction.

2.20 It is proposed that pre-cut gravel boards are utilised^{15,16}; if this option is chosen it should be ensured that they incorporate holes of the required dimensions.

2.21 To ensure that home-owners understand the reason for the holes in their fence, each hole will be labelled on both sides with an appropriate sign, e.g. available from the British Hedgehog preservation Society¹⁷.

Maintenance and Monitoring

2.22 The importance of securing long-term management/ maintenance and monitoring is central to the NBB approach (e.g., CIEEM 2022 (*op. cit.*)). This should also be proportional to the scale and impact of the development.

Soft-landscaping

2.23 Best practice measures to maintain the soft-landscaping provision in the long-term will be implemented, including replacement of any dead plants in the first 3 years after planting. This will also allow any plants that die to be replaced. Once established, long-term management of the Hawthorn hedge lengths at Hazel Grove should be sympathetic to wildlife, with cutting not undertaken during the bird nesting season (March to August) and ideally in late winter (after berries have been eaten). If considered appropriate in this setting it would be of benefit to wildlife to not cut the hedge lengths each year, or for example undertake rotational cutting, whereby different sections are cut every year on a 3-year cycle.

Bird-boxes – House Sparrow

2.24 *Paragraph 4.2.23 of Marches Ecology (2021, op. cit.) states 'Ideally each nest-box should be inspected annually and cleaned if necessary, outside the nesting season.'* As such, each bird should be inspected annually and cleaned if necessary. The entrance hole of the Schwegler Brick Box No.24 can be temporarily removed for this purpose. All such maintenance should be carried out when the last bird has left the nest-box; at least October. As such all nest-boxes should be cleaned in late-autumn (late October/ November). At least 2 to 3 weeks should be allowed after fledging before undertaking any cleaning. The *Wildlife and Countryside Act 1981*, as amended states that cleaning should only be carried out between 1st August and 31st January and that any eggs present should be destroyed immediately. All nest material should be completely removed and disposed of safely along with any other debris. To ensure that parasite build-up is controlled the inside of the nest-

¹⁵ For example, <https://www.denbightimberproducts.co.uk/product/hedgehog-friendly-concrete-gravel-board/>

¹⁶ For example, <https://www.ibstock.co.uk/product/hedgehog-concrete-gravel-board?page=1&>

¹⁷ <https://www.britishhedgehogs.org.uk/shop/product/hedgehog-highway-sign/>

box should be cleansed with boiling water. Care should be taken when opening nest-boxes as it is possible that they could be inhabited by bees, wasps or even bats.

- 2.25 The use of any of the nest-boxes by House Sparrows (or any other species) should be recorded during the nesting season (March to August inclusive). House Sparrows typically raise two to three broods a year, usually between April and August. Records of nesting birds should be submitted to Cofnod¹⁸ (the Local Environmental Records Centre for North Wales).
- 2.26 *Paragraph 4.2.23 of Marches Ecology (2021, op. cit.) states that 'Information on these nest-boxes and their value to House Sparrows should be provided to each of the new homeowners where they have been installed'. Appendix 1 provides a 'household information leaflet'.*

Hedgehog Access Provision

- 2.27 No particular maintenance or monitoring is required of the holes, other than ensuring that they remain in situ, fit for purpose and not blocked.

¹⁸ <https://www.cofnod.org.uk/Home>

APPENDIX 1 – Household Information Sheet

This house has an integral/ built in HOUSE SPARROW (*Passer domesticus*) nest box/ boxes: Schwegler Brick Box No.24

Male House Sparrow



A small (removal) entrance hole will be the only visible evidence of each box – they are located on north or east facing walls.

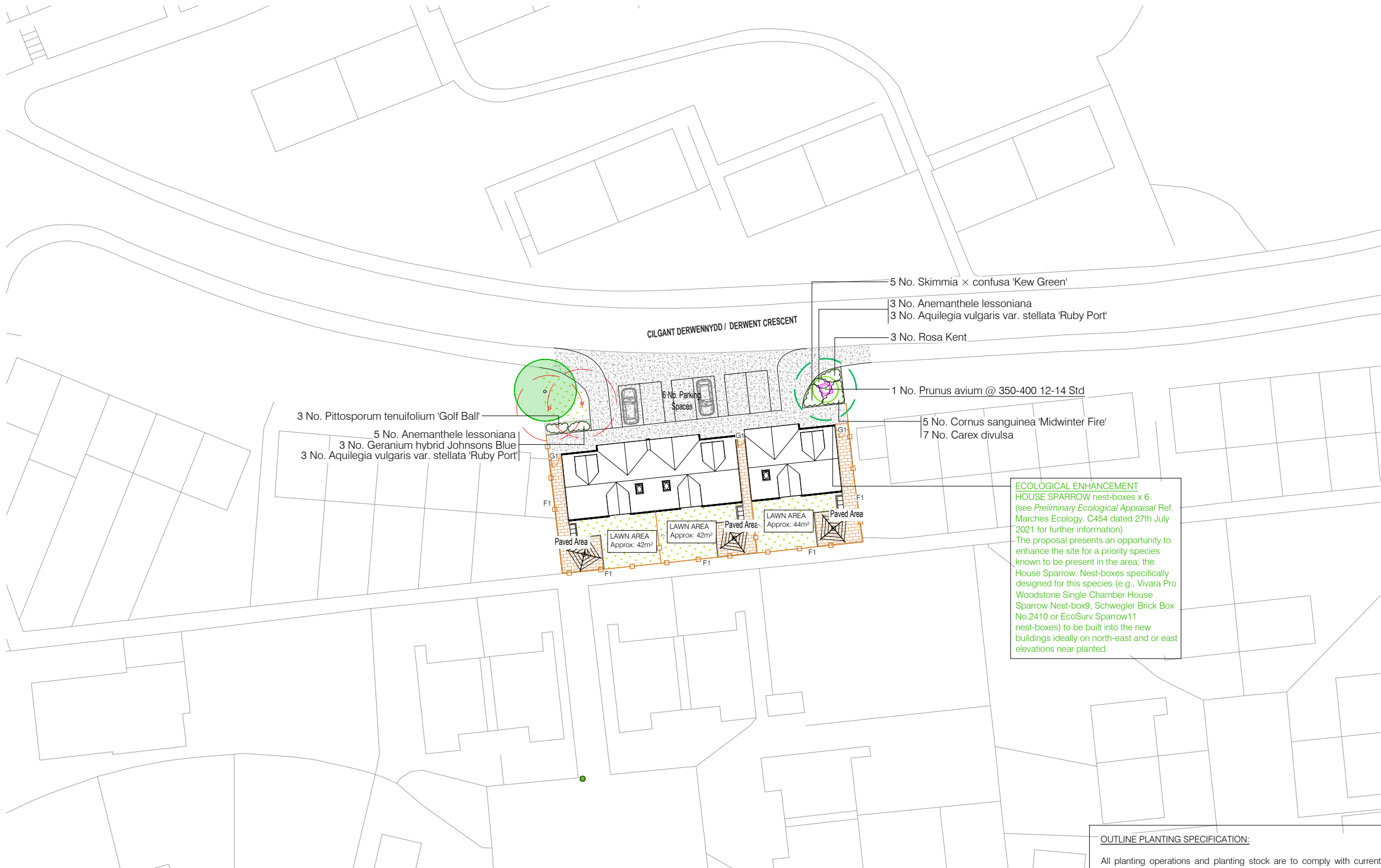
House Sparrows were once widespread, but have been in drastic decline across the UK since the 1970's. This is thought to be due to factors such as lack of food and nest sites, especially in urban areas. This bird is making a recovery in Wales with numbers having almost doubled since the mid-1990's. However, it remains being listed as a bird of conservation concern in Wales, and is also a priority species listed on *Section 7* of the *Environment (Wales) Act 2016*.

