Stanmore Village, Bridgnorth

Arboricultural Appraisal

Prepared by:
The Environmental Dimension Partnership Ltd

On behalf of:
Stanmore Consortium

September 2020
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Section 1
Introduction

Introduction

1.1 This Arboricultural Assessment has been prepared by The Environmental Dimension Partnership Ltd (EDP) on behalf of Stanmore Consortium (hereafter referred to as the 'Client'). It provides a summary of the potential constraints and opportunities with respect to land at Stanmore Village, Bridgnorth (hereafter referred to as 'the site'). This has been informed by a desk-based assessment and walk over surveys of the site, to inform representations for the site through the Local Plan.

1.2 EDP is an independent environmental planning consultancy with offices in Cirencester, Cardiff, Cheltenham and Shrewsbury. The practice provides advice to private and public-sector clients throughout the UK in the fields of landscape, ecology, archaeology, cultural heritage, arboriculture, rights of way and masterplanning. Details of the practice can be obtained at our website www.edp-uk.co.uk.

Site Context

1.3 The site is centred approximately at Ordnance Survey Grid Reference (OSGR) SO 739 928 and is located to the east of Bridgnorth as depicted by the red outline on **Plan EDP 1**. The western parcel comprises predominantly arable farmland with a woodland belt (Hermitage Hill Coppice) running north to south adjacent to the western boundary. The central parcel comprises an area of scrub, scattered trees and grassland. The eastern parcel is located to the north-east of Stanmore Industrial Park and is an area of plantation woodland and an area of amenity grassland linked by hard standing.

1.4 A wider study area (hereafter referred to as the 'previous site boundary') as denoted by the blue outline on **Plan EDP 1** was the subject of the previous promotion but is included within this assessment for contextual background only. This report relates solely to the revised site area as defined on **Plan EDP 1**.

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Section 2
Methodology and Limitations

2.1 A BS 5837:2012 *Trees in Relation to Design, Demolition and Construction* compliant walkover survey was undertaken on 04 and 08 July 2019 by EDP. The survey sought to identify all viably retainable trees within the site based upon established guidance and best practice.

2.2 An additional site visit was undertaken on 24 August 2020 to further inform access options through the adjacent Ancient Woodland and the principles for its future management which are provided in **Section 8** of this report

2.3 The survey was undertaken using a GPS enabled tablet PC which provides accuracy to within 0.5m. To assist in both the survey and future depiction of the tree population the survey base mapping comprised a composite of Ordinance Survey data, topographic survey and high-resolution aerial imagery.

2.4 All surveyed items are as noted on **Plan EDP 1** and are detailed in the Tree Survey Schedule (**Appendix EDP 1**), and the required Root Protection Area (RPA) for each tree is described in the Tree Constraints Schedule (**Appendix EDP 2**) and is also depicted on **Plan EDP 1**.

2.5 The survey sought to identify all principal arboricultural features of high (Category 'A'), moderate (Category 'B') and low (Category 'C') quality and value, along with any items considered unsuitable for retention (Category 'U') as defined by BS 5837:2012. All recorded items were allocated a unique reference number with individual trees being given the prefix 'T', groups the prefix 'G', hedgerows the prefix 'H' and woodlands the prefix 'W'.

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Section 3
Planning Policy and Statutory Protection

National Planning Policy Framework

3.1 The National Planning Policy Framework (NPPF) assumes protection of all irreplaceable habitats unless there are exceptional reasons for not doing so. The importance of ancient woodlands as an irreplaceable habitat is set out in paragraph 175c of the NPPF, which states:

"Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists."

3.2 Review of the MAGIC website confirms that Hermitage Hill Coppice (W38) is designated as Ancient and Semi-Natural Woodland (ASNW). The extent of the designation is illustrated on Plan EDP 1.

Tree Preservation Orders and Conservation Areas

3.3 Correspondence with Shropshire Council confirms that there are no Tree Preservation Orders (TPO) registered against the site and that no part lies within a designated Conservation Area.

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Section 4
Overview of Tree Stock

Overview

4.1 Approximately three quarters of the site comprises agricultural land with the remaining quarter on land adjacent Stanmore Industrial Estate comprising scrub, rough grassland and plantation woodland. The agricultural fields are mainly delineated by hedgerows with occasional trees and groups also located along the field boundaries. Whilst the western boundary is bordered by woodland.

4.2 The previous site boundary recorded a total of 66 individual trees, 30 groups of trees, 36 hedgerows and three woodlands, whilst the site the subject of this assessment contains 37 individual trees, 18 groups of trees, 26 hedgerows and one woodland. Of these 82 items, three have been classified as Category 'A' of high quality and value, 42 as Category 'B' of moderate quality and value and 37 as Category 'C' of low quality and value.

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Section 5
Site Constraints

Site Constraints

5.1 All trees provide landscape, environmental and/or amenity value to their surroundings, but the retention and protection of both category A and B items should be prioritised due to their condition, age and retention span.

5.2 All off-site items indicated on **Plan EDP 1** remain outside of the direct control of the scheme, however, their above- and below-ground constraints will need to be considered during the design process where applicable.

5.3 The required RPA for each item is as described in **Schedule EDP 2** (**Appendix EDP 2**) and is depicted on **Plan EDP 1**. Any future plans for development should take account of the constraints posed by these RPAs, which will be enforced through the installation of protective barriers in accordance with the recommendations given in Section 6.2 of BS 5837:2012.

5.4 One woodland (W38) known as Hermitage Hill Coppice adjacent the western boundary of the site is listed as Ancient and Semi Natural Woodland (ASNW).

5.5 Ancient woodland is defined as an area which has been wooded continuously since at least 1600 AD and includes ancient semi-natural woodland. 'Wooded continuously' doesn't mean there has been a continuous tree cover across the whole site. Not all trees in the woodland must be old.

5.6 In respect of ancient woodland, the standing advice from Natural England and the Forestry Commission[1] recommends that an appropriate buffer zone of semi-natural habitat is implemented between the development and the ancient woodland (depending on the size of the development, a minimum buffer should be at least 15 metres), therefore a 15m buffer from the woodland edge is reflected on **Plan EDP 1** and is depicted on the Concept Masterplan enclosed as **Appendix EDP 3**.

5.7 One Sweet Chestnut tree (T54) has been identified within the site as a veteran tree and identified with a star on **Plan EDP 1**. A veteran tree is a tree that, by recognised criteria, shows features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species[2].

5.8 In respect of veteran trees, the standing advice from Natural England and the Forestry Commission[3] recommends the buffer should be at least 15 times larger than the diameter of the tree. The buffer zone should be delineated 5m from the edge of the tree's

[1] https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences#history
[2] BS 5837 Trees in Relation to design, demolition and construction 2012
[3] https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences#history

canopy if that area is larger than 15 times the tree's diameter. Therefore, a 15m buffer from the tree stem is reflected on **Plan EDP 1**.

5.9 A buffer zone's purpose is to protect ancient woodland and individual ancient or veteran trees. In the context of these proposals the buffer shall provide physical separation from the proposed development, shall contribute to the wider ecological networks, be part of the green infrastructure and include a mixture of planted local and appropriate native species.

Section 6
Description of Development

Description of Development

6.1 The proposals seek to deliver a sustainable mixed-use development including local centre, of relevance to this assessment the proposals shall include:

- Up to 850 new homes of all types and tenures;
- Up to 16 ha of new employment land;
- Extensive new public open space, including a central linear parkland;
- Green infrastructure corridors of ecologically rich native planting with extensive tree coverage and incorporating sustainable drainage systems;
- Pedestrian linkage to Bridgnorth via boardwalk through woodland; and
- Protection, enhancement and management of Hermitage Hill Coppice.

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Section 7
Assessment of Development Proposals

7.1 The proposals seek to retain all Category A and B trees, provide buffering to the adjacent Ancient Woodland and Veteran tree as well as make provision for extensive tree planting and creation and enhancement of green infrastructure corridors.

7.2 The existing Public Rights of Way (PRoW) both across the site and through the Ancient Woodland shall be retained, these are detailed by a blue dashed line within the Concept Masterplan (**Appendix EDP 3**). The two PRoW through the Ancient Woodland shall be sensitively upgraded and delineated with signage to promote informal recreational use whilst deterring unrestricted access and potential resultant damage to the sensitive woodland habitat.

7.3 It is proposed that a new boardwalk pedestrian linkage to Bridgnorth is provided through the Ancient Woodland utilising the existing 30m wide gap beneath overhead electricity cables. The route of this linkage is depicted by a red dashed line within the Concept Masterplan (**Appendix EDP 3**).

7.4 Whilst any future planning application would require a full arboricultural impact assessment to be undertaken a preliminary assessment has determined that 90% of existing surveyed trees shall be retained and the proposals will deliver upward of 28ha of green infrastructure across the site.

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Section 8
Management of Hermitage Hill Coppice

Management

8.1 As previously described the woodland lies adjacent the western boundary of the site, it is registered ASNW and covers an area of approximately 7.8ha in size. The woodland comprises predominately native species including ash, beech, oak, silver birch, wild cherry, rowan and Scots pine as well as non-native sweet chestnut and sycamore.

8.2 Assessment of the woodland has identified two quite distinct compartments within, as defined by both species diversity and structure. Compartment one lies to the south of the PRoW which bisects the adjacent farmland from the A454 and extends south to the A458. Whilst compartment two extends north from the PRoW to the top of the Hermitage Ridge and Wolverhampton Road.

8.3 Compartment one is characterised by self-set ash and sycamore with small stands of planted oak and sweet chestnut at 15m spacings as well as occasional Scots pine. The trees within this compartment are mostly even aged and based on local records are approximately 80 to 100yrs old as this compartment was clear felled after the end of the 1st World War. Approximately 80m south of the public wight of way a 30m wide section has been clear felled beneath the overhead power cables and this clearance is maintained on a cyclical basis by the utility company.

8.3 Compartment two lies to the north of the PRoW, contains a more diverse range of mature tree species including beech, oak and sweet chestnut as well as self-sown ash and sycamore. This area is characterised by a more open feel, with a developed canopy structure and diverse ground flora, A number of both formal (PRoW) and informal footpaths are present throughout the compartment, the PRoW routes are as depicted on the concept masterplan.

8.4 Whilst the woodland is currently the subject of periodic management as part of the wider Apley Estate management plan, there are insufficient resources available to support its dedicated management as an Ancient Woodland.

8.5 It is proposed that through the 'unlocking' of the adjacent site for development resources would be available for the drafting and delivery of a dedicated woodland management plan (WMP) for Hermitage Hill Coppice. The WMP would be based on the Forestry Commission Woodland Management Plan template[4] to ensure that the proposals for the woodland are in accordance with the principles of the UK Forestry Standard where possible[5].

[4] https://www.forestry.gov.uk/forestry/infd-9bmjwe
[5] https://www.forestry.gov.uk/ukfs

8.6 The WMP would describe a scheme of woodland restoration, enhancement and subsequent management necessary to ensure that the woodland is safeguarded for future generations as a valued natural capital asset in the local community.

Vision

8.7 The aim of the WMP is that Hermitage Hill Coppice is safeguarded, restored and managed in an appropriate manner which ensures the woodland thrives in perpetuity, developing into a vibrant woodland, rich in wildlife and delivering societal benefits to the local community.

