

Construction & Environmental Management Plan



Northern Gateway Phase 2, Deeside



**Tyler
Grange**

TG Report No. 13933_R01c_LCD_HM

Report No:	Date	Revision	Author	Checked
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13933_P01b_Habitat Features plan

Section 1: Introduction and Site Context

- 1.1. This report has been prepared by Tyler Grange Group Ltd on behalf of Bellway Homes Ltd (North West) and provides a Construction Environmental Management Plan (CEMP) for Northern Gateway Phase 2, Deeside (Phase 2 of the former Enabling Works plots). The application seeks the approval of the reserved matters of layout, scale, appearance, landscaping and access pursuant to outline planning permission (ref. 059635) for the erection of 400 dwellings, public open space including play facilities, and other associated works.
- 1.2. Conditions 17 and 18 of the above planning consent require the submission of a CEMP to Flintshire Council in writing prior to the commencement of any works on site. Condition 19 is addressed separately in a habitat management plan.
- 1.3. Condition 17 – *'The measures set out in the Framework Ecological Mitigation Strategy (FEMS) shall be implemented in accordance with the submitted details or further details to be agreed as required by the Strategy for each species unless otherwise agreed in writing by the Local Planning Authority. A timetable for their implementation and a monitoring regime for the mitigation for each species shall be submitted prior to the commencement of each phase of development on site.'*
- 1.4. Whilst this CEMP does not address Condition 17 directly, the principles of mitigation set out in the approved FEMS have been adopted in this CEMP.
- 1.5. Condition 18 – *'Unless otherwise agreed in writing, prior to the commencement of each phase of the development a Construction Environmental Management Plan (CEMP) for that phase shall be submitted to and approved in writing by the Local Planning Authority. The development shall be implemented in accordance with the approved Plan.'*
- 1.6. This CEMP provides details of the ecological mitigation required for compliance with the above planning conditions and will be submitted to Flintshire Council for approval. It must be read alongside the Environmental Statement Update – Ecology Technical Paper submitted to accompany the S73 application to vary planning conditions on Planning Approval ref: 054758) (ref. 10647/ R01) and the CEMP for the Enabling Works of Phases 1B, 2 and 3 which is currently pending consideration (ref. 10647/ RO6a). Both reports have been produced by Tyler Grange Group Ltd and have informed this CEMP.
- 1.7. The proposed scope of works in relation to this submission for discharge of the above conditions comprises the construction of residential units within the site (see **Appendix 1**) with associated access, landscaping and infrastructure. The enabling works for the site would precede the application sought in this document and would provide all of the necessary works to Garden City Drain to enable this application, along with associated landscaping, utilities connections and provision of swales.
- 1.8. It is to be noted that the contents of this document are dependent on the approval of the CEMP for the enabling works for this plot (Tyler Grange Report reference 10647/RO6a, dated January 2021) and the scope may require additions dependent on the application outcome.



- 1.9. Detailed landscape plans are yet to be produced, however, an overall sketch layout produced by Astle Planning & Design Limited is provided in **Appendix 1** (ref. PL03_A). The works have been approved for outline planning for employment and residential use (Planning ref: 057404) and this CEMP is to be revisited once final masterplans have evolved prior to the submission of the Reserved Matters application. Northern Gateway Phase 2 work area is hereinafter termed 'the site,' with the wider development area being termed 'the wider site'.
- 1.10. To assist in the preparation of this CEMP, a number of ecological surveys were completed within the site during 2020 and 2021 and are discussed in **Section 2** of this report.



