



# SUNNICA ENERGY FARM

## Preliminary Environmental Information Report

Appendix 10B: High Level Tree Constraints Report

Sunnica Ltd

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## Quality information

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# 1 Introduction

- 1.1.1 The high level Tree Constraints Report was prepared in October 2019 and the DCO Site boundary reported within this report was correct at that time. A high level analysis has been carried out and the findings of this report are still considered valid for the PEI Report.

## 1.2 Background

- 1.2.1 AECOM has been instructed by Sunnica Ltd (The Applicant) to carry out a high-level assessment of the likely constraints associated with trees situated on or within the vicinity of a new proposed Solar Photovoltaic (PV) Energy Farm with battery storage areas linked to the electricity grid by a network of new underground cabling (hereafter referred as 'the Scheme').
- 1.2.2 This report identifies preliminary high-level information in relation to the nature and potential level of constraint posed by existing trees within the assessment area and is intended to inform the development of the Scheme and the scope of more detailed tree survey assessments.

## 1.3 The Scheme Boundary

- 1.3.1 The Scheme Boundary is identified in Appendix A of this report. The Scheme comprises three sites (Sunnica East Site, Sunnica West Site A and Sunnica West Site B) together with associated infrastructure for connection to the national grid and would allow for the storage and export of in excess of 50 megawatts (MW) electrical generation capacity.
- 1.3.2 The Scheme will connect to an extension to the existing Burwell National Grid Substation by underground cables, located within cable corridors. These would be directed along highways or open countryside and require the crossing of a railway, watercourses, various utilities and roads. The Scheme includes infrastructure for connection to the national grid between the Sunnica East Site and the Sunnica West Site A (hereafter referred to as 'Grid Connection Route A') and between the Sunnica West Site A and the Burwell National Grid Substation ('Grid Connection Route B').

## 1.4 Trees and the Planning Process

- 1.4.1 The National Planning Policy Framework (NPPF) seeks to ensure that new development is sustainable and underlines the importance of Green Infrastructure, of which trees form an integral part. This encompasses recognition of the importance of trees in relation to the management of air, soil and water quality along with other associated ecosystem services and climate change adaption. The NPPF also seeks to achieve the protection and enhancement of landscapes and a net gain in biodiversity. Finally, it specifically identifies veteran and ancient trees and woodland as a highly valuable and irreplaceable habitat.
- 1.4.2 Local Planning Authorities (LPA) in the UK are a statutory consultee to the Development Consent Order (DCO) process and will consider the potential impact of development on all trees (including those not protected by a Tree

Preservation Order or other statutory designation) formed within the DCO submission.

- 1.4.3 *BS5837* provides a framework which sets out how trees should be considered in this context and also explicitly applies to development where planning consent is not required.
- 1.4.4 *BS5837* recommends that a tree survey is undertaken to identify the quality and benefits of trees and the spatial constraints associated with them. This is then used to produce a Tree Constraints Plan showing the above and below ground constraints associated with trees. This drawing is used to inform the design process and to allow the retention of good quality trees where appropriate.
- 1.4.5 An Arboricultural Impact Assessment is then developed to identify the likely direct and indirect impacts of the proposed development, and a Tree Protection Plan is prepared to identify trees to be removed or retained and to illustrate how retained trees are to be protected. An Arboricultural Method Statement is often required as a condition of planning consent to detail how sensitive operations are to be achieved in close proximity to retained trees. These elements are the minimum normally required for a planning application and are intended to ensure both a sustainable and harmonious relationship between trees and new development.