8.8 Through sustainable management, Hermitage Hill Coppice will increase in structural diversity, reducing risks from wind blow events or disease attack and providing continuity of woodland cover. The management operations will increase the proportion and diversity of native trees and shrubs, while providing edge habitat for the benefit of native ground flora, invertebrates and birds.

Objectives

8.9 To achieve the overall vision, the woodland objectives are provided in **Table EDP 8.1**.

Table EDP 8.1: Woodland Objectives

Reference No	Feature	Objective
O1.1	Governance	The WMP shall be overseen and delivered by the Apley Estate.
O1.2	Public Engagement	The public understands and values the multi-functional benefits of the woodland and the work of the WMP.
O1.3	Ecological Assets	A full understanding of the existing value of ecological assets is known. Measures are undertaken to increase ecological value and awareness, particularly for roosting bats, breeding birds, woodland flowers, ASNW designation.
O1.4	Landscape and Visual Amenity Assets	Measures are undertaken to safeguard, enhance and promote awareness of the woodland's key contribution to the wider landscape fabric.
O1.5	Arboricultural Assets	Management promotes the safeguarding of existing trees.
O1.6	Public Access	Sensitively upgrade existing PRoW, provide clear signage and create new boardwalk access.
O1.7	Non-native Invasive Plants	Monitor presence of invasive species alongside normal management works and implement management programme as appropriate.
O1.8	Pests and Diseases	Monitor presence of pests and diseases (including ash dieback, deer and grey squirrel)
O1.9	Woodland Structure	A diverse woodland structure (age and form) is present throughout.

Management Strategy

8.10 To meet the WMP vision, management objectives, and avoid/reduce effects of identified threats, a detailed range of management strategies (prescriptions) are required. These will be developed as part of the detailed WMP and drawn up by the Apley Estate. A summary of this management strategy setting out the framework for these operations is provided below.

8.11 The specific management prescriptions to achieve the objectives and in turn contribute to the vision for ASNW, are detailed in **Table EDP 8.2**.

8.12 It is proposed that the WMP shall extend for an initial period of 10 years and shall incorporate a review at year 5 post implementation. The precise dates for the WMP 10-year period, and when the management prescriptions in **Table EDP 8.2** will occur, depend upon planning permission being granted and the implementation of adjacent developments.

Table EDP 8.2: Management Strategy (Compartments 1 and 2)

Reference No	Feature	Management Intention (Prescription), Timings and Frequency
O1.1	Governance	In Year 1, form a Governance organisation/partnership to oversee delivery of the WMP
O1.2	Public Engagement	In Year 1, design a program of public engagement to communicate the work of the WMP and the woodland's value to the community. Erect signage from Year 1 to explain all significant management works.
O1.3	Ecological Assets	In Year 1, undertake targeted ecological surveys for protected/Priority Species (principally roosting bats and invertebrates; May-Aug inclusive) to inform the delivery of the WMP. Then from Year 2 implement measures through the WMP to increase value of and understanding/interpretation of all ecological assets to Year 10. Monitor the implementation of a minimum 15m buffer from the woodland edge as development comes forward, helping to ensure that new habitats are created and promoting the importance of this buffer. Seek opportunities to include this buffer in the Woodland Management Plan, where possible.
O1.4	Landscape and Visual Amenity Assets	From Year 2, implement measures through the WMP to increase understanding/interpretation of the value of the woodland as a key component in the wider landscape fabric to Year 10.
O1.5	Arboricultural Assets	From Year 2, implement specific measures through the WMP to secure and effectively manage the tree stock. Ensure the detailed Works Programme addresses this and will increase understanding/interpretation of the value of the tree stock to Year 10.
O1.6	Public Access	From Year 2, Undertake path improvements such works to be prioritised within 18 months of woodland areas entering formal management under the WMP. Boardwalk structure to be constructed in line with development phasing.

Reference No	Feature	Management Intention (Prescription), Timings and Frequency
O1.7	Non-native Invasive Plants	In Year 2, commence and continue control of invasive plants to an acceptable level of minimal presence or absence by Year 5 and beyond. Monitor presence of other invasive species alongside normal management works and implement management programme as appropriate.
O1.8	Pests and Diseases	From Year 2, commence and continue to monitor presence of pests and diseases (including **ash dieback**, **deer** and **grey squirrel**) quarterly. Control/take remedial action to reduce effects by Year 5 and beyond; control intensity, may reduce if success is achieved in first few years. Control for **ash dieback** may include pre-emptive felling and re-stocking with native broadleaves (by planting /propagation of and/or/selective thinning in favour of). **Grey squirrel** impacts to be monitored and squirrel control to be implemented and carefully explained with public engagement, if required.
O1.9	Woodland Structure	From Year 2, commence and continue **thinning and re-stocking** with native broadleaves (by planting/propagation of and/or/selective thinning in favour of) to create a diverse age structure in the canopy and understorey layer by Year 10. Improve boundary hedgerows.

Formal Review Mechanism for the WMP at Year 5 and Year 10

8.13 The Governance organisation will formally review the WMP at Year 5 and Year 10, publish findings and recommendations, and amend the WMP as necessary to ensure the overall vision is achieved/maintained. To inform the review, the woodland surveys and a selection of ecological surveys will be repeated at Year 4 and Year 9 by suitably experienced surveyors.

Section 9
Summary and Conclusions

Summary and Conclusions

9.1 The proposals seek to deliver a sustainable mixed-use development with significant public open spaces and green infrastructure. This assessment informed by a BS 5837:2012 compliant tree survey has considered the potential impacts of the proposals on the arboricultural resource including the adjacent Ancient Woodland and has identified no 'in principle' constraints that would prohibit development of the site.

9.2 It is acknowledged that the proposed boardwalk connection will require low impact development within the Ancient Woodland designation, however the site of such shall be limited to the current clearing beneath the overhead cables and all work shall be undertaken outside the designated root protection areas of the adjacent trees.

9.3 The future development shall be supported by extensive engineering details relating to the proposed access and a detailed Woodland Management Plan shall be secured and delivered accordingly.

9.4 The reduced scale of the site the subject of this assessment has lessened impact on existing habitats and can be delivered within minimal loss of trees and any losses will be more than offset through implementation of the wider landscape and green infrastructure strategy.

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Appendix EDP 1
Site - Tree Survey Key and Schedule

Sequential Reference Number	T - Individual specimen; G - Group, Trees that form cohesive arboricultural features either aerodynamically, visually or culturally; H - Linear group of specimens that form a hedge or boundary; and W - A larger group or area of trees that should be regarded as a single woodland unit.
Species	Common English names are used wherever possible for simplicity.
Height	An approximation of height (in metres) is provided for the highest point of the tree.
Stem Diameter	This is the measurement of stem diameter in millimetres taken in accordance with Annex C of BS 5837:2012.
Branch Spread	This is taken at four cardinal points, with a stated value in metres to enable an accurate representation of the crown, as shown on **Plan EDP 1**.
Existing Height Above Ground Level	An approximation of height (in metres) of crown clearance above adjacent ground level.
Life Stage	There are six classes to which trees are assigned: • Young; • Semi mature; • Early mature; • Mature; • Over mature; and • Veteran.
Physiological Condition	An indication of the trees physiological condition is represented and classed as good, fair, poor or dead, this is informed by the following: Canopy Density: It should be taken that, unless otherwise stated with each individual entry, the canopy density of the trees is typical of the species; and Leaf Size and Colouration: It should be taken that, unless otherwise stated with each individual entry, leaf size and colouration is typical of the species.
Structural Condition	Additional notes are provided giving details of the tree's structural condition. This is informed by "*the presence of any decay and physical defect*[6]".

[6] BS 5837:2012 Section 4.4.2.5

Preliminary Management Recommendations	These are made on the basis of optimising the life expectancy of Site trees, given their current situation and that which may result from the development proposals. The survey process pays particular attention to implications for life and/or property; defects recorded under the structural condition have the necessary mitigation measures proposed within this section of the schedule**.**
Estimated Remaining Contribution	The definitions of the terms used are as follows and describe the estimated length of time (in years) over which the tree can be expected to make a safe contribution to local amenity: • Less than 10; • 10+; • 20+; and • 40+.
Category Grading	Trees have been assigned Category 'U' or Category Grading 'A' to 'C' in accordance with the Cascade Chart given in BS 5837:2012.
Tree Works Priority Codes	Priority codes from 1 to 3 have been given for trees requiring work. The definition of the codes used is as follows: Priority 1: Work that should be undertaken urgently due to the identification of a potential hazard; Priority 2: Work that should be undertaken prior to any works commencing on site; and Priority 3: Work that should be undertaken following the completion of the development.

Client:	Stanmore Consortium	**Site:**	
Date of Survey:	4th & 8th July 2019	**Consultant**	
Tagged	N/A	**Weather**	

Sequential Reference No.	Species	Height (m)	Stem Diameter (mm)	Branch Spread (m)				Canopy Clearance (m)	Life Stage	Physiologic Condition
				North	East	South	West			
G1	Elder (Sambucus nigra) English Oak (Quercus robur) Hawthorn (Crataegus monogyna) Hybrid Black Poplar (Populus x canadensis)	14	# 160	3.5	3.5	3.5	3.5	1	Semi Mature	Fair
T2	Goat willow (Salix caprea)	15	# 400 450 480	8	8	8	8	4	Mature	Fair
T3	Goat willow (Salix caprea)	10	# 600	4	4	4	4	4	Mature	Fair
G4	Common Alder (Alnus glutinosa) Common Ash (Fraxinus excelsior) Field Maple (Acer campestre) Hawthorn (Crataegus monogyna) Hazel (Corylus avellana)	8	# 350	5	5	5	5	1	Semi Mature	Fair
G5	Field Maple (Acer campestre) Hawthorn (Crataegus monogyna) Rowan (Sorbus aucuparia)	8	# 6x80	2.5	2.5	2.5	2.5	1	Semi Mature	Fair

Sequential Reference No.	Species	Height (m)	Stem Diameter (mm)	Branch Spread (m)				Canopy Clearance (m)	Life Stage	Physiologic Condition
				North	East	South	West			
G12	Wild Cherry (Prunus avium)	10	# 380	5	5	5	5	2	Early Mature	Good
T13	English Oak (Quercus robur)	17	# 1200	11	11	11	11	4	Mature	Good
T14	Goat willow (Salix caprea)	12	# 500 500	8	8	8	8	1	Mature	Fair
T15	English Oak (Quercus robur)	18	# 1500	10	10	10	10	4	Mature	Fair
G16	English Oak (Quercus robur)	19	# 1100	10	10	10	10	3	Mature	Good
H17	Common Ash (Fraxinus excelsior) Field Maple (Acer campestre) Hawthorn (Crataegus	1.8	# 6x60	1.5	1.5	1.5	1.5	0	Early Mature	Fair