Section 2: Methods and Baseline Conditions

Extended Phase 1 Habitat Survey

- 2.1 A Review of the Ecological Assessment Report, Tyler Grange report – 10647_R01 was undertaken, in conjunction with the overall planning layout (see **Appendix 1**) to identify which ecological features could potentially be affected by the enabling works.
- 2.2 An extended phase 1 survey of the site was carried out by Amy Sherwin who is an experienced ecologist and member of CIEEM on 15th March 2021. Previous ecological walkovers relating to the enabling works application for the site were also undertaken in 2020 by Tyler Grange and detailed in report *10647_R06a* dated January 2021.
- 2.3 The weather conditions for the survey were dry, partly cloudy, a light breeze (BFS 1) and a temperature of 4°C.
- 2.4 Using the above method, the site was classified into areas of similar botanical community types with a representative sample of those species present at the time of the survey being described.
- 2.5 The habitats were unchanged since previous assessments and predominantly comprised arable crop and species-poor pasture, which has been continuously present in the site throughout the course of all surveys completed across the site. The distribution of habitats within the site as the time of surveys in 2021 is illustrated in drawing 13933/P01b appended to this report.
- 2.6 Additionally, incidental records of fauna were also made during the survey and the habitats identified were evaluated for their potential to support legally protected and priority species. No badger setts or signs were recorded however, two trees proposed for removal with bat roost potential were observed (see 13933/P01b and bat section below).

Preliminary Bat Roost Assessment of trees

- 2.7 An update ground-level preliminary roost assessment of the trees within the site was undertaken during the extended phase one habitat survey by Amy Sherwin, who is appropriately experienced in conducting such assessments. This survey followed those previously completed by Tyler Grange Group Ltd. in October and December 2020 in relation to report *10647/R06a*.
- 2.8 All surveys were daytime inspections from ground-level, assisted with the use of binoculars and the conditions were considered optimal. The location of the trees proposed for removal with bat roost potential are shown on drawing 13933/P01b appended to this report. All were inspected from the ground using binoculars, and a high-powered torch for evidence of usage by roosting bats, or potential roosting opportunities. Evidence which may indicate the presence of roosting bats in relation to trees, include woodpecker holes, frost cracks, deadwood, knot holes and limb wounds.
- 2.9 The potential of the trees to support roosting bats was assessed using the criteria given in **Table 2.1** below.



Table 2.1: Roost suitability assessment criteria for buildings/structures and trees – adapted from Collins, 2016.

Suitability	Description of Roosting Habitats
Negligible	Negligible habitat features on site suitable for use by roosting bats.
Low	A tree of sufficient size and age to contain Potential Roost Features (PRFs) but with none seen from the ground, or features seen with only very limited suitability.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only).
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time.

- 2.10 One tree within the site proposed for removal was assessed as providing low bat roost potential, based on the presence of ivy on the trunk or with very limited and singular roost features on trees. This tree has been labelled as Tree T1 on drawing 13933/P01b appended to this report. T2 present on the drawing is no longer scheduled for removal as part of these works following variation in the red line boundary that occurred after the preliminary roost assessment was undertaken. However, for completeness the following sections give a description of both of these trees:
- 2.11 T1 – mature sycamore in former garden area, with small potential roost feature on northern side – considered to be of low bat roost potential.
- 2.12 T2 – mature sycamore on northwest side of Garden City Drain with a lost limb hole on NNW side of tree – considered to be of low bat roost potential.
- 2.13 Based on the results of the surveys completed in 2021 and those previous, the following potential ecological constraints and impacts were identified:
- Badgers – potential for disturbance/damage of setts;
 - Bats – potential for disturbance/damage of roosts;
 - Breeding birds – potential for damage/destruction of active nests;
 - Reptiles – potential for killing/injury of individual reptiles;
 - Water vole/Otter – very low potential for damage to water vole burrows/disturbance;
 - Pollution of watercourses
- 2.14 Tables containing the relevant mitigation measures to be adopted into the construction phase of the development are provided below in **Section 3**.



Section 3: CEMP Mitigation Measures

3.1. **Table 3.1** below sets out the relevant potential ecological constraints associated with the development and any necessary surveys and mitigation to be implemented for it.