House Sparrows typically raise two to three broods a year, usually between April and August. Records of nesting birds can be submitted to the North Wales Environmental Information Service – Cofnod – www.cofnod.org.uk.

The boxes will require annual cleaning out in late-autumn (late October/ November), at least 2 to 3 weeks after young birds have left. Care should be taken as it is possible that they could be inhabited by bees, wasps or even bats. Further information on cleaning out requirements can be found online.



Landscape Proposal Plans



ECOLOGICAL ENHANCEMENT
HOUSE SPARROW nest-boxes x 6.
(see Preliminary Ecological Appraisal Ref. Marches Ecology, C454 dated 27th July 2021 for further information)
The proposal presents an opportunity to enhance the site for a priority species known to be present in the area; the House Sparrow. Nest-boxes specifically designed for this species (e.g., Vivara Pro Woodstone Single Chamber House Sparrow Nest-box2, Schwegler Brick Box No.2410 or EcoSurv Sparrow11 nest-boxes) to be built into the new buildings ideally on north-east and or east elevations near planted.

OUTLINE PLANTING SPECIFICATION:

All planting operations and planting stock are to comply with current recommendations and requirements as set within current British Standard Specifications as below.

- BS 8545: Trees: From Nursery to Independence in the landscape.
- BS 9936-1:1992: Nursery Stock: Specification for trees and shrubs
- BS 3882:2015 - Specification for topsoil
- BS 4428:1989: Code of practice for general landscape operations (excluding hard surfaces (AMD 6784)
- BS 5837: 2012 Trees in relation to design, demolition and construction.

SERVICES: No trees to be planted within 6m of existing or proposed foul, surface water drain or soakaways. Planting adjacent to other services shall be in accordance with the guidelines laid down by the relevant services authority, to be checked prior to works by managing contractor.

SUBSOIL: Rip areas of planting where practical to a depth of 500mm using toothed bucket of excavator / JCB to break up compaction and allow free drainage. Note. No mechanical excavation within retained tree RPAs.

TOPSOIL: Existing topsoil to be stripped and removed.
All imported topsoil to comply with BS: 3882:2015. Ph 6-8, free of stone greater than 50mm in any dimension, perennial weed roots, builders rubble/waste, toxic materials and contamination.
Sample load to be provided and retained for comparison with subsequent deliveries.
Subsequent loads not consistent or complying to be removed from site and replaced at contractors cost.
Topsoil supply and spread by loose tipping to a minimum depth of 300mm.
Lightly firm layers in 150mm deep applications avoiding compaction. Grade to an even surface and marry in with adjacent soft landscape areas.
Finished levels adjacent to hard surfaces to be level with kerb unless otherwise instructed. Allow suitable setting time prior to final levels.
Cultivate to a fine tilth removing all stones over 50mm that come to the surface. Allow to settle and make good deficiencies, humps and hollows.
Remove any weed growth prior to any planting. Treating with herbicide a min of 10 days prior to planting.

TREE PLANTING: Trees planted within 5m of hard surface areas should be installed with root barrier (ReRoot 600 as a minimum)
Tree planting to be installed in pits 800 x 800 x 800 at locations as shown.
Trees to be installed and supported by double round stakes and half round cross bar with bio-degradable tree buckle / tie.
Trees to be planted centrally in pit with Mint Rainbow Treebio Biodegradable Vole Spiral Guard installed
All installed to suppliers recommendations.

BARK MULCH: Applied to 75mm depth at each planted stock item covering 0.5m² area.
Main constituent conifer bark, maximum of 15% wood content and 5% fines. Particle size 5-65mm, free of pest disease or weed contamination.

TREE PLANT AND MIX LOCATIONS: Final positioning of all proposed tree planting and mix areas is subject to confirmation of service locations prior to planting mobilisation.

PLANTING SEASON: The planting of bareroot (BR) tree and shrub stock should only take place between mid-November and the end of March, subject to seasonal change. Tree planting of container grown stock (CG) can be planting throughout the year but recommended between Oct and April. The ground must not be frozen, waterlogged or dry. Seed mixes to be sown between August-September or March-April while the soil is warm and moist.