## 1.5 National Policy for Electricity Networks

- 1.5.1 The National Policy Statement for Electricity Networks Infrastructure documents EN-1, EN-3 and EN-5 (2011) set out the national policy for energy infrastructure in relation to planning and design.
- 1.5.2 In terms of trees, document EN-1 draws reference to Ancient Woodland and Veteran Trees. Section 5.3.14 details that:

*‘Ancient woodland is a valuable biodiversity resource both for its diversity of species and for its longevity as woodland. Once lost it cannot be recreated. The IPC should not grant development consent for any development that would result in its loss or deterioration unless the benefits (including need) of the development, in that location outweigh the loss of the woodland habitat. Aged or ‘veteran’ trees found outside ancient woodland are also particularly valuable for biodiversity and their loss should be avoided. This does not prevent the loss of such trees where the IPC is satisfied that their loss is unavoidable. Where such trees would be affected by development proposals the applicant should set out proposals for their conservation or, where their loss is unavoidable, the reasons why.’*

- 1.5.3 Sections 2.8.5 and 6 of document EN-5 outline the following guidance in relation to design for new infrastructure:

*‘2.8.5 Guidelines for the routing of new overhead lines, the Holford Rules, were originally set out in 1959 by Lord Holford, and are intended as a common-sense approach to the routing of new overhead lines. These guidelines were reviewed and updated by the industry in the 1990s and should be followed by developers when designing their proposals.’*

*2.8.6 In overview, the Holford Rules state that developers should: choose tree and hill backgrounds in preference to sky backgrounds wherever possible. When a line has to cross a ridge, secure this opaque background as long as possible, cross obliquely when a dip in the ridge provides an opportunity. Where it does not, cross directly, preferably between belts of trees; prefer moderately open valleys with woods where the apparent height of towers will be reduced, and views of the line will be broken by trees.'*

## 1.6 Local Policy Context

- 1.6.1 The Scheme is located within two local authority districts. These are West Suffolk Council and East Cambridgeshire District Council.
- 1.6.2 The relevant council websites each contain guidance on how the authority expects to see trees considered in relation to development and design. The relevant policies referring to trees are outlined in separate headings within this section according to the local authority district.

## 1.7 East Cambridgeshire District Council Local Plan (2015)<sup>1</sup>

- 1.7.1 Policy ENV 7: Biodiversity and geology states:

*'Development proposals where the main aim is to conserve biodiversity will be permitted; and opportunities to incorporate biodiversity into new development will be supported.*

*All development proposals will be required to:*

- Protect the biodiversity and geological value of land and buildings and minimise harm to or loss*
- of environmental features, such as trees, hedgerows, woodland, wetland and ponds.*
- Provide appropriate mitigation measures, reinstatement or replacement of features and/or*

*compensatory work that will enhance or recreate habitats on or off site where harm to*

*environmental features and habitat is unavoidable; and*

- Maximise opportunities for creation, restoration, enhancement and connection of natural habitats as an integral part of development proposals.'*

## 1.8 Forest heath and St Edmundsbury Local Plan Joint Development Management Policies document (2015)<sup>2</sup>

- 1.8.1 Policy DM13: Landscape Features states:

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<sup>1</sup> East Cambridgeshire District Council Local Plan (Adopted April, 2015)  
[https://www.eastcambs.gov.uk/sites/default/files/Local%20Plan%20April%202015%20-%20front%20cover%20and%20inside%20front%20cover\\_0.pdf](https://www.eastcambs.gov.uk/sites/default/files/Local%20Plan%20April%202015%20-%20front%20cover%20and%20inside%20front%20cover_0.pdf)

<sup>2</sup> Forest Heath and St Edmundsbury Local Plan Joint Development Management Policies document (Adopted February 2015)  
([https://www.westsuffolk.gov.uk/planning/Planning\\_Policies/local\\_plans/upload/JDMPD-FINAL-for-website-R.pdf](https://www.westsuffolk.gov.uk/planning/Planning_Policies/local_plans/upload/JDMPD-FINAL-for-website-R.pdf))

*‘Development will be permitted where it will not have an unacceptable adverse impact on the character of the landscape, landscape features, wildlife, or amenity value.*

*All proposals for development should be informed by, and be sympathetic to, the character of the landscape.*

*All development proposals should demonstrate that their location, scale, design and materials will protect, and where possible enhance the character of the landscape, including the setting of settlements, the significance of gaps between them and the nocturnal character of the landscape.*

*Developers/applicants will be required to submit, where appropriate, landscaping schemes with applications for planning permission and for the approval of reserved matters.*

*Where any harm will not significantly and demonstrably outweigh the benefit of the proposal, development will be permitted subject to other planning considerations.*

*However, it is essential that commensurate provision must be made for landscape mitigation and compensation measures, so that harm to the locally distinctive character is minimised and there is no net loss of characteristic features.*

*Where this is not possible development will not be permitted.’*

- 1.8.2 The policies provide an insight into the value afforded to trees and woodland in the planning process and how the local authorities expect impacts on trees and proposed new planting to be managed.