Ecological Constraint	Purpose of the Action	Detail of the Action	Responsibility	Report Reference
Amphibians	N/A	See reptile section.	Tyler Grange – responsible for supervising habitat removal and for conducting toolbox talk to contractors. Appointed contractor – responsible for complying with any instructions regarding the safeguarding of reptiles and amphibians.	Ecological Assessment TG report – 10647/R01 and CEMP 10647/R06a
Badger	To avoid disturbance / destruction of badger setts.	During the 2020 updated badger survey, no evidence of badger was seen across the site. However, the species is known to be present in the area and therefore a pre-commencement check is required within the site and all surrounding land within 30m of the red line boundary, where access and views permit. In the unlikely event any setts are recorded, a mitigation strategy for the retention and protection of the sett will be prepared and adhered to, or a licence acquired for sett closure from Natural Resources Wales (NRW) where this is not possible.	Tyler Grange - responsible for surveys and design / implementation of mitigation. Appointed contractor - Responsible for observing any exclusion zones around setts.	Ecological Assessment TG report – 10647/R01 and CEMP 10647/R06a
Bats	To avoid disturbance / destruction of bat roosts	Of the trees to be felled as part of this application, one was assessed as providing low bat roost potential. All others to be lost were considered to be of negligible bat roost potential. No further surveys are required prior to the felling of this tree but, in line with best-practice, it is recommended that it is subject to soft-felling techniques. This entails: <ul style="list-style-type: none"> • Tree clearance to be conducted outside of the winter hibernation or summer maternity period (optimal time April or September/October; • Tree felled sectionally and with each limb carefully lowered to the ground; • Limbs left on the ground for a period of 24 hours; • After 24 hours, each limb to be removed from site and/or chipped on-site; In the event a bat is observed leaving the tree or any felled limb during these works, all further works to the given tree must stop immediately and advice sought by a SQE. It should be noted that tree removal is proposed as part of the enabling works application discussed in CEMP 10647/R06a but has been repeated in this document in the event that this item is deferred to a later contract (i.e. the responsibility of Bellway)	Tyler Grange – responsible for surveys and any required mitigation or consult with NRW. Appointed contractor - Responsible for complying with any instructions regarding the safeguarding of these trees prior to surveys and post surveys if necessary.	Current report and CEMP 10647/R06a
Breeding birds	To avoid disturbance to birds during the breeding season.	Where vegetation/site clearance works extend into the bird breeding season (March - August inclusive) and beyond the enabling works application, a suitably qualified ecologist (SQE) from Tyler Grange will undertake a pre-commencement survey of the land to be cleared and any associated access to check for the presence of breeding birds. This applies to all types of vegetation removal (i.e. grassland/scrub/trees/ruderal vegetation) and arable clearance as well, given the risk of ground-nesting birds (i.e. lapwing <i>Vanellus vanellus</i>). If a nest is found, an exclusion zone (commensurate with the level of disturbance risk) will be set up and works will avoid the exclusion zone until it has been confirmed by a SQE that nesting is complete. As some species of bird (mainly pigeons and doves) can nest year-round, due diligence must be shown for the removal of trees even if conducted outside of the 'core' nesting season as	Tyler Grange – responsible for surveys. Appointed contractor - responsible for observing exclusion zones for nesting birds should nesting birds be found. Responsible for due diligence outside of nesting season.	Ecological Assessment TG report – 10647/R01 and CEMP 10647/R06a