KEY
soft landscape

- EXISTING RETAINED TREES**
Retained trees and canopy boundary of existing trees, shrubs & hedges as positioned following Arboricultural report in support of Derwent Crescent, Action, Wrexham. ref. Sylvan Resources. Dated: 08/07/2021
- REMOVED TREES & HEDGES**
Canopy of existing trees & hedges to be removed as positioned following Arboricultural report in support of Derwent Crescent, Action, Wrexham. ref. Sylvan Resources. Dated: 08/07/2021
- PROPOSED TREE PLANTING**
Standard tree planting proposed. Minimum 900mm depth of specific purpose free draining topsoil to BS 3882:2015 for tree planting [see Proposed Planting Schedule]
- ROOT CONTROL - LANDSCAPE ROOT DEFLECTOR**
Product: Root Director (RD1050A) - *Green Blue Urban*
[see Tree Pit Sundries / Specification]
- PLANTING BEDS**
Minimum 450mm depth of specific purpose free draining topsoil to BS 3882:2015 for shrub planting etc.
[see Planting Schedule]
- GRASSWORKS - PROPOSED LANDSCAPE TURF**
Areas of proposed amenity grass turf installed upon a minimum of 150mm depth of specific purpose free draining topsoil to BS 3882:2015. Soil leveled and prepared to a fine tilth prior to turf laying. (See Grassworks Schedule for further details)
- PROPOSED TREE PLANTING PROJECTED CANOPY AT 25 YEARS FROM PLANTING**
Proposed canopy radius and canopy m² shown by dashed line.

hard landscape

- HARD LANDSCAPE - PROPOSED TARMAC**
Proposed tarmac access drive.
Finish: Blacktop
To Structural Engineer specification
- HARD LANDSCAPE - PROPOSED PAVING STONE AREAS**
To Structural Engineer specification
- ROTARY WASHING LINE SYSTEM**
- REFUSE STORE POINT**

boundary treatment

F1 - 1.8m treated timber Closeboard fence system with timber post & gravel board

G1 - 1.8m treated timber Closeboard matching pedestrian gate

All works to conform to BS 5837:2012 Trees in relation to design, demolition and construction. Plus conforming to arboricultural method statements.
BS 4428:1989 Code of practice for general landscape operations (excluding hard surfaces)
BS 8545:2014 Trees: from nursery to independence in the landscape. Recommendations ASTM D5268 - 13
Standard Specification for Topsoil Used for Landscaping Purposes

NOTE:
This drawing indicates design arrangement only. All works to be undertaken in accordance with best practice and all current BS & Building Regulations.
Do not scale from drawing. Use figured dimensions only after checking.

A.	Drawing scale change to 1:500	03.05.2022
Rev	Description	Date

PJC Consultancy
Rocks Yard
Victoria Road
Herstmonceux
Hailsham
East Sussex, BN27 4TQ
t: 01323 832120
w: www.pjcconsultancy.com

Client
WREXHAM COUNTY BOROUGH COUNCIL

Project Name
ACTION HOUSING
DERWENT CRESCENT #1
WREXHAM

Drawing Title PROPOSED LANDSCAPE PLAN		
Drawing No. PJC-1109-001	Scale A2 - 1:500	Revision A
Signed		
Drawn TR	22.02.2022	
Designed TR	22.02.2022	

PLANT SCHEDULE					
TREES					
QUANTITY	SPECIES	HEIGHT cm	GIRTH	TYPE	
1 No.	Prunus avium	350-400	12-14	Std / CG	
SHRUBS & HERBACEOUS PERENNIALS.					
All planting areas to be dressed in Medium Grade ornamental bark mulch following planting.					
QUANTITY	SPECIES	HEIGHT cm	SIZE	TYPE	SPACING
6 No.	Aquilegia vulgaris var. stellata Ruby Port	20-30	2lt	CG	600
5 No.	Cornus sanguinea 'Midwinter Fire'	60-80	10lt	CG	800
3 No.	Geranium hybrid Johnsons Blue	20-30	2lt	CG	400
3 No.	Pittosporum tenuifolium 'Golf Ball'	30-40	5lt	CG	800
3 No.	Rosa Kent	30-40	2lt	CG	600
5 No.	Skimmia x confusa 'Kew Green'	30-40	5lt	CG	800
GRASSES					
QUANTITY	SPECIES	HEIGHT cm	SIZE	TYPE	SPACING
8 No.	Anemthele lessoniana	30-40	3lt	CG	600
7 No.	Carex divulsa	20-30	2lt	CG	600
GRASSWORKS SCHEDULE					
GENERAL LANDSCAPE TURF					
Total Turf Areas Combined: Approx. 128 m²					
Pro Turf 3 (With Rye economy) - DLF TRIFOLIUM - or similar approved					
30%	Stravinsky	- perennial ryegrass			
45%	Rossinante	- strong creeping red fescue			
25%	Wagner	- chewing fescue			

TREE PIT SUNDRIES / SPECIFICATION.	
Tree pit ancillaries available from Green Blue Urban: http://www.greenblue.com/gbu/ (or similar)	
1 x Large kits required in total:	
Staking System: 1 x Double round stake kits with half round cross bar, rubber Arb block and strapping.	
Tree Pit Irrigation System: 1 x RootRain Urban: The RootRain Urban is a large capacity irrigation system with a fixed grid inlet, particularly suited to open space and roadside verge tree planting in softscape. Spec. Length: 3m Diameter: 60mm Inlet (Stainless Steel) 80mm Weight: 1kg.	
Root Control System: 1 x RootDirector RD640A: Rigid, one-piece construction for directing tree roots into intended rooting zones and away from buildings, pavement and utilities	

TREE PLANTING SCHEDULE - [PROJECTED CANOPY AT 25 YEARS]					
TREES.					
QUANTITY	SPECIES	HEIGHT cm [(@ PLANTING)]	GIRTH cm / SIZE [(@ PLANTING)]	PROJECTED CANOPY RADIUS cm [(@ 25yrs)]	PROJECTED CANOPY COVER AREA m² [(@ 25yrs)]
1 No.	Prunus avium	350-400	12-14 / CG	350	40.4 m²



ECOLOGICAL ENHANCEMENT
HOUSE SPARROW nest-boxes x 3.
(see Preliminary Ecological Appraisal Ref. Marches Ecology, C454 dated 27th July, 2021 for further information)
The proposal presents an opportunity to enhance the site for a priority species known to be present in the area; the House Sparrow. Nest-boxes specifically designed for this species (e.g., Vivara Pro Woodstone Single Chamber House Sparrow Nest-box9, Schwegler Brick Box No.2410 or EcoSurv Sparrow11 nest-boxes) to be built into the new buildings ideally on north-east and or east elevations near planted.