Sequential Reference No.	Species	Height (m)	Stem Diameter (mm)	Branch Spread (m)				Canopy Clearance (m)	Life Stage	Physiologic Conditior
				North	East	South	West			
T21	English Oak (Quercus robur)	8	# 400	6	6	6	6	2	Early Mature	Fair
T22	English Oak (Quercus robur)	18	# 1000	10	10	10	10	2	Mature	Good
H23	Blackthorn (Prunus spinosa) English Oak (Quercus robur) Hawthorn (Crataegus monogyna) Hazel (Corylus avellana)	2.5	# 6x60	2	2	2	2	0	Early Mature	Fair
G24	English Oak (Quercus robur)	18	# 800	9	9	9	9	3	Mature	Good
	Common Ash (Fraxinus excelsior) English Oak (Quercus robur) Hawthorn (Crataegus monogyna) Sycamore (Acer									

Sequential Reference No.	Species	Height (m)	Stem Diameter (mm)	Branch Spread (m)				Canopy Clearance (m)	Life Stage	Physiologic Condition
				North	East	South	West			
G27	Common Ash (Fraxinus excelsior) English Oak (Quercus robur) Sycamore (Acer pseudoplatanus) Black Walnut (Juglans nigra) Weeping Willow (Salix x sepulcralis 'Chrysocoma')	16	# 600	8	8	8	8	2	Mature	Fair
H28	Blackthorn (Prunus spinosa) Hawthorn (Crataegus monogyna) Silver Birch (Betula pendula) Sycamore (Acer pseudoplatanus) Hazel (Corylus avellana)	4	# 6x80	4	4	4	4	0	Semi Mature	Fair
T29	English Oak (Quercus robur)	22	# 1100	10	10	10	10	3	Mature	Good
W30	Common Ash (Fraxinus excelsior) Horse Chestnut (Aesculus hippocastanum) Silver Birch (Betula pendula) Sycamore (Acer pseudoplatanus)	18	# 400	5	5	5	5	1	Semi Mature	Fair

Sequential Reference No.	Species	Height (m)	Stem Diameter (mm)	Branch Spread (m)				Canopy Clearance (m)	Life Stage	Physiologic Condition
				North	East	South	West			
H36	Hawthorn (Crataegus monogyna)	1.8	# 6x60	2	2	2	2	0	Early Mature	Fair
G37	Common Ash (Fraxinus excelsior) Sycamore (Acer pseudoplatanus) Wych Elm (Ulmus glabra)	6	# 150	3	3	3	3	1	Semi Mature	Fair
W38	Common Ash (Fraxinus excelsior) English Oak (Quercus robur) Silver Birch (Betula pendula) Sycamore (Acer pseudoplatanus) Wild Cherry (Prunus avium) Rowan (Sorbus aucuparia) Sycamore (Acer pseudoplatanus) Scots Pine (Pinus sylvestris)	18	# 600	5	5	5	5	1	Semi Mature	Fair
H39	Elder (Sambucus nigra) Hawthorn (Crataegus monogyna) Sycamore (Acer pseudoplatanus) Wych Elm (Ulmus glabra)	1.8	# 6x60	2	2	2	2	0	Early Mature	Fair
	Elder (Sambucus nigra)									

Sequential Reference No.	Species	Height (m)	Stem Diameter (mm)	Branch Spread (m)				Canopy Clearance (m)	Life Stage	Physiologic Condition
				North	East	South	West			
H44	Elder (Sambucus nigra) Hawthorn (Crataegus monogyna) Sycamore (Acer pseudoplatanus) Wych Elm (Ulmus glabra)	1.8	# 6x60	2	2	2	2	0	Early Mature	Fair
H45	Elder (Sambucus nigra) Hawthorn (Crataegus monogyna) Sycamore (Acer pseudoplatanus) Wych Elm (Ulmus glabra)	1.8	# 6x60	2	2	2	2	0	Early Mature	Fair
G46	Crack Willow (Salix fragilis)	18	# 6x120	6	6	6	6	2	Mature	Fair
T47	Wild Cherry (Prunus avium)	10	# 350	5	5	5	5	2	Mature	Fair
H48	Elder (Sambucus nigra) Hawthorn (Crataegus monogyna) Sycamore (Acer pseudoplatanus) Wych Elm (Ulmus glabra)	1.8	# 6x60	2	2	2	2	0	Early Mature	Fair
H49	Elder (Sambucus nigra) Hawthorn (Crataegus monogyna) Sycamore (Acer	1.8	# 6x60	2	2	2	2	0	Early Mature	Fair

Sequential Reference No.	Species	Height (m)	Stem Diameter (mm)	Branch Spread (m)				Canopy Clearance (m)	Life Stage	Physiologic Condition
				North	East	South	West			
T54	Sweet Chestnut (Castanea sativa)	16	# 3000	9	9	9	9	2	Veteran (Veteran)	Fair
H55	Elder (Sambucus nigra) Hawthorn (Crataegus monogyna) Sycamore (Acer pseudoplatanus) Wych Elm (Ulmus glabra)	1.8	# 6x60	2	2	2	2	0	Early Mature	Fair
H56	Elder (Sambucus nigra) Hawthorn (Crataegus monogyna) Sycamore (Acer pseudoplatanus) Wych Elm (Ulmus glabra)	1.8	# 6x60	2	2	2	2	0	Early Mature	Fair
H57	Elder (Sambucus nigra) Hawthorn (Crataegus monogyna) Sycamore (Acer pseudoplatanus) Wych Elm (Ulmus glabra)	1.8	# 6x60	2	2	2	2	0	Early Mature	Fair
G58	Common Ash (Fraxinus excelsior) Sycamore (Acer pseudoplatanus)	6	# 100	3	3	3	3	1	Semi Mature	Fair
	Common Ash (Fraxinus excelsior)									

Sequential Reference No.	Species	Height (m)	Stem Diameter (mm)	Branch Spread (m)				Canopy Clearance (m)	Life Stage	Physiologic Condition
				North	East	South	West			
H63	Hawthorn (Crataegus monogyna) Sycamore (Acer pseudoplatanus) Wych Elm (Ulmus glabra) Sycamore (Acer pseudoplatanus)	1.8	# 6x60	2	2	2	2	0	Early Mature	Fair
T64	English Oak (Quercus robur)	8	# 400	6	6	6	6	2	Semi Mature	Good
T65	English Oak (Quercus robur)	8	# 400	6	6	6	6	2	Semi Mature	Good
H66	Hawthorn (Crataegus monogyna) Sycamore (Acer pseudoplatanus) Wych Elm (Ulmus glabra) Sycamore (Acer pseudoplatanus)	1.8	# 6x60	2	2	2	2	0	Early Mature	Fair
T67	Sweet Chestnut (Castanea	10	# 1000	6	6	6	6	2	Mature	Fair

Sequential Reference No.	Species	Height (m)	Stem Diameter (mm)	Branch Spread (m)				Canopy Clearance (m)	Life Stage	Physiologic Condition
				North	East	South	West			
G72	Common Ash (Fraxinus excelsior) Hawthorn (Crataegus monogyna) Wild Cherry (Prunus avium)	6	# 250	3	3	3	3	1	Semi Mature	Fair
G73	Sycamore (Acer pseudoplatanus)	15	# 500	8	8	8	8	2	Mature	Fair
G74	Elder (Sambucus nigra) Hawthorn (Crataegus monogyna) Apple (Malus domestica)	5	# 6x80	4	4	4	4	0	Early Mature	Fair
T75	Sycamore (Acer pseudoplatanus)	19	# 1100	10	10	10	10	3	Mature	Good
T76	Common Ash (Fraxinus excelsior)	6	# 8x100	4	4	4	4	1	Semi Mature	Fair

Sequential Reference No.	Species	Height (m)	Stem Diameter (mm)	Branch Spread (m)				Canopy Clearance (m)	Life Stage	Physiologic Condition
				North	East	South	West			
T84	English Oak (Quercus robur)	6	# 150	5	5	5	5	2	Semi Mature	Good
T85	English Oak (Quercus robur)	6	# 150	5	5	5	5	2	Semi Mature	Good
T86	English Oak (Quercus robur)	6	# 400	5	5	5	5	2	Semi Mature	Good
H87	English Elm (Ulmus procera) Hawthorn (Crataegus monogyna)	2.5	# 6x60	2	2	2	2	0	Early Mature	Fair
T88	English Oak (Quercus robur)	8	# 500	7	7	7	7	2	Early Mature	Good
T89	English Oak (Quercus robur)	6	# 350	5	5	5	5	2	Semi Mature	Good
T90	English Oak (Quercus robur)	6	# 350	5	5	5	5	2	Semi Mature	Good
T91	English Oak (Quercus robur)	6	# 300 350	5	5	5	5	2	Semi Mature	Good
T92	English Oak (Quercus robur)	6	# 300 350	5	5	5	5	2	Semi Mature	Good
T93	English Oak (Quercus robur)	6	# 300 350	5	5	5	5	2	Semi Mature	Good

Sequential Reference No.	Species	Height (m)	Stem Diameter (mm)	Branch Spread (m)				Canopy Clearance (m)	Life Stage	Physiologic Condition
				North	East	South	West			
T100	Copper Beech (Fagus sylvatica 'purpurea')	8	# 350	6	6	6	6	2	Semi Mature	Good
T101	Copper Beech (Fagus sylvatica 'purpurea')	8	# 350	6	6	6	6	2	Semi Mature	Good
T102	Norway Maple (Acer platanoides)	8	# 350	6	6	6	6	2	Semi Mature	Good
T103	English Oak (Quercus robur)	10	# 450	8	8	8	8	2	Semi Mature	Good
T104	Beech (Fagus sylvatica)	6	# 200	4	4	4	4	1	Semi Mature	Fair
H105	Field Maple (Acer campestre) Hawthorn (Crataegus monogyna) Hazel (Corylus avellana)	2.5	# 6x60	2	2	2	2	0	Early Mature	Fair
T106	Common Ash (Fraxinus excelsior)	12	# 700 400	9	9	9	9	1	Mature	Fair
T107	English Oak (Quercus robur)	18	# 500	5	8	5	0.5	3	Early Mature	Fair
	Leyland Cypress									

Sequential Reference No.	Species	Height (m)	Stem Diameter (mm)	Branch Spread (m)				Canopy Clearance (m)	Life Stage	Physiologic Condition
				North	East	South	West			
G117	Crack Willow (Salix fragilis) Goat Willow (Salix caprea)	10	# 300	5	5	5	5	2	Early Mature	Fair
H118	Common Ash (Fraxinus excelsior) English Elm (Ulmus procera) English Oak (Quercus robur) Field Maple (Acer campestre) Hawthorn (Crataegus monogyna) Wych Elm (Ulmus glabra) Hazel (Corylus avellana) Holly (Ilex aquifolium)	2	# 6x60	2	2	2	2	0	Early Mature	Fair
T119	English Oak (Quercus robur)	6	# 350	4	4	4	4	2	Semi Mature	Fair
T120	Holly (Ilex aquifolium)	6	# 250	3	3	3	3	2	Semi Mature	Fair
T121	English Oak (Quercus robur)	6	# 250	5	5	5	5	2	Semi Mature	Fair
T122	Common Ash (Fraxinus excelsior)	6	# 250	5	5	5	5	2	Semi Mature	Fair