## 1.9 Methodology

- 1.9.1 This high-level tree constraints assessment has been based on Ordnance Survey base mapping, the National Tree Map (NTM) data set and walk-over assessment for accessible areas.
- 1.9.2 Approximate tree height and canopy spread information taken from the NTM data set was used in conjunction with walk-over assessments to identify trees likely to be of higher value and to allow an assessment of the typical approximate nature and spatial constraints associated with trees. A notional buffer zone has been added around each tree to illustrate the maximum likely area of significant constraint associated with above ground (tree canopies) and below ground (tree roots) parts of trees.
- 1.9.3 The buffer is based on a large data set of trees surveyed in detail by AECOM which cross references recorded tree heights against stem diameter ranges. Stem diameter is the key metric used to determine the Root Protection Area (RPA - the notional key area of tree root development important for tree health and stability) and this approach allows for the calculation of an estimated stem diameter for each tree or group derived from tree height information recorded in the NTM data set. This buffer zone is intended as high-level guidance only based on our experience surveying trees and attempts to illustrate and account for the potential approximate area of

constraint around each tree (which may be greater than the canopy spread shown in the NTM data).

- 1.9.4 In addition to the above process, an assessment of aerial photography using Google Earth was carried out to identify those trees and tree groups likely to be of the greatest significance where walk-over survey access was not possible. This assessment incorporated an assessment of tree height, canopy width, shadow and location and the relative importance of trees is based upon the discretion of the surveyor (experienced in undertaking tree surveys to BS 5837). Google Street View was also utilised on an ad hoc basis where feasible to provide additional verification of the assessment process.
- 1.9.5 Section 4.6.1 of BS5837 recommends that RPAs are capped at 707m<sup>2</sup> and this is equivalent to a circle with a radius capped at 15m for each individual tree and therefore the buffer zone is capped at this radius around the largest trees within the study area.
- 1.9.6 A walk-over survey of publicly accessible areas was carried out to verify the general results of the desk top study, map areas of trees of likely higher value and to identify those trees of low stature and large stem diameters which wouldn't be afforded a suitable buffer zone using the assessment methodology which is based on tree height (this could apply to veteran trees which are afforded a high priority in the planning process).
- 1.9.7 The walk-over assessment of the Scheme was undertaken over a period ranging from 10<sup>th</sup> to 12<sup>th</sup> December 2018, 7<sup>th</sup> to 9<sup>th</sup> January, 28<sup>th</sup> to 29<sup>th</sup> May, 3<sup>rd</sup> to 4<sup>th</sup> July and 6<sup>th</sup> September 2019.
- 1.9.8 A detailed BS 5837 survey is beyond the scope of this high-level assessment which would preferably inform the scope of future detailed surveys.
- 1.9.9 The assessment results and information in relation to statutory and non-statutory designations such as Conservation Areas, Tree Preservation Orders and designated Ancient Semi Natural Woodland have been incorporated into the High-Level Tree Constraint Assessment Plans, included as Appendix B.



## 2 General Arboricultural Principles

### 2.1 General Principles

- 2.1.1 Trees are dynamic living organisms which provide essential benefits to society and the wider environment. Any proposed development with the potential to impact on trees must take into consideration the value of trees on Site; the impact of any proposed activity along with any potential future conflicts on the site.
- 2.1.2 Suitable measures to safeguard retained trees or mitigate the loss of trees (to be removed) will need to be fully considered and may be subject to a condition of planning consent.
- 2.1.3 Tree branches and roots frequently grow across site boundaries and off-site trees can pose a significant constraint and should be carefully considered when assessing the developable space within a site.