LAWN AREA
Approx. 90m²

LAWN AREA
Approx. 10m²

3 No. Parking
Stones

45 No. Crataegus monogyna.
[9m length Section]

35 No. Crataegus monogyna. [7m length Section]

5 No. Rosa Kent
5 No. Carex divulsa

PLANT SCHEDULE					
HEDGE					
QUANTITY	SPECIES	HEIGHT cm	SIZE	TYPE	SPACING
80No.	Crataegus monogyna. [16m length Section]	60-80	BR		(Staggered row - 5 per metre)
SHRUBS & HERBACEOUS PERENNIALS.					
All planting areas to be dressed in Medium Grade ornamental bark mulch following planting.					
QUANTITY	SPECIES	HEIGHT cm	SIZE	TYPE	SPACING
5 No.	Rosa Kent	30-40	2lt	CG	600
GRASSES					
QUANTITY	SPECIES	HEIGHT cm	SIZE	TYPE	SPACING
5 No.	Carex divulsa	20-30	2lt	CG	600
GRASSWORKS SCHEDULE					
GENERAL LANDSCAPE TURF					
Total Turf Areas Combined: Approx. 100 m²					
Pro Turf 3 (With Rye economy) - DLF TRIFOLIUM - or similar approved					
30%	Stravinsky	-	perennial ryegrass		
45%	Rossinante	-	strong creeping red fescue		
25%	Wagner	-	chewings fescue		

OUTLINE PLANTING SPECIFICATION:

All planting operations and planting stock are to comply with current recommendations and requirements as set within current British Standard Specifications as below.

BS 8545: Trees: From Nursery to Independence in the landscape.
BS 3936-1:1992: Nursery Stock. Specification for trees and shrubs
BS 3882:2015 - Specification for topsoil
BS 4428:1989. Code of practice for general landscape operations (excluding hard surfaces (AMD 6784)
BS 5837: 2012 Trees in relation to design, demolition and construction.

SUBSOIL: Rip areas of planting where practical to a depth of 500mm using toothed bucket of excavator / JCB to break up compaction and allow free drainage. Note: No mechanical excavation within retained tree RPAs.

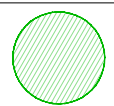
TOPSOIL: Existing topsoil to be stripped and removed.
All imported topsoil to comply with BS: 3882:2015. Ph 6-8, free of stone greater than 50mm in any dimension, perennial weed roots, builders rubble/waste, toxic materials and contamination.
Sample load to be provided and retained for comparison with subsequent deliveries.
Subsequent loads not consistent or complying to be removed from site and replaced at contractors cost.
Topsoil supply and spread by loose tipping to a minimum depth of 300mm.
Lightly firm layers in 150mm deep applications avoiding compaction. Grade to an even surface and marry in with adjacent soft landscape areas.
Finished levels adjacent to hard surfaces to be level with kerb unless otherwise instructed. Allow suitable settling time prior to final levels.
Cultivate to a fine tilth removing all stones over 50mm that come to the surface. Allow to settle and make good deficiencies, humps and hollows.
Remove any weed growth prior to any planting. Treating with herbicide a min of 10 days prior to planting.

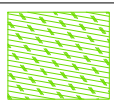
BARK MULCH: Applied to 75mm depth at each planted stock item covering 0.5m² area.
Main constituent conifer bark, maximum of 15% wood content and 5% fines. Particle size 5-65mm, free of pest disease or weed contamination.

TREE PLANT AND MIX LOCATIONS: Final positioning of all proposed tree planting and mix areas is subject to confirmation of service locations prior to planting mobilisation.

PLANTING SEASON: The planting of bareroot [BR] tree and shrub stock should only take place between mid-November and the end of March, subject to seasonal change. Tree planting of container grown stock [CG] can be planting throughout the year but recommended between Oct and April. The ground must not be frozen, waterlogged or dry. Seed mixes to be sown between August-September or March-April while the soil is warm and moist.

KEY
soft landscape

- 

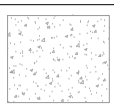
EXISTING RETAINED TREES
Retained trees and canopy boundary of existing trees, shrubs & hedges as positioned following Arboricultural report in support of Derwent Crescent, Action, Wrexham. ref. Sylvan Resources. Dated: 08/07/2021
- 

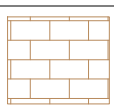
HEDGE PLANTING
SINGLE UK NATIVE SPECIES HEDGE PLANTING
Staggered double rows. 5 plants per linear metre for bareroot stock. Minimum 450mm depth of specific purpose free draining topsoil to BS 3882:2015 for hedge planting
[see Planting Schedule]
- 

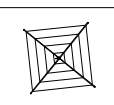
PLANTING BEDS
Minimum 450mm depth of specific purpose free draining topsoil to BS 3882:2015 for shrub planting etc.
[see Planting Schedule]
- 

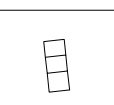
GRASSWORKS - PROPOSED LANDSCAPE TURF
Areas of proposed amenity grass turf installed upon a minimum of 150mm depth of specific purpose free draining topsoil to BS 3882:2015. Soil leveled and prepared to a fine tilth prior to turf laying. (See Grassworks Schedule for further details)

hard landscape

- 

HARD LANDSCAPE - PROPOSED TARMAC
Proposed tarmac access drive.
Finish: Blacktop
To Structural Engineer specification
- 

HARD LANDSCAPE - PROPOSED PAVING STONE AREAS
To Structural Engineer specification
- 

ROTARY WASHING LINE SYSTEM
- 

REFUSE STORE POINT

boundary treatment

F1 - 1.8m treated timber Closeboard fence system with timber post & gravel board

G1 - 1.8m treated timber Closeboard matching pedestrian gate

All works to conform to
BS 5837:2012 Trees in relation to design, demolition and construction. Plus conforming to arboricultural method statements.
BS 4428:1989 Code of practice for general landscape operations (excluding hard surfaces)
BS 8545:2014 Trees: from nursery to independence in the landscape. Recommendations ASTM D5268 - 13
Standard Specification for Topsoil Used for Landscaping Purposes
NOTE:
This drawing indicates design arrangement only. All works to be undertaken in accordance with best practice and all current BS & Building Regulations.
Do not scale from drawing. Use figured dimensions only after checking.