Sequential Reference No.	Species	Height (m)	Stem Diameter (mm)	Branch Spread (m)				Canopy Clearance (m)	Life Stage	Physiologic Condition
				North	East	South	West			
H129	English Elm (Ulmus procera) Hawthorn (Crataegus monogyna) Wych Elm (Ulmus glabra) Hazel (Corylus avellana)	2	# 6x60	2	2	2	2	0	Early Mature	Fair
T130	English Oak (Quercus robur)	10	# 450	9	9	9	9	2	Semi Mature	Good
T131	English Oak (Quercus robur)	8	# 300	6	6	6	6	2	Semi Mature	Good
G132	Common Ash (Fraxinus excelsior) English Elm (Ulmus procera) English Oak (Quercus robur) Goat Willow (Salix caprea) Hawthorn (Crataegus monogyna) Silver Birch (Betula pendula) Sycamore (Acer pseudoplatanus) Wild Cherry (Prunus avium) Hazel (Corylus avellana) Sycamore (Acer pseudoplatanus)	16	# 350	3	3	3	3	3	Semi Mature	Fair

Appendix EDP 2
Tree Constraints Schedule

Reference No.	Category Grading	No. of Stems	RPA Radius (m)	RPA Area (m^2)	Ultimate Height (m)	Ultimate Crown Spread (m)			
						N	E	S	W
G1	B1	1	1.9	11.6	18	4	4	4	4
T2	C1	3	9.2	268.2	19	10	10	10	10
T3	C1	1	7.2	162.9	13	5	5	5	5
G4	B1	1	4.2	55.4	10	6	6	6	6
G5	C1	6	2.4	17.4	10	3	3	3	3
T6	B1	2	7.2	164.0	15	10	10	10	10
G7	B1	1	4.8	72.4	24	7	7	7	7
T8	B1	2	5.2	83.7	15	7	7	7	7
T9	B1	2	3.8	46.4	15	7	7	7	7
T10	B1	1	10.8	366.4	15	6	6	6	6
T11	A1	1	15	706.9	26	12	12	12	12
G12	B1	1	4.6	65.3	13	6	6	6	6
T13	A1	1	14.4	651.4	21	13	13	13	13
T14	C1	2	8.5	226.2	15	10	10	10	10
T15	B1	1	15	706.9	23	12	12	12	12
G16	B1	1	13.2	547.4	24	12	12	12	12
H17	C1	6	1.8	9.8	2	2	2	2	2
T18	B1	1	6.0	113.1	10	8	8	8	8
T19	B1	1	3.6	40.7	10	6	6	6	6
T20	B1	1	4.8	72.4	10	7	7	7	7
T21	B1	1	4.8	72.4	10	7	7	7	7
T22	A1	1	12.0	452.4	23	12	12	12	12
H23	C1	6	1.8	9.8	3	2	2	2	2
G24	B1	1	9.6	289.5	23	11	11	11	11
G25	B1	1	9.6	289.5	23	11	11	11	11
W26	A1,2,3	1	6.0	113.1	23	7	7	7	7
G27	B1	1	7.2	162.9	20	10	10	10	10
H28	C1	6	2.4	17.4	5	5	5	5	5
T29	A1	1	13.2	547.4	28	12	12	12	12
W30	B1,2,3	1	4.8	72.4	23	6	6	6	6
H31	C1	6	1.8	9.8	2	2	2	2	2
G32	B1	1	4.2	55.4	15	6	6	6	6
H33	C1	6	1.8	9.8	2	2	2	2	2
T34	B1	1	2.2	14.7	6	4	4	4	4
T35	C1	1	4.2	55.4	9	4	4	4	4
H36	C1	6	1.8	9.8	2	2	2	2	2
G37	C1	1	1.8	10.2	8	4	4	4	4

Reference No.	Category Grading	No. of Stems	RPA Radius (m)	RPA Area (m²)	Ultimate Height (m)	Ultimate Crown Spread (m)			
						N	E	S	W
W38	B1,2,3	1	7.2	162.9	23	6	6	6	6
H39	C1	6	1.8	9.8	2	2	2	2	2
H40	C1	6	1.8	9.8	2	2	2	2	2
H41	C1	6	1.8	9.8	2	2	2	2	2
H42	C1	6	1.8	9.8	2	2	2	2	2
H43	C1	6	1.8	9.8	2	2	2	2	2
H44	C1	6	1.8	9.8	2	2	2	2	2
H45	C1	6	1.8	9.8	2	2	2	2	2
G46	C1	6	3.5	39.1	23	7	7	7	7
T47	B1	1	4.2	55.4	13	6	6	6	6
H48	C1	6	1.8	9.8	2	2	2	2	2
H49	C1	6	1.8	9.8	2	2	2	2	2
H50	C1	6	1.8	9.8	2	2	2	2	2
T51	B1	1	2.2	14.7	6	4	4	4	4
G52	B1	1	3.6	40.7	15	5	5	5	5
H53	C1	6	1.8	9.8	2	2	2	2	2
T54	A1,2,3	1	45.0	707.0	20	11	11	11	11
H55	C1	6	1.8	9.8	2	2	2	2	2
H56	C1	6	1.8	9.8	2	2	2	2	2
H57	C1	6	1.8	9.8	2	2	2	2	2
G58	C1	1	1.2	4.5	8	4	4	4	4
G59	C1	1	1.2	4.5	8	4	4	4	4
G60	B1	1	3.6	40.7	13	6	6	6	6
H61	C1	6	1.8	9.8	2	2	2	2	2
G62	B1	1	1.4	6.5	10	4	4	4	4
H63	C1	6	1.8	9.8	2	2	2	2	2
T64	B1	1	4.8	72.4	10	7	7	7	7
T65	B1	1	4.8	72.4	10	7	7	7	7
H66	C1	6	1.8	9.8	2	2	2	2	2
T67	B1	1	14.4	651.4	15	11	11	11	11
T68	B1	1	14.4	651.4	15	10	10	10	10
T69	C1	1	14.4	651.4	10	6	6	6	6
T70	B1	1	4.2	55.4	8	6	6	6	6
T71	B1	1	3.6	40.7	6	4	4	4	4
G72	C1	1	3.0	28.3	8	4	4	4	4
G73	B1	1	6.0	113.1	19	10	10	10	10
G74	C1	6	2.4	17.4	6	5	5	5	5
T75	B1	1	13.2	547.4	24	12	12	12	12
T76	C1	8	3.4	36.2	8	5	5	5	5
H77	C1	6	1.8	9.8	3	2	2	2	2
G78	B1	1	4.2	55.4	16	6	6	6	6

Reference No.	Category Grading	No. of Stems	RPA Radius (m)	RPA Area (m^2)	Ultimate Height (m)	Ultimate Crown Spread (m)			
						N	E	S	W
H79	C1	6	1.8	9.8	3	2	2	2	2
T80	B1	1	3.0	28.3	8	6	6	6	6
T81	B1	1	5.4	91.6	8	6	6	6	6
T82	B1	1	3.0	28.3	8	6	6	6	6
T83	B1	1	3.0	28.3	8	6	6	6	6
T84	B1	1	1.8	10.2	8	6	6	6	6
T85	B1	1	1.8	10.2	8	6	6	6	6
T86	B1	1	4.8	72.4	8	6	6	6	6
H87	C1	6	1.8	9.8	3	2	2	2	2
T88	B1	1	6.0	113.1	10	8	8	8	8
T89	B1	1	4.2	55.4	8	6	6	6	6
T90	B1	1	4.2	55.4	8	6	6	6	6
T91	B1	2	5.5	96.1	8	6	6	6	6
T92	B1	2	5.5	96.1	8	6	6	6	6
T93	B1	2	5.5	96.1	8	6	6	6	6
T94	B1	2	5.5	96.1	8	6	6	6	6
T95	B1	2	5.5	96.1	8	6	6	6	6
H96	C1	6	1.8	9.8	3	2	2	2	2
G97	B1	1	4.8	72.4	20	6	6	6	6
H98	C1	6	1.8	9.8	3	2	2	2	2
H99	C1	6	1.8	9.8	3	2	2	2	2
T100	B1	1	4.2	55.4	10	7	7	7	7
T101	B1	1	4.2	55.4	10	7	7	7	7
T102	B1	1	4.2	55.4	10	7	7	7	7
T103	B1	1	5.4	91.6	13	10	10	10	10
T104	B1	1	2.4	18.1	8	5	5	5	5
H105	C1	6	1.8	9.8	3	2	2	2	2
T106	C1	2	9.7	294.1	15	11	11	11	11
T107	B1	1	6.0	113.1	23	6	10	6	1
G108	B1	1	4.8	72.4	23	4	4	4	4
T109	B1	1	7.2	162.9	20	8	8	8	8
H110	C1	6	1.8	9.8	4	2	2	2	2
G111	B1	1	4.8	72.4	23	4	4	4	4
G112	C1	6	1.8	9.8	6	4	4	4	4
T113	B1	1	4.8	72.4	10	6	10	6	1
H114	C1	6	1.8	9.8	3	2	2	2	2
T115	B1	1	2.4	18.1	8	6	6	6	6
T116	B1	1	4.8	72.4	13	8	8	8	8
G117	C1	1	3.6	40.7	13	6	6	6	6
H118	C1	6	1.8	9.8	3	2	2	2	2
T119	B1	1	4.2	55.4	8	5	5	5	5

Reference No.	Category Grading	No. of Stems	RPA Radius (m)	RPA Area (m^2)	Ultimate Height (m)	Ultimate Crown Spread (m)			
						N	E	S	W
T120	C1	1	3.0	28.3	8	4	4	4	4
T121	B1	1	3.0	28.3	8	6	6	6	6
T122	B1	1	3.0	28.3	8	6	6	6	6
T123	B1	1	3.0	28.3	8	6	6	6	6
T124	B1	1	5.4	91.6	13	7	7	7	7
T125	B1	1	5.4	91.6	13	7	7	7	7
T126	A1	1	12.0	452.4	28	12	12	12	12
H127	C1	6	1.8	9.8	3	2	2	2	2
G128	B1	1	3.0	28.3	13	6	6	6	6
H129	C1	6	1.8	9.8	3	2	2	2	2
T130	A1	1	5.4	91.6	13	11	11	11	11
T131	A1	1	3.6	40.7	10	7	7	7	7
G132	B1,3	1	4.2	55.4	20	4	4	4	4
G133	B1	1	3.0	28.3	18	5	5	5	5
G134	B1	1	3.6	40.7	18	6	6	6	6
H135	C1	6	1.8	9.8	2	2	2	2	2