		this is the only habitat which could support species which nest outside of the accepted 'core' nesting period. This would comprise an initial inspection of the tree by the appointed contractor – if an active nest were suspected works would need to stop and advice sought from the SQE.		
Invasive Species	To avoid the spread of invasive plant species included in Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).	No invasive species recorded during surveys in 2020 or the updated visit in 2021. A pre-commencement survey of the works area and any associated access to check for the presence of invasive plant species. Where found, the location of invasive plants would be mapped and either: an exclusion zone would be set up around them so that the risk of disturbance is avoided during the enabling works; or measures to prevent their spread would be implemented in accordance with relevant Environment Agency Guidelines.	Tyler Grange – responsible for identifying any stands of invasive species in enabling works area. Appointed contractor - responsible for any invasive species control which may be required throughout duration of enabling works.	Ecological Assessment TG report – 10647/R01 and CEMP 10647/R06a
Otter	To avoid damage / destruction of otter resting places / disturbance of otter.	The works which would affect Garden City Drain and otter habitat would be undertaken as part of the enabling works application (see CEMP 10647/R06a) and therefore impacts to otter as a result of this application would be minimal. As a precaution, however, in the event that the development works are significantly delayed beyond the initial enabling works, a pre-commencement otter survey will be undertaken of Garden City Drain at the same time as the water vole survey to inspect for otter holts which may be present in proximity to development activity (although garden city drain itself would remain unaffected as part of this application. (Although highly unlikely, if an otter resting place is found, NRW would need to be consulted for mitigation requirements).	Tyler Grange – responsible for surveys and any liaison with NRW should it be necessary along with supervision during monitored vegetation clearance. Appointed contractor - Responsible for complying with any instructions regarding the safeguarding of otter resting places should they be confirmed by surveys.	Ecological Assessment TG report – 10647/R01 and CEMP 10647/R06a
Reptiles and amphibians	To avoid killing/injury of reptiles and amphibians	The works which would affect Garden City Drain and reptile habitat would be undertaken as part of the enabling works application (see CEMP 10647/R06a) and therefore impacts to reptiles as a result of this application would be minimal. As a precaution, however, in the event that development works are significantly delayed beyond the initial enabling works and vegetation is allowed to re-grow or the re-location and installation of outfalls is required as part of the detailed design, the measures outlined in the CEMP for the enabling works should also be adopted for this scheme. Habitat manipulation works within the areas along Garden City Drain to be cleared for outfall connections will be carried out under supervision of a SQE to identify any reptiles that may be present and ensure killing/injury is avoided. This manipulation involves the reduction of suitable habitat within the proposed clearance areas where reptiles were recorded. This would be achieved by: <ul style="list-style-type: none"> • Completing the necessary vegetation clearance between the months of April and September inclusive, when reptiles are active and not hibernating; • An initial cut of scrub/grass habitat down to 150mm at a slow walking pace. • Following the initial cut, the SQE would conduct a hand search of the cleared areas to relocate any reptiles or amphibians which may not have dispersed away during the initial cut. 	Tyler Grange – responsible for supervising habitat removal and for conducting toolbox talk to contractors. Appointed contractor – Responsible for complying with any instructions regarding the safeguarding of reptiles and amphibians.	Ecological Assessment TG report – 10647/R01 and CEMP 10647/R06a