A	Drawing scale change to 1:500	03.05.2022
Rev	Description	Date



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Client
WREXHAM COUNTY BOROUGH COUNCIL

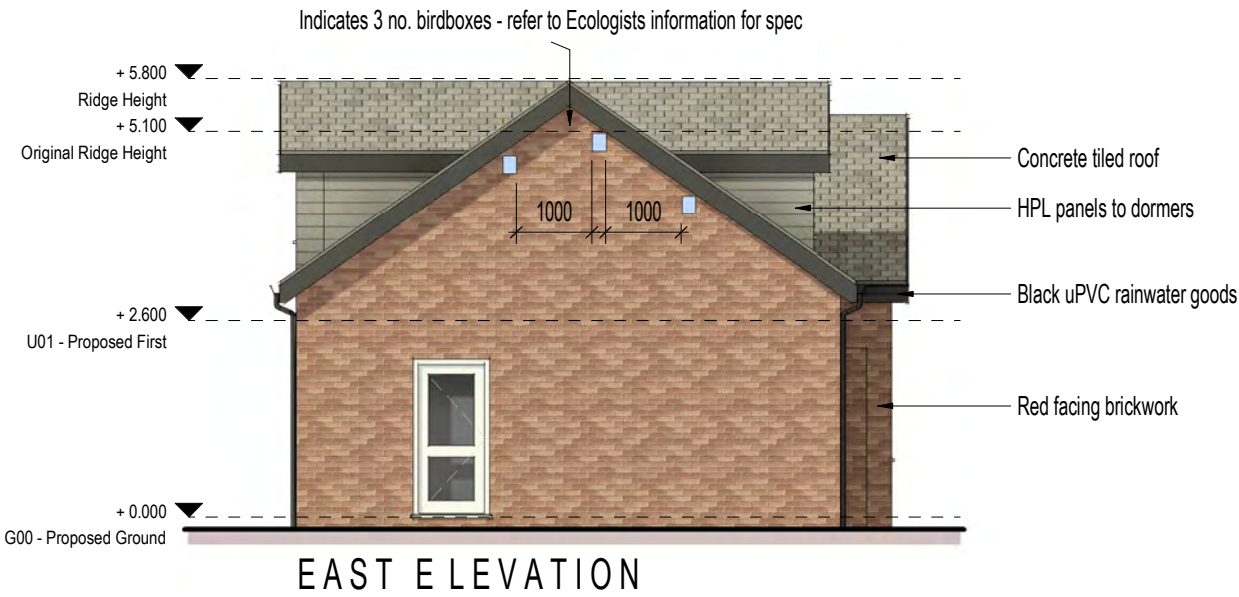
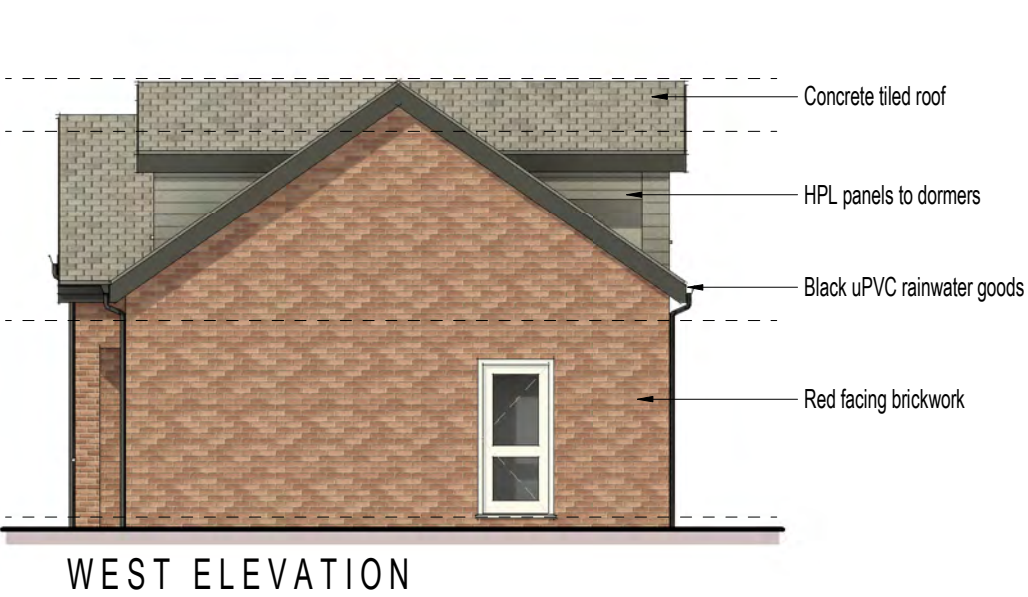
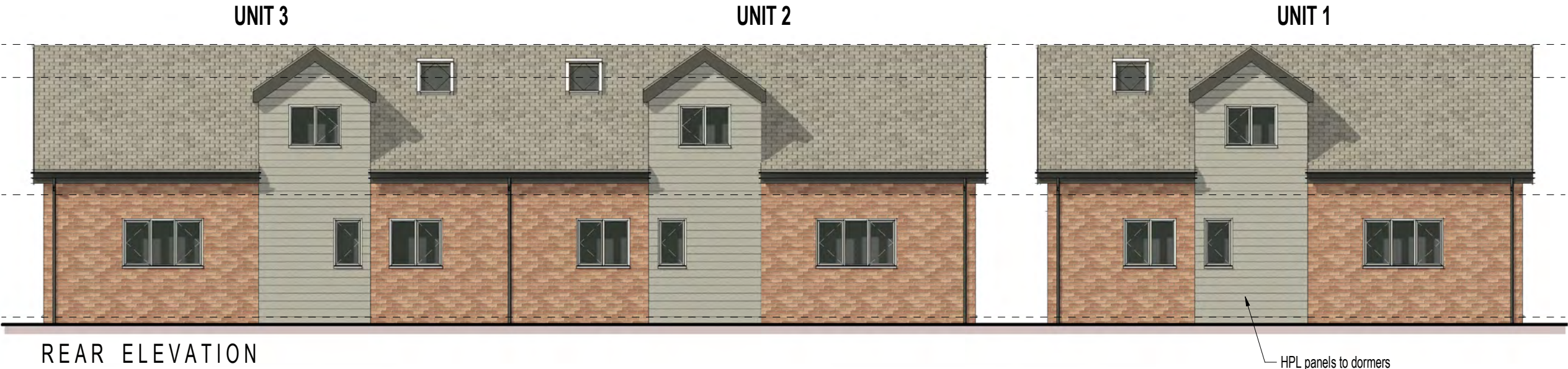
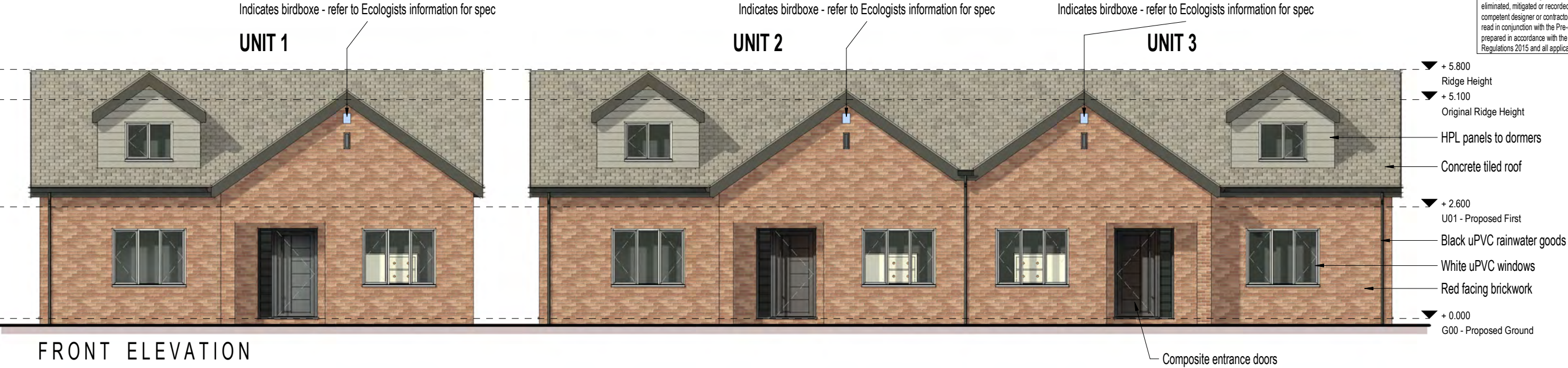
Project Name
ACTION HOUSING
DERWENT CRESCENT #2
WREXHAM