Appendix EDP 3
Concept Masterplan

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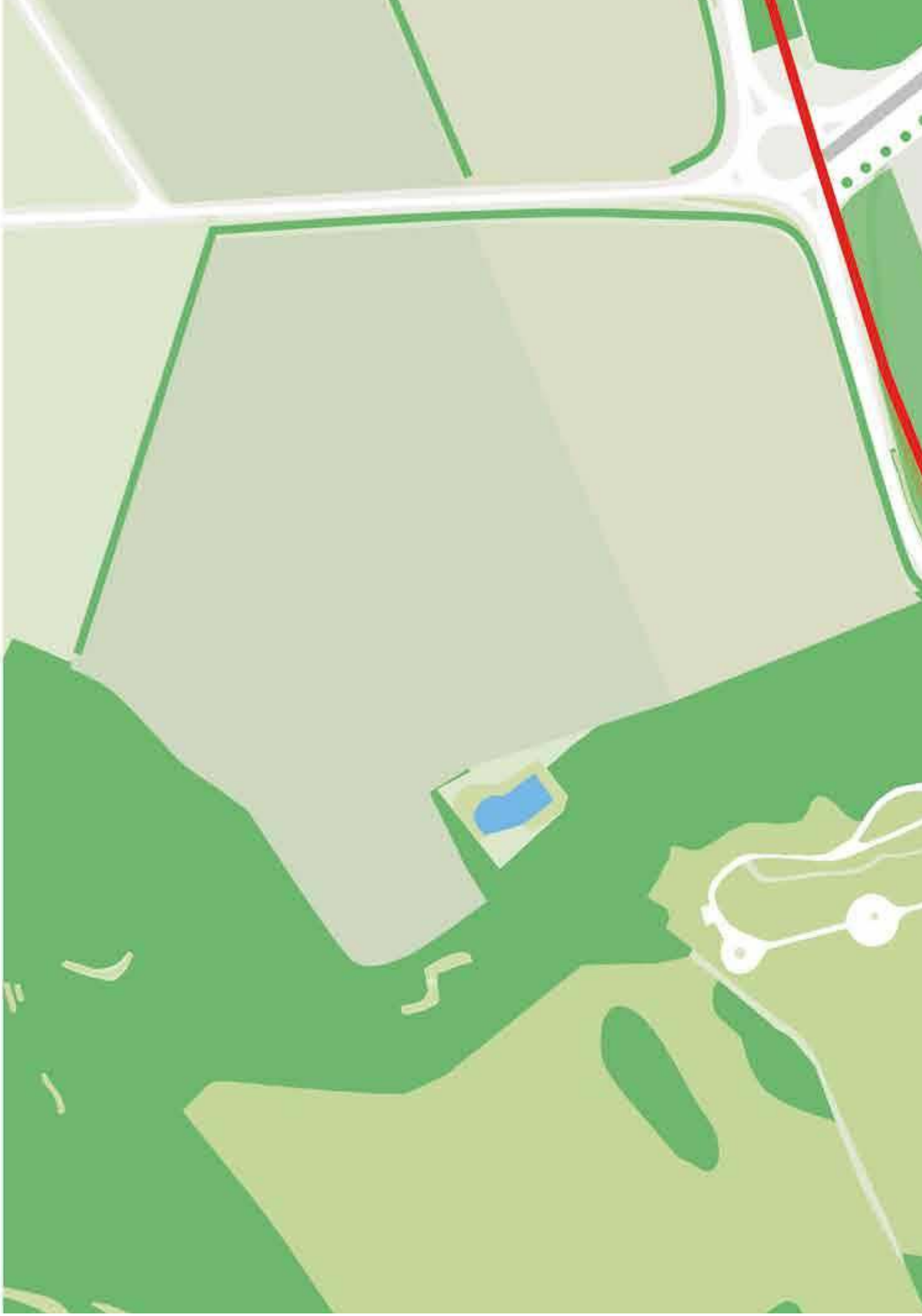