### 2.2 Below Ground Constraints

- 2.2.1 Below ground tree roots and the soil environment in which they grow need to be protected if the tree is to be retained. Trees grow in association with fungi and other soil organisms which are of key importance to tree health. Roots are essential for anchorage, the uptake of water and nutrients, and the storage of energy (carbohydrates) for the future growth and function of the tree.
- 2.2.2 Roots can be damaged by physical severance or wounding (e.g. following excavation of the soil), which can lead to the development of decay and a decline in vitality and/or instability. Raising the soil level can bury tree roots at a depth where suitable conditions for growth are less available. Toxic materials discharged into the soil (such as cement based aggregates, fuel and chemicals) can lead to root death and dysfunction. Soils can be compacted to levels inhospitable to tree growth with even a single pass of machinery, regular pedestrian traffic or the storage of plant and materials. Relieving compaction can be problematic and may require costly remedial works. Changes in drainage/water levels can also have significant long-term impacts for tree health.
- 2.2.3 The effects of these incursions may take many years to manifest, with a resulting decline in amenity value and potentially the death or failure of the tree. It should be noted that older trees are particularly sensitive to damage and changes in conditions.
- 2.2.4 The RPA is a notional area considered to be the minimum zone that must be protected to avoid any adverse impacts on retained trees. This area is deemed to be particularly important for tree stability, growth, function and health. However, roots may extend far greater distances, with the distribution of the root system relating directly to the availability of suitable conditions for growth (namely oxygen, water and nutrients). It is generally accepted that tree roots are predominantly located in the upper 1000mm of soil; however, roots may develop at deeper levels where conditions allow.

- 2.2.5 RPAs are calculated as per BS5837: 2012 Annex C, D and Section 4.6 in the BS 5837 2012 Document.
- 2.2.6 The RPA of the existing tree stock is an important material consideration when considering site constraints and planning development activities. The RPA of significant trees on site must be determined via a detailed tree survey.
- 2.2.7 The default position must be that all development, including any associated services will occur outside the RPAs of retained trees. Where this is unavoidable, it may be appropriate to use special measures to install structures, services or surfacing within RPAs which allow the protection of roots and soil structure which are essential for tree growth and keep any incursion to a minimum.
- 2.2.8 Further steps to improve or increase the useable rooting area available to the tree may also be required.

## 2.3 Soils

- 2.3.1 On shrinkable clay soil, tree growth can lead to the differential movement of structures as moisture is removed from the soil during the growing season. Soils must be carefully assessed, and any foundations must be installed following the recommendations of National House Building Council (NHBC) Standards *Chapter 4.2: Building Near Trees* (2018) to avoid potential future damage. Where trees which predate existing structures are to be removed, this can result in heave as the soils are re-wet.
- 2.3.2 The advice of a suitably qualified engineer must be obtained to inform any potential issue of heave. Specific advice in relation to this issue is beyond the scope of this report.

## 2.4 Above Ground Constraints

- 2.4.1 Tree stems and branches can restrict available space on site. Damage or wounding (including excessive pruning) can significantly reduce the amenity contribution of the tree and may lead to the development of dysfunction and decay, with significant long-term implications for tree health. The future impact of existing trees should be carefully considered, including individual species characteristics (such as potential future size, fruit fall, shade etc.) and how the tree will interact with any proposed development and future land use. Annual tree growth can lead to direct damage if stems/branches (or roots) come into physical contact with structures and this must also be taken into consideration.

## 2.5 Trees and Risk in the Context of Development

- 2.5.1 Tree owners/managers have a legal duty to prevent foreseeable harm. It is generally accepted that this duty can be fulfilled by undertaking proactive inspections of significant trees to identify obvious defects and by taking appropriate remedial action or gaining further advice as appropriate.
- 2.5.2 AECOM can provide surveys and advice in relation to tree risk management if required. Further guidance is available from the National Tree Safety Group<sup>5</sup>.