Drawing Title PROPOSED LANDSCAPE PLAN		
Drawing No. PJC-1110-001	Scale A2 - 1:500	Revision A
Drawn TR	Signed	22.02.2022
Designed	TR	22.02.2022

Bird-box Provision

Construction (Design and Management) Regulations

Design risk assessments are carried out throughout the design stage of this project in accordance with company procedures and manuals. Where reasonably possible all areas of risk applicable to design and end use of the construction have been identified and then eliminated, mitigated or recorded as a residual risk. Note that general risks of which a competent designer or contractor should be aware are not included. This drawing is to be read in conjunction with the Pre-construction Information and all related documents prepared in accordance with the current Construction (Design and Management) Regulations 2015 and all applicable Health and Safety legislation as currently amended.



P06	Bird box position updated	22/11/2023
P05	Bird box locations added to drawing	21/11/2023
P04	Revised scale to 1:100 TB KO'H KO'H	18/11/2021
P03	Revised issue AJ KO'H KO'H	20/10/2021
P02	Revised issue CH KO'H KO'H	01/09/2021
P01	Initial issue CB CB CB	30/07/2021
REV	DESCRIPTION DRAWN BY CHECKED BY APPROVED BY	DATE
RIBA PLAN OF WORK 2013 WORKSTAGE		LEVEL OF MODEL DEFINITION (LoD)
Stage 2 - Concept Design		LoD 2 - Conceptual Model
PURPOSE OF ISSUE - SUITABLE FOR ...		BS1192 STATUS
Information		Status S2 - Information

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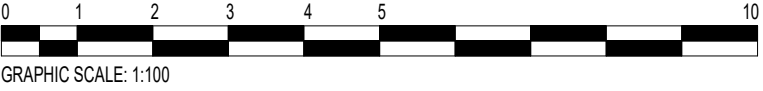
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LONDON 0207 138 3560
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CLIENT
WCBC

PROJECT TITLE
Acton Housing WCBC

DRAWING TITLE
Derwent Crescent 1 - Proposed Elevations

PROJECT No 19545	SCALE @ A3 1 : 100
DRAWING No BS1192:2007 +A2:2016) & BS EN ISO19650	PROJECT - ORIGINATOR - VOLUME - LEVEL - TYPE - ROLE - NUMBER AHW-LAW-X-X-DR- A-062001 P06
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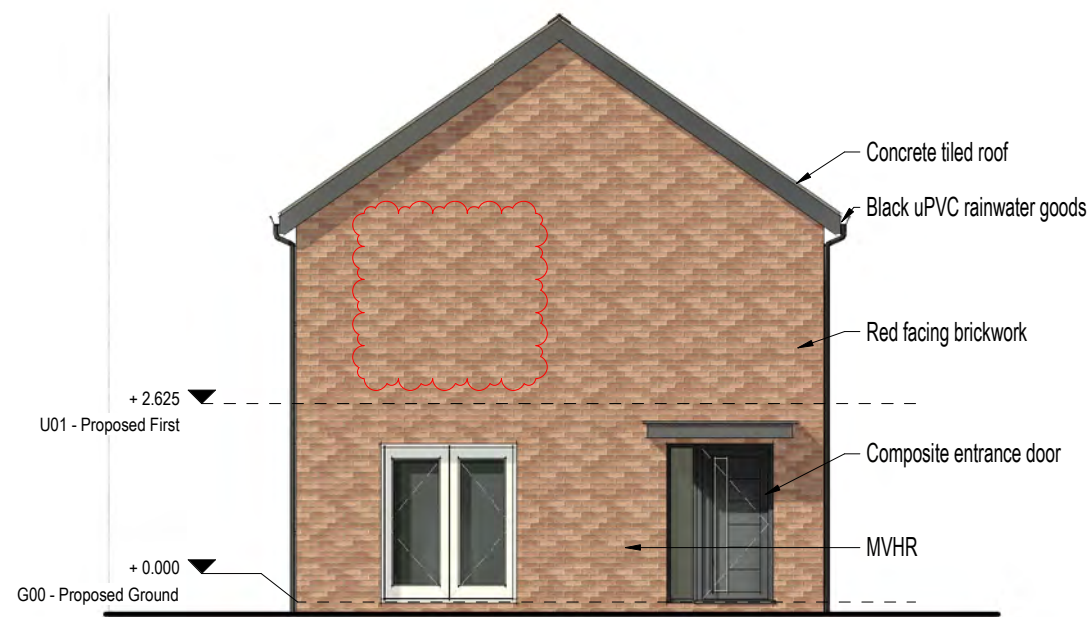
EAST ELEVATION