Plan

Plan EDP 1 Tree Constraints Plan
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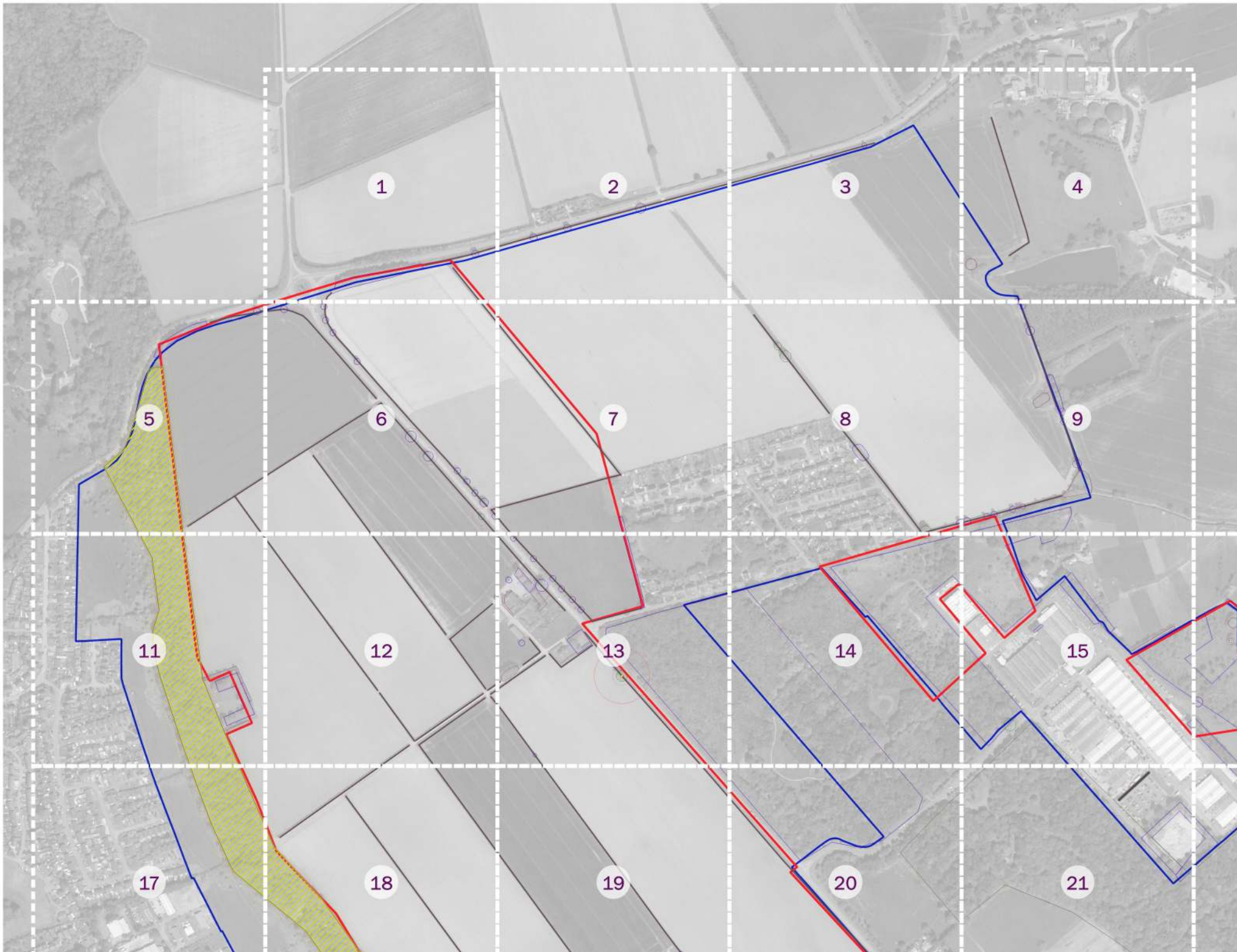
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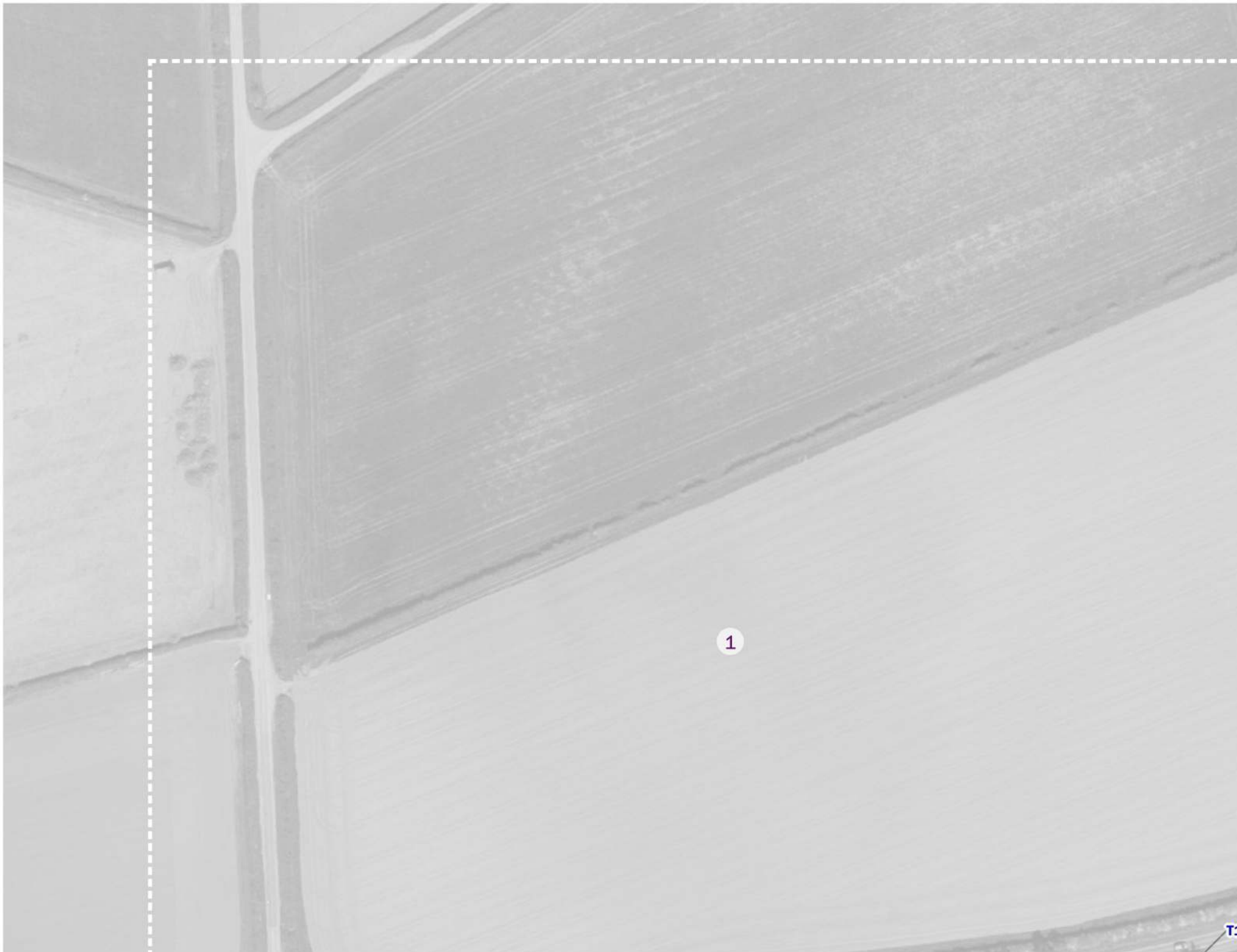
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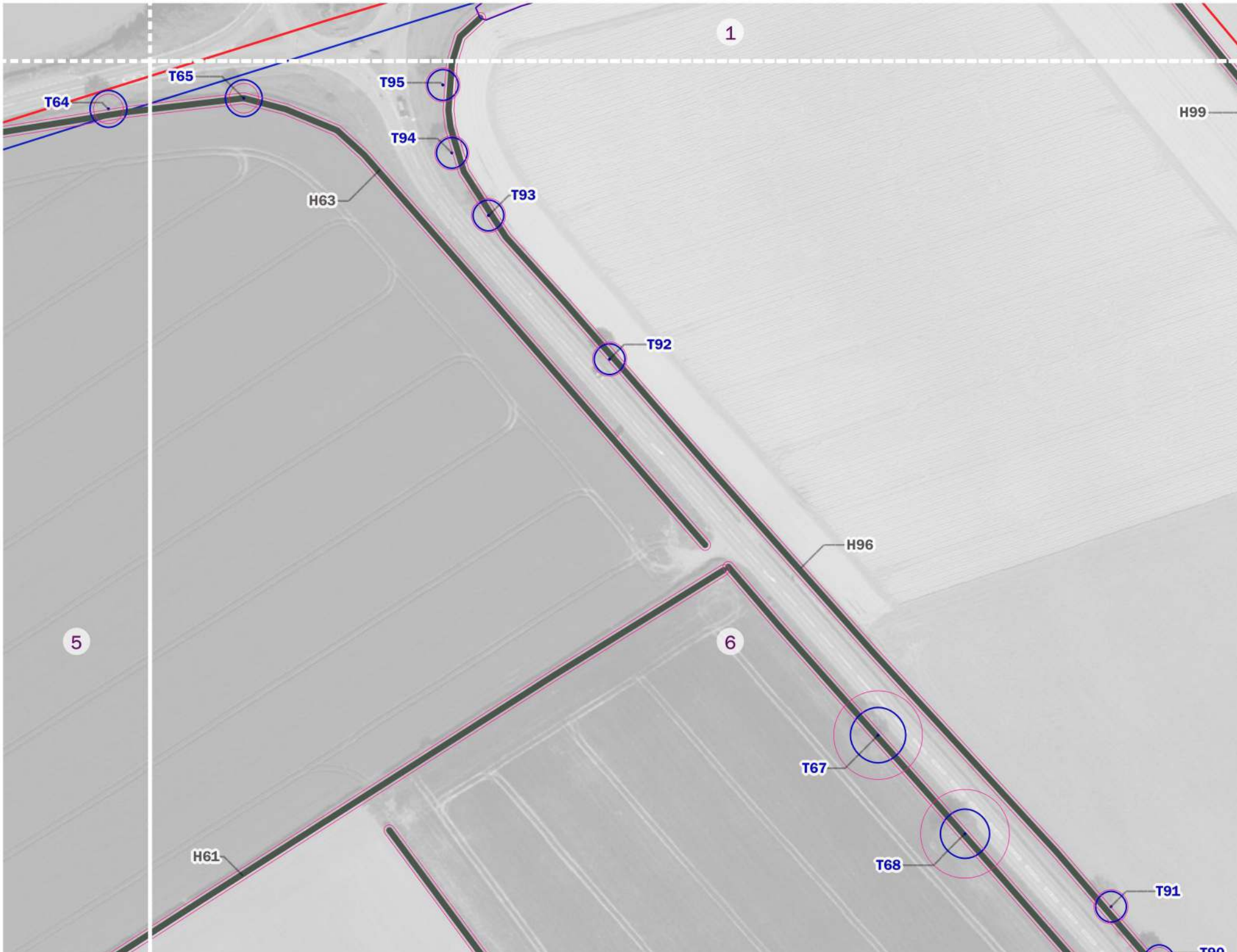
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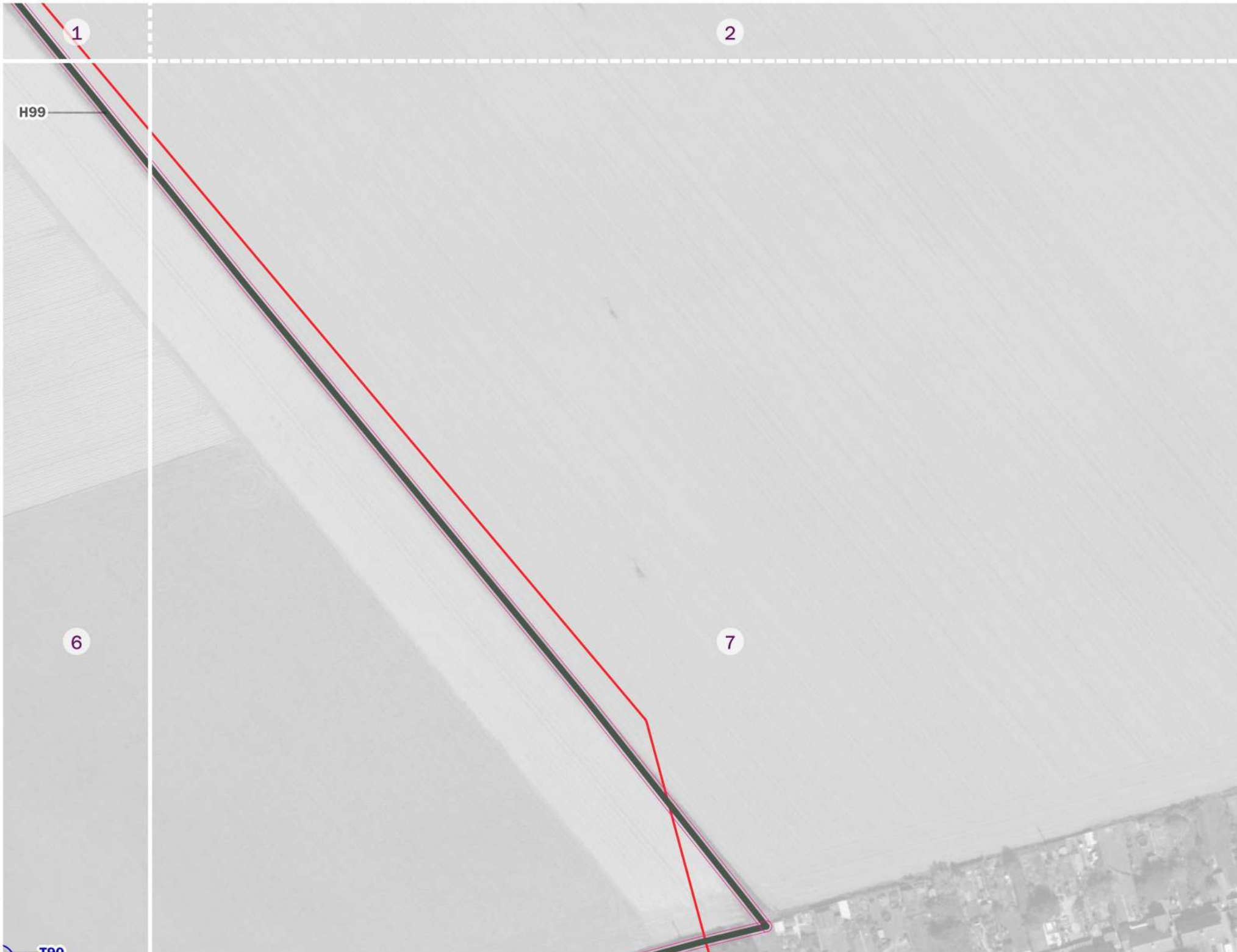
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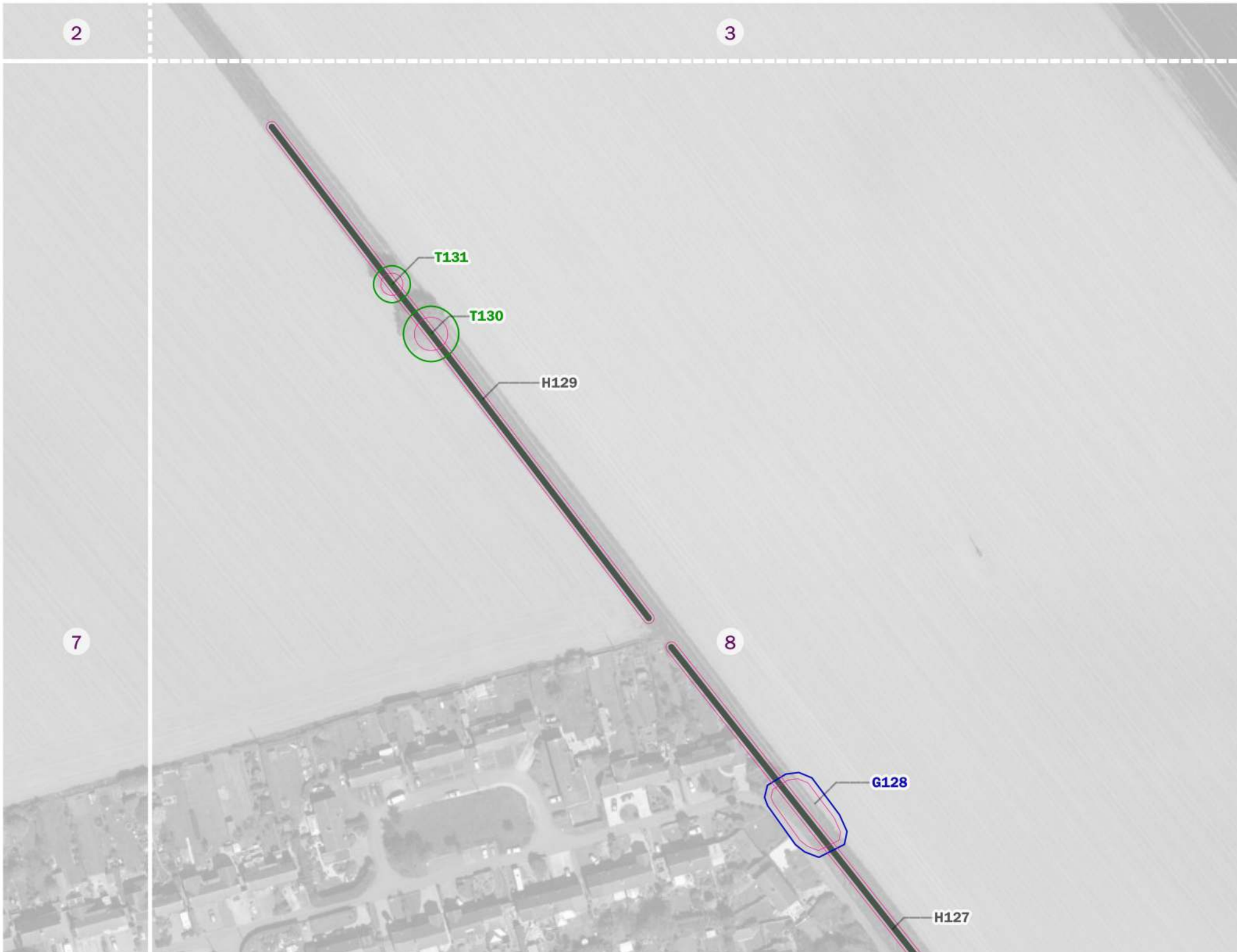