		<ul style="list-style-type: none"> Once the hand search has been completed and reptiles/amphibians relocated to a safe area away from works, the vegetation can then be taken down to ground level at a slow walking pace, following the procedures outlined above. <p>This habitat manipulation and clearance of suitable habitats will disperse the reptiles into the unaffected areas of Garden City Drain.</p> <p>Population monitoring in respect of reptiles would be undertaken during the summer following completion of the works then at 2 years and 10 years post development (in line with proposals set out in Table 7.3 of Section 7 of the FEMS).</p>		
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Water vole	To avoid disturbance to water vole / damage / destruction of water vole burrows	<p>Although historic surveys have confirmed the presence of water vole in Garden City drain, the most recent surveys completed in 2019 and 2020 (see CEMP 10647/R06a) have failed to record any conclusive evidence, although their presence is likely. Their presence in this watercourse is, therefore, considered to be sporadic.</p> <p>Works which would affect Garden City drain would be undertaken as part of the enabling works application (see CEMP 10647/R06a), are minor and comprise two surface water outfall connections (locations to be determined and flexible) in association with all phases, along with vegetation clearance and bank re-profiling of 20m of the eastern bank of Garden City drain at its most northern section adjacent to Phase 1B to facilitate the installation of the proposed weir. This location is heavily shaded by overhanging trees, with very steep and unvegetated banks and is considered largely unsuitable for water vole. The remainder of Garden City drain remains suitable as it is densely covered with vegetation (grasses and ruderals). The proposed outfall works would affect this habitat, but would only be minor in scale (i.e. small areas of bank works to install outfall pipes).</p> <p>Although the risk to water vole is considered to be low in association with these works, given their confirmed historic presence and possible existing presence, it has been recommended that an updated water vole survey is completed prior to the enabling works commencing and also any works associated with the current application which could affect garden city drain. This will establish the presence or likely absence of water voles in the drain and inform the location of the outfalls into the drain, which will be located to avoid confirmed water vole burrows.</p> <p>Where water vole presence is confirmed or suspected the following mitigation would be implemented.</p> <p>This work will need to be undertaken during the period Mid- February – Mid April. The works described below should be supervised by a SQE.</p> <ul style="list-style-type: none"> Directional strimming of vegetation down to ground level (and raked off) towards habitat areas beyond the enabling works area that will be retained during the works, followed by a soil strip of banks to remove remainder of vegetation; <p>Following the strimming / soft strip of vegetation, a daily check for water vole signs would be undertaken for a period of five days within the cleared area;</p> <ul style="list-style-type: none"> Should any water vole signs be identified that suggest use, a trapping and translocation or displacement exercise may be required, the recommended displacement period for lowland sites is 15th February – 15th April; 	<p>Tyler Grange – responsible for surveys and any liaison with NRW should it be necessary along with supervision during monitored vegetation clearance.</p> <p>Appointed contractor - Responsible for complying with any instructions regarding the safeguarding of water vole (should presence be confirmed by surveys).</p>	<p>Ecological Assessment TG report – 10647/R01 and current report.</p>
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		<p>Following completion of vegetation removal and confirmation of water vole absence from the works area, exclusion fencing may need to be erected around works area to prevent re-colonisation by water voles, or regular vegetation management to render the banks unsuitable for water vole and preclude their dispersal into the cleared areas.</p> <ul style="list-style-type: none"> Following works completion, the new swales and Garden City drain within the enabling works area will be subject to habitat enhancement as per section 8.43 of the FEMS. Population monitoring in respect of water vole would be undertaken during the summer following completion of the enabling works then at 5 years and 10 years post development (in line with proposals set out in Table 8.6 of Section 8 of the FEMS). <p>If no evidence of water vole is encountered, or the location of outfalls can coincide with areas where water voles are not present and would not be disturbed, no further mitigation is considered necessary.</p>		
Water courses	Pollution prevention into nearby Garden City Drain	<p>All works must comply with all relevant pollution prevention guidance in this case: Guidance on Pollution Prevention:</p> <ul style="list-style-type: none"> Works and maintenance in or near water: EGPP 5. <p>It is recommended that the client implements measures for pollution prevention within a water pollution method statement.</p>	Appointed contractor	Ecological Assessment TG report – 10647/R01 and CEMP 10647/R06a
Wintering birds	Avoid disturbance of bird species using adjacent fields for grazing in winter.	<p>Monitoring of bird movements on land adjacent to site clearance areas (i.e. across grassland) to be undertaken during monthly Ecological Clerk of Works (ECoW) visits.</p> <p>If necessary, erect hoarding to reduce noise / visual disturbance to wintering birds.</p>	<p>Tyler Grange to advise on the need for mitigation based on monitoring.</p> <p>Appointed contractor to erect hoarding, if necessary</p>	Ecological Assessment TG report – 10647/R01 and CEMP 10647/R06a



Section 4: Conclusions

- 4.1. Provided the measures detailed in Table **3.1** are implemented, the works should comply with relevant legislation and polices protecting wildlife and habitats and proceed in accordance with the approved FEMS for the site.