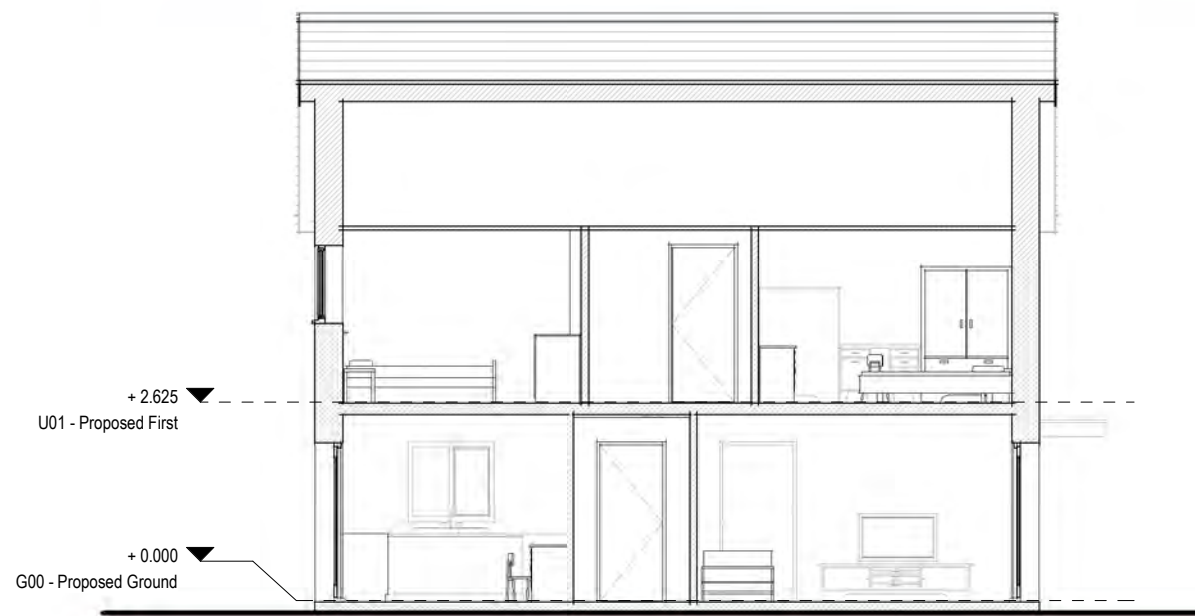
NORTH ELEVATION



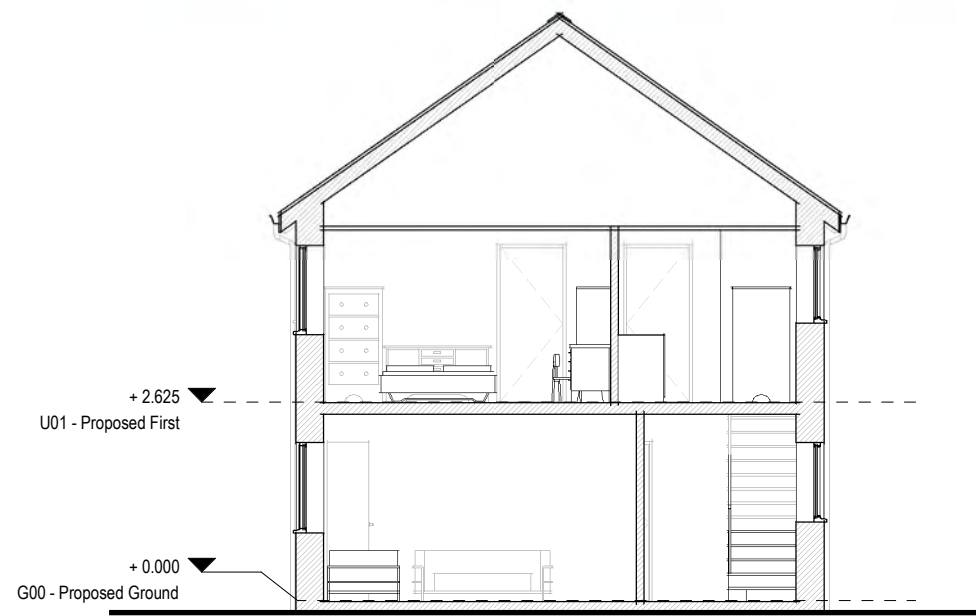
WEST ELEVATION



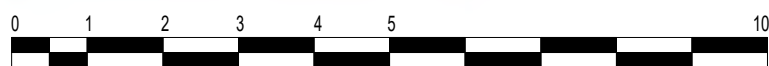
SOUTH ELEVATION



SECTION A



SECTION B



GRAPHIC SCALE: 1:100

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P08	Proposed birdboxes added to elevations	21/11/2023
P07	Changes in response to planning comments TB KOH KOH	17/03/2023
P08	Changes in response to planning comments TB KOH KOH	17/03/2023
P06	MVHR moved JW KOH	10/02/2022
P05	Revised following Grant Application Feedback JW KOH	20/01/2022
P04	Added section and revised scale to 1:100 TB KOH KOH	18/11/2021
P03	Revised issue AJ KOH KOH	20/10/2021
P02	Revised issue CH KOH KOH	01/09/2021
P01	Initial issue CH CB KOH	30/07/2021
REV	DESCRIPTION DRAWN BY CHECKED BY APPROVED BY	DATE
RIBA PLAN OF WORK 2013 WORKSTAGE		LEVEL OF MODEL DEFINITION (LoD)
Stage 2 - Concept Design		LoD 3 - Approximate Model
PURPOSE OF ISSUE - SUITABLE FOR ...		BS1192 STATUS
Information		Status S3 - Review & Comment