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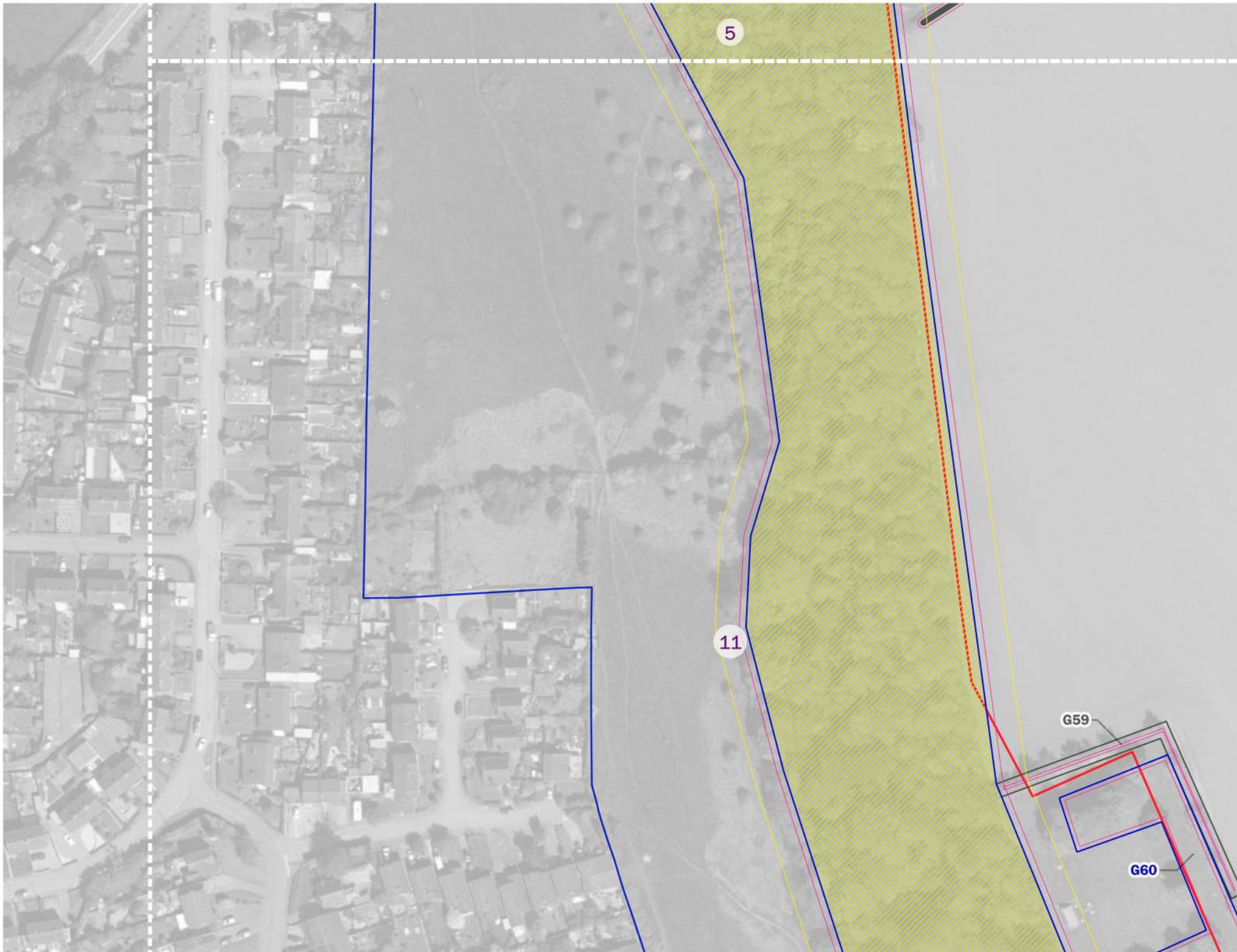
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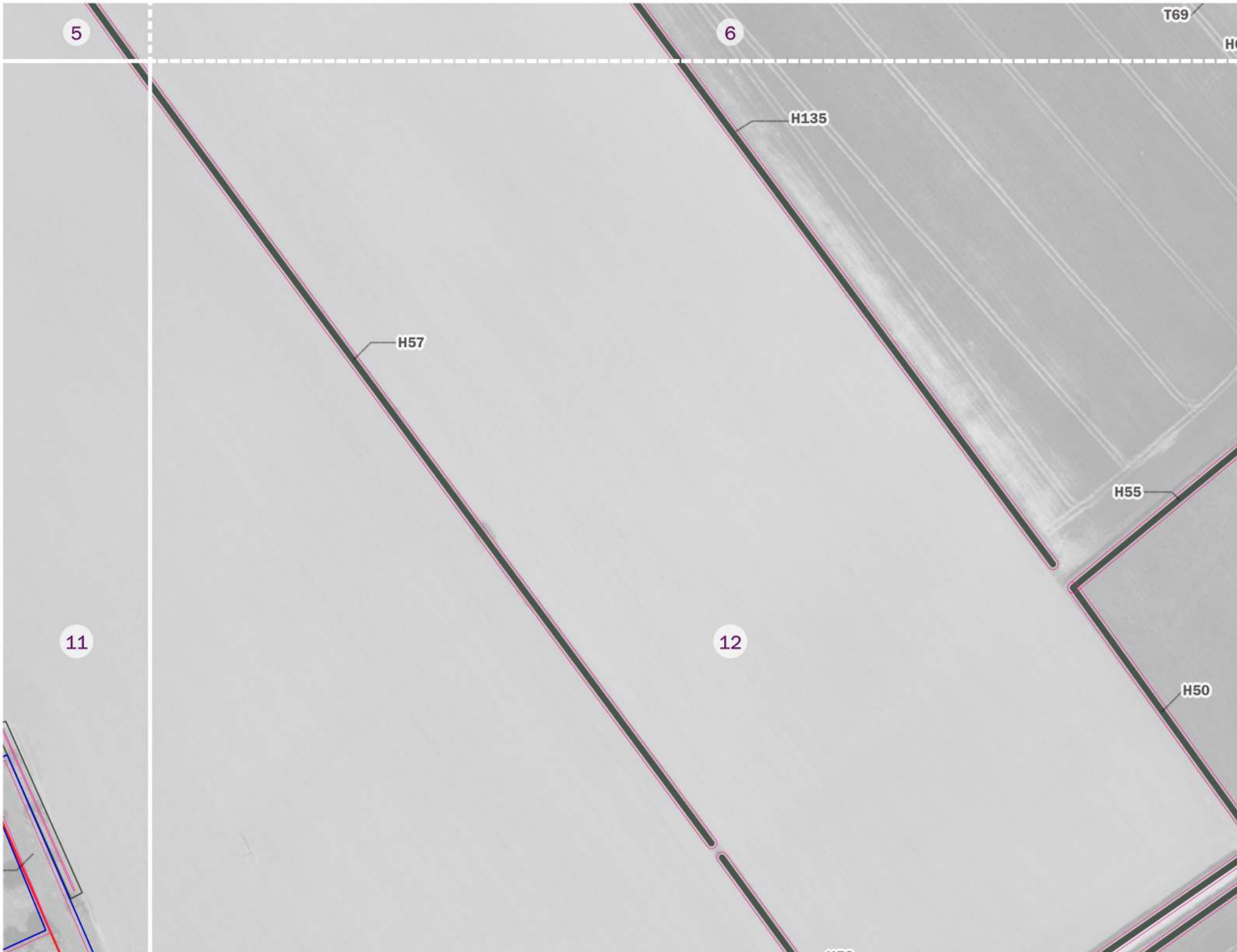
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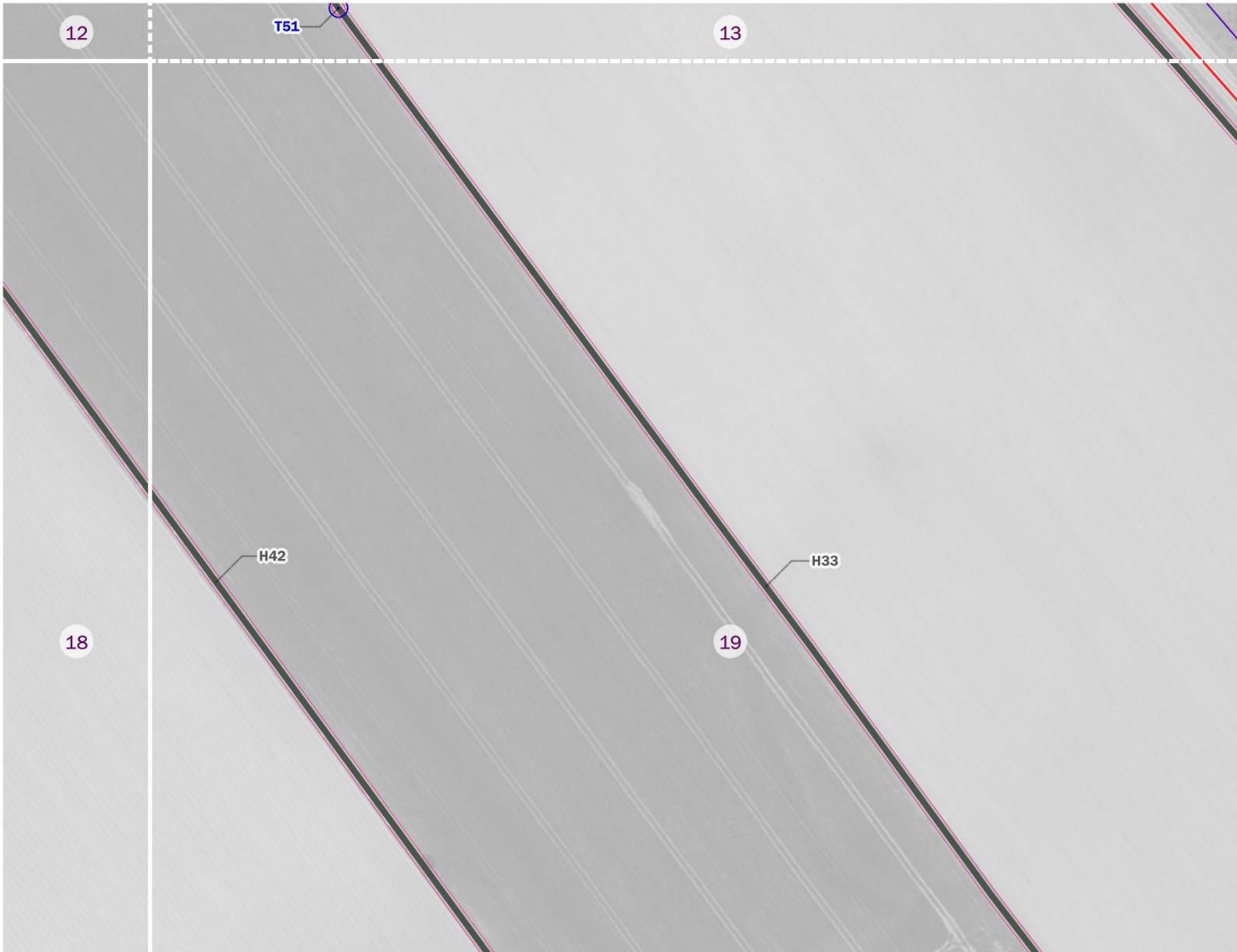
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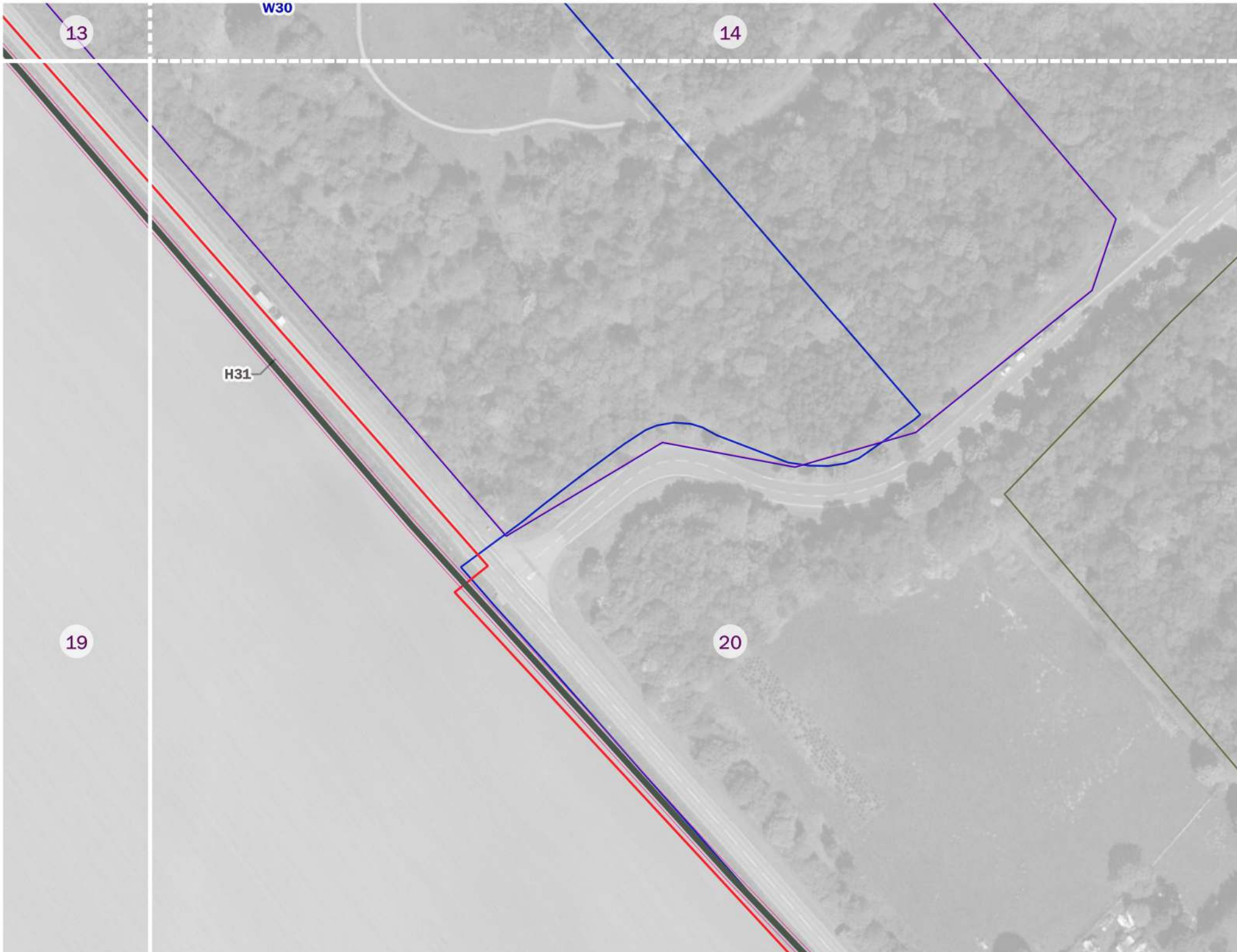
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G27
20
21
W26