Appendix 1: Overall Planning Layout



Northern Gateway, Parcel 4

PLANNING LAYOUT - OVERALL

Development Key:-

- Proposed adoptable highway
- Denotes existing buildings
- Planning Application Boundary
- Proposed Shared Private Drives
- Group Single Garage
- Group Sales Garage
- Group Twin Garage
- Proposed indicative soft landscaping. Refer to landscaping design for further details
- Proposed substation
- Cycle / Pedestrian Way
- Open Space

Key Plan

Sheet 1 of 2 | Sheet 2 of 2

OVERALL ACCOMMODATION SCHEDULE & AREAS

Name	Ref	Bed	Storey	Unit No's	Unit ft²	ft² Total
Open Market Dwellings						
Bowyer	BO 4B	4 Bed	2	18	1356	24408
Reedmaker	RE 4B	4 Bed	2	30	1309	39270
Schriener	SC 4B	4 Bed	2	33	1214	40062
Farrer	FA 4B	4 Bed	2	32	1155	36960
Sawyer	SY 3B	3 Bed	2	20	1083	21660
Mason	MA 3B	3 Bed	2	8	1059	8472
Ballister	BS 3B	3 Bed	2.5	20	1057	21140
Baxter	BX 3B	3 Bed	2	24	992	23808
Lymmer	LY 3B	3 Bed	2	56	985	55160
Quiler	QU 3B	3 Bed	2	2	954	1908
Chandler	CH 3B	3 Bed	2	32	951	30432
Thespien	TH 3B	3 Bed	2	13	921	11973
Taylor	TA 2B	3 Bed	2	73	802	58546
Joiner	JO 2B	2 Bed	2	16	680	10880
Slater	SL 2B	2 Bed	2	1	789	789
Lardner	LP 3B	3 Bed	2	5	859	4295
Piper	LP 3B	3 Bed	2	5	871	4355
Soutler	SG 1B	1 Bed	2	6	550	3300
Glover	SG 2B	2 Bed	2	6	700	4200
Total:				400 Units		401618 ft²

Gross Site Area:	13.90 ha	34.35 ac
Site Statistics:		
SSR	0.31 ha	0.77 ac
POS/Greenspace	1.78 ha	4.40 ac
Nett Site Area:	11.81 ha	29.18 ac
Gross Density:	28.78 Un/ha	11.65 Un/ac
Nett Density:	33.87 Un/ha	13.71 Un/ac
Gross Footage:	2684.29 m²/ha	11692.74 Un/ac
Nett Footage:	3159.32 m²/ha	13761.98 ft²/ac

*Note - All Areas Approx.
Abbreviations
Ac = Acres | ha = Hectares | ft² = Square Feet | m² = square | Un = Units Metres |
SSR = Single Sided Road | POS = Public Open Space | Det = Detached | Apt =
Apartment | Int = Integral | Sg = Single | Dbl = Double