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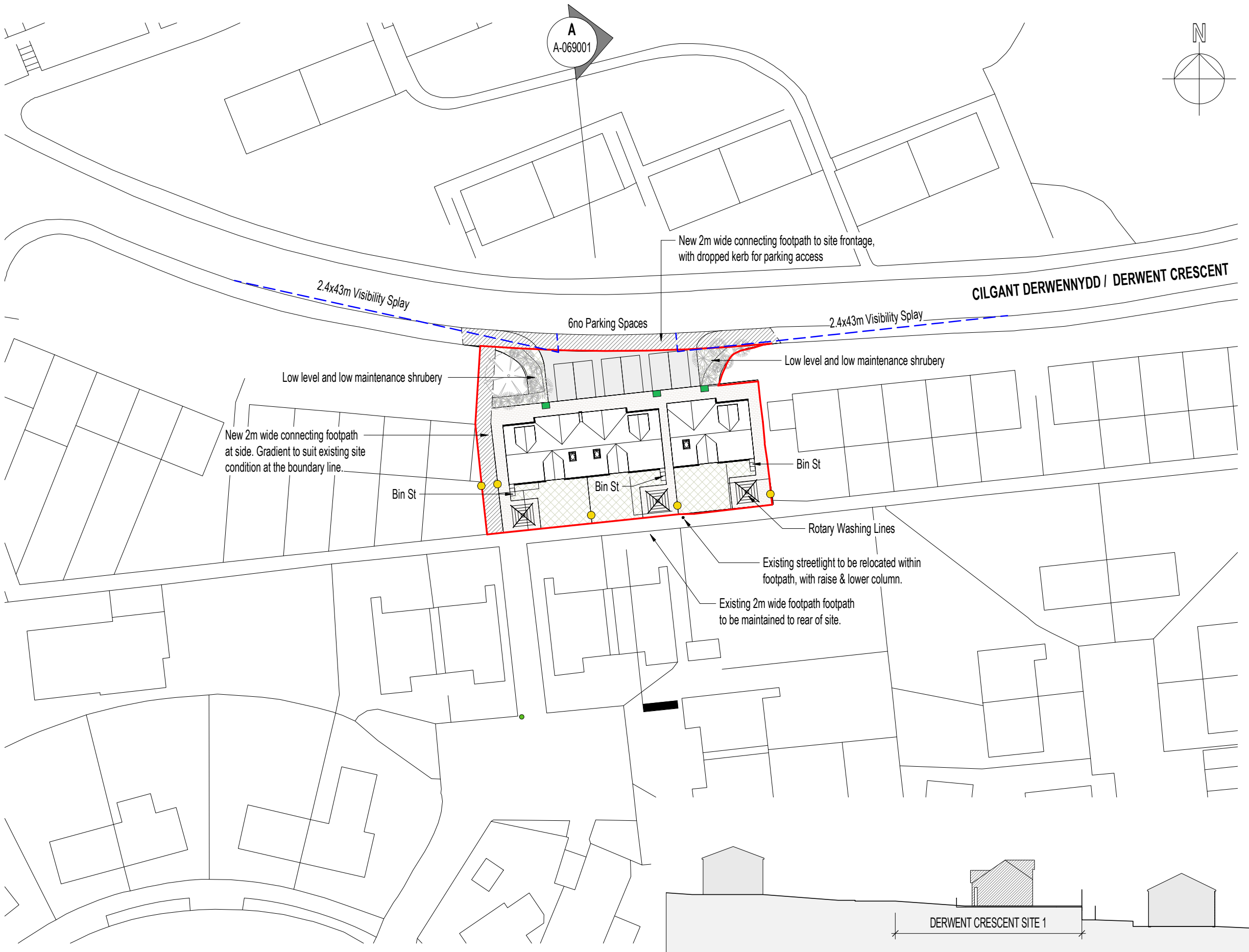
CLIENT
WCBC

PROJECT TITLE
Acton Housing WCBC

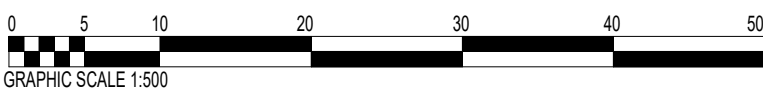
DRAWING TITLE
Derwent Crescent 2 - Proposed Elevations & Section

PROJECT No 19545	SCALE @ A3 1 : 100
DRAWING No BS1192:2007 +A2:2016) & BS EN ISO 19650	PROJECT - ORIGINATOR - VOLUME - LEVEL - TYPE - ROLE - NUMBER REVISION
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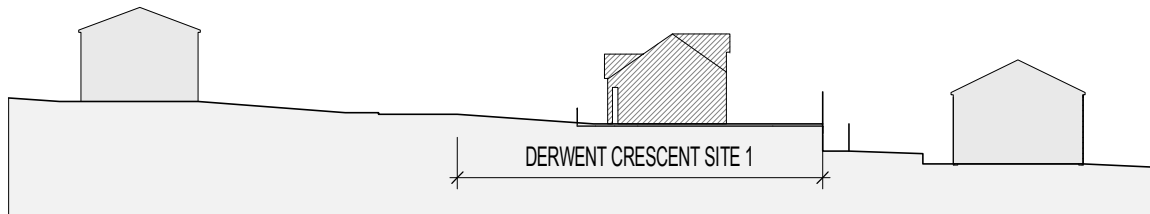
Hedgehog Hole Provision



DERWENT CRESCENT 1 - PROPOSED SITE PLAN



DERWENT CRESCENT 1 - PROPOSED SITE SECTION A



Construction (Design and Management) Regulations

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Please Note
Levels shown are indicative and proposed building FFL is to be confirmed prior to commencement on site.

SITE BOUNDARIES

BIN COLLECTION POINTS

HEDGEHOG HOLE
(as per Ecologist's requirement)

P06	Hedgehog openings amended CB CB CB	12/12/2023
P05	Hedgehog openings added to drawing CB CB CB	11/12/2023
P04	Changes in response to highways comments TB KO'H KO'H	17/03/2023
P03	Added Site Section TB KO'H KO'H	19/11/2021
P02	Revised scale to 1:500 TB KO'H KO'H	18/11/2021
P01	Initial issue AJ KO'H KO'H	20/10/2021
REV	DESCRIPTION DRAWN BY CHECKED BY APPROVED BY	DATE
RIBA PLAN OF WORK 2013 WORKSTAGE		
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Information		Status S2 - Information

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PROJECT TITLE
Acton Housing WCBC

DRAWING TITLE
Derwent Crescent 1 - Proposed Site Plan & Section

PROJECT No	19545	SCALE @ A3	As indicated
DRAWING No	PROJECT - ORIGINATOR - VOLUME - LEVEL - TYPE - ROLE - NUMBER	REVISION	
BS1192:2007 BS EN ISO 19650	AHW-LAW-X-X-DR-	A-069001	P06
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