15
T8
16
G27
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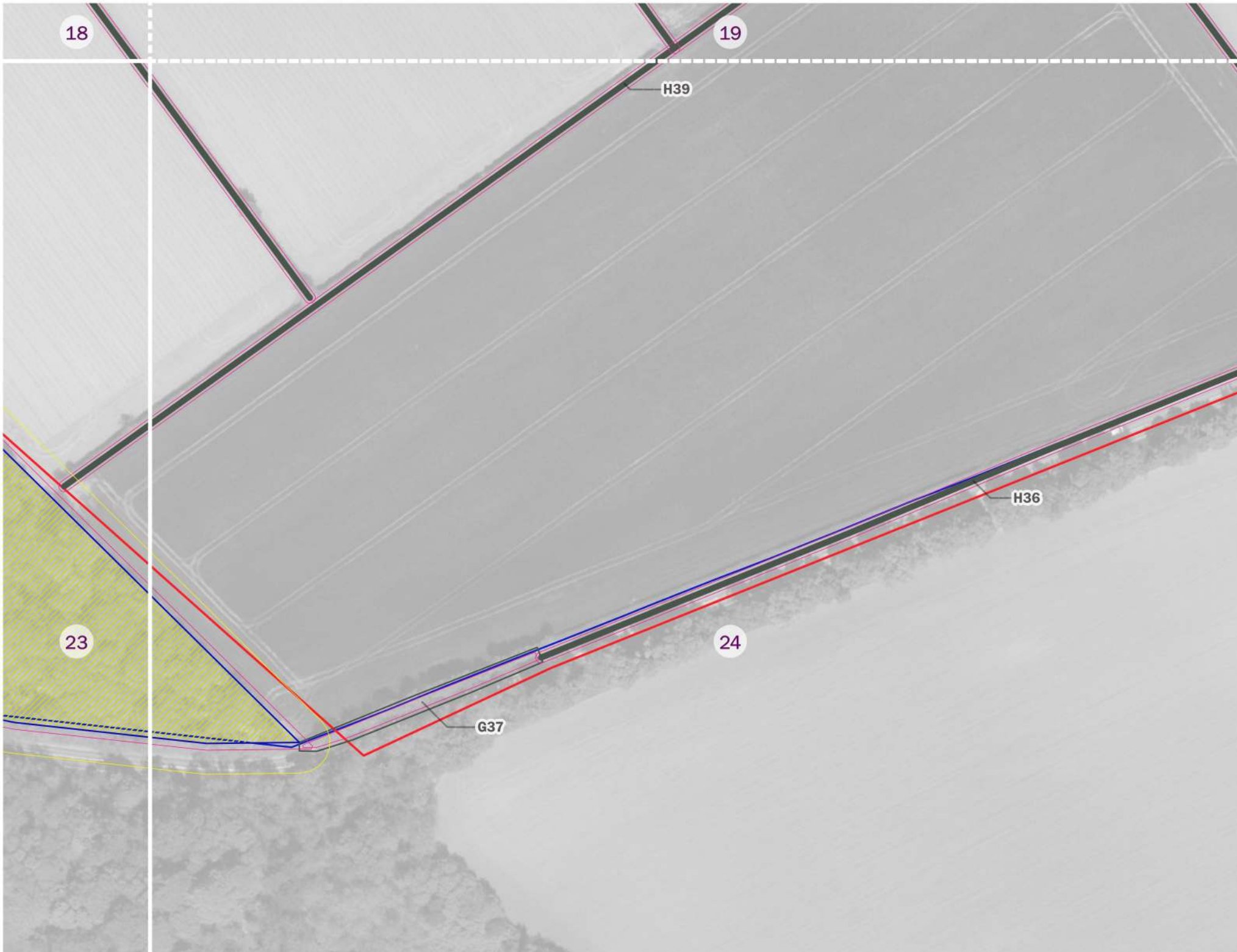
22
W26

17
18
23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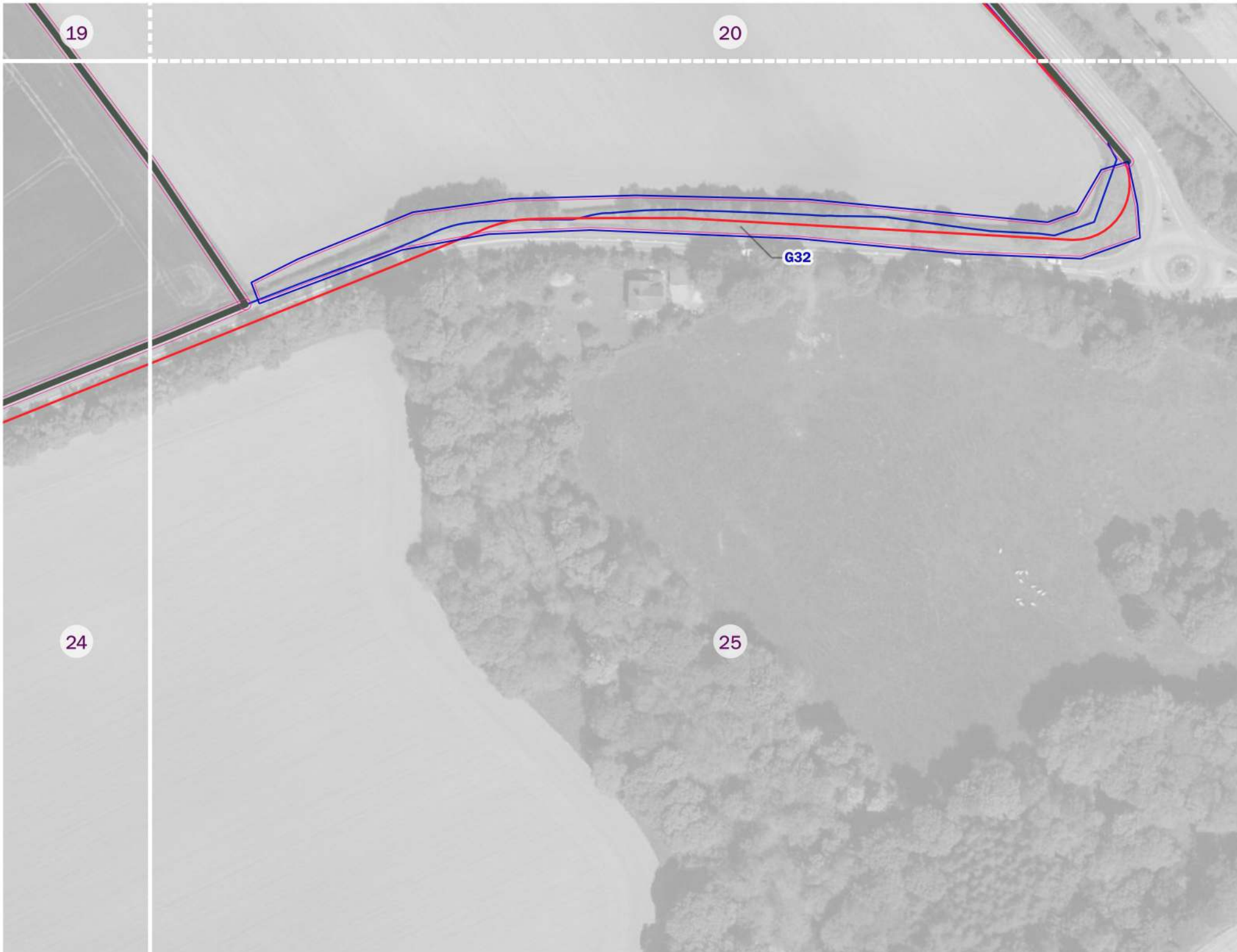
H39
H36
23
24
G37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G32
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