References

- Highways - tbc
- Topographical Survey - tbc
- Red Edge Boundary - tbc



Bellway

Project: Northern Gateway Parcel 4

Drawing Title: PLANNING LAYOUT OVERALL

Drawn by: JNL | Checked by: [] | Date: Aug 2021

Status: PLANNING | Scale: B/A3 | 1:1000

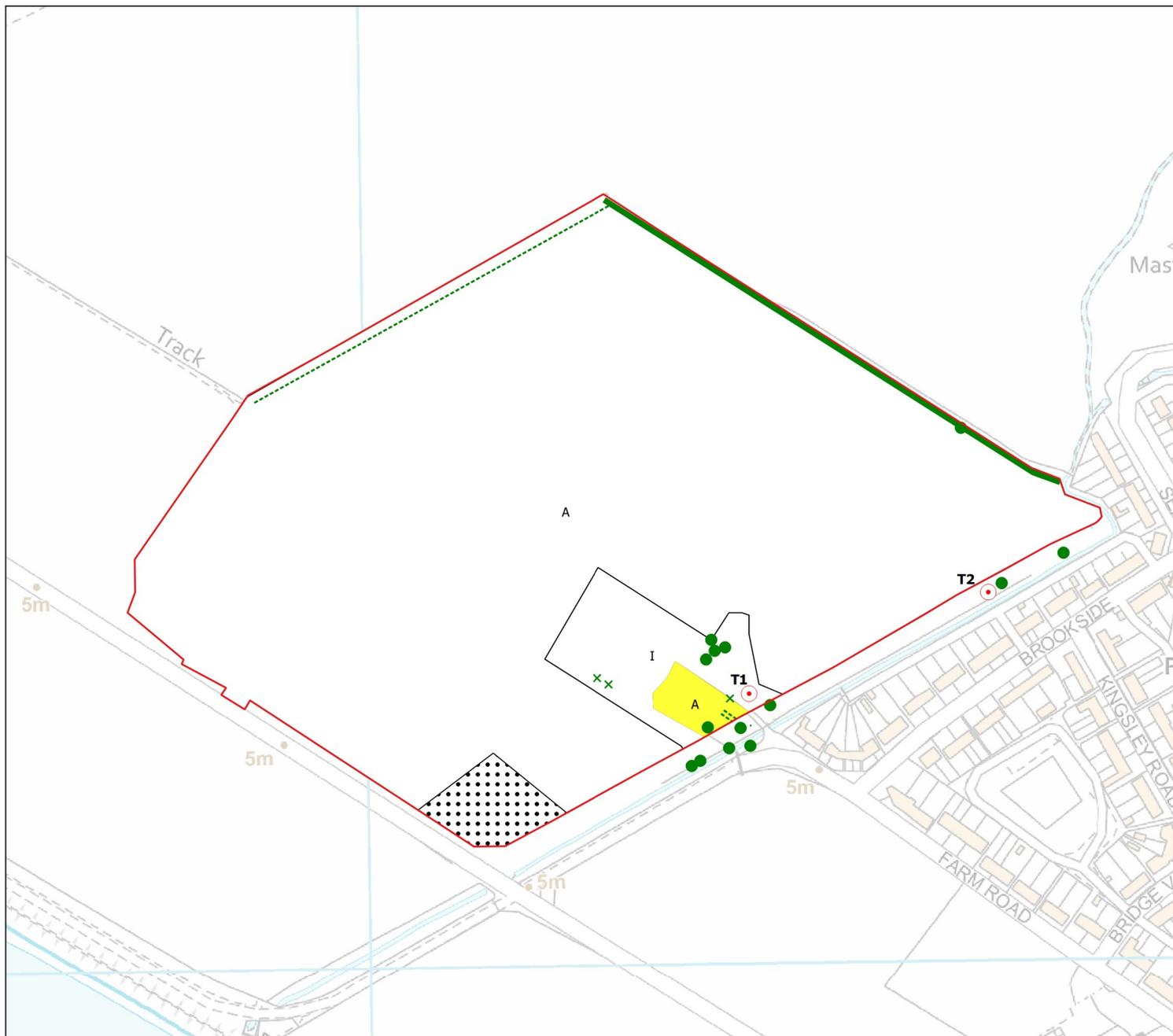
Job no.: BHNW115 | Dept: PL03 | Rev: A

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Plans:

13933/P01b_Habitat Features Plan





- Site Boundary
- A Amenity grassland
- A Arable
- Bare ground
- I Improved grassland
- Trees to be surveyed
- Scattered trees
- × Scattered scrub
- Defunct species-poor hedgerow
- Intact species-poor hedgerow



Project Northern Gateway Phase 2, Deeside
Drawing Title Habitat Features Plan
Scale As Shown (Approximate)
Drawing No. 13933/P01b
Date 8th September 2021
Checked LCD/JD



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