- 2.5.3 The walkover assessment carried out as the basis of this report is primarily for early stage design and planning purposes, focusing on the likely quality and benefits of the trees and did not consider the safety of trees.
- 2.5.4 The Construction (Design and Management) Regulations (2015) states that developers and contractors have responsibilities for health and safety as a result of their actions. Should trees be left in an unstable or hazardous condition the Health and Safety Executive (HSE) could seek to prosecute those responsible along with the potential for further Civil claims for damages.

## 2.6 Trees and Wildlife

- 2.6.1 Full consideration must be given to the presence of species, in particular the presence of bats and nesting birds protected under the Wildlife and Countryside Act (1981 - as amended), the Countryside Rights of Way Act (2000) and the Conservation of Habitats and Species Regulations (2017). It is recommended that wherever possible, significant tree/hedge works take place outside of the typical bird nesting season of March to September (inclusive).

## 2.7 Statutory and Non-Statutory Designations

- 2.7.1 Statutory designations including Conservation Areas and Tree Preservation Orders (TPOs) affecting trees within or immediately adjacent to the study area are highlighted in the High-Level Tree Constraints Plan in Appendix B.
- 2.7.2 There are no Conservation Areas within the study area, and three TPOs bordering the study area. The TPOs are identified in Sheet 2 (Thistley Green south, West Suffolk Council), Sheet 4 (Freckenham north, West Suffolk Council), Sheet 8 (Red Lodge north east, West Suffolk Council) and Sheet 15 (Burwell north, East Cambridgeshire District Council) of Appendix B of this report.
- 2.7.3 TPOs protect all trees specified within the TPO schedule and require an 8-week tree works application in advance of any work.
- 2.7.4 Conservation Area designations protects all trees >75mm in diameter (measured at 1.5m) within the designated area and require a six-week Section 211 notification to the relevant LPA in advance of any works.
- 2.7.5 Tree works specifically identified as required (at the application stage) to facilitate full planning permission are exempt from these requirements.
- 2.7.6 Prior to any tree works the presence of any Tree Preservation Orders or Conservation Area designations must be re-confirmed with the relevant local authority.
- 2.7.7 A felling licence is required to fell more than 5m<sup>3</sup> per calendar quarter unless the work is exempt (such as necessary to implement full planning consent or works necessary on health and safety grounds). Prior to any tree felling works (where full planning consent or other statutory exemption is not in place) this situation must be confirmed with the Forestry Commission.

- 2.7.8 The recently updated Woodland Trust Ancient Tree Inventory<sup>3</sup> contains a database of recorded ancient or veteran trees. The findings from the interactive mapping tool indicate the presence of a veteran sycamore (*Acer pseudoplatanus*) in land to the northwest of Burwell. This tree was not found during the walkover assessment of the area identified in the Woodland Trust inventory however any proposed works in this area should be subject to a more detailed assessment to identify the precise location of this tree and its veteran status. However, several trees with veteran characteristics were identified during the survey which are identified in the accompanying High-Level Tree Constraints Plan contained in Appendix B of this report.
- 2.7.9 Veteran trees are considered to be an irreplaceable resource and should be retained and protected. The NPPF and current standing advice from Natural England and the Forestry Commission<sup>4</sup> states that development affecting veteran trees should be refused unless justification is wholly exceptional. Veteran trees require a buffer equivalent to 15 x stem diameter (at 1.5m) or the canopy spread +5m (whichever is greatest).
- 2.7.10 Following an assessment of the Magic Map<sup>5</sup> resource a number of areas within or adjacent to the Scheme are classified as priority habitats (non-statutory designations). No Sites of Special Scientific Interest (SSSIs) or designated Ancient Woodlands are located directly within the study area.
- 2.7.11 The non-statutory designations relate to ‘deciduous woodland’, ‘traditional orchard’ and ‘wood pasture and parkland’ denoted on the Magic Map as varying shades of green hatching. These non-statutory designations do not require specific consent prior to tree works but are likely to be taken into consideration by the Local Authority when reviewing the DCO submission.
- 2.7.12 The Hedgerow Regulations (1997) protect agricultural or countryside hedgerows which meet the requirements of an ‘important hedgerow’. These include a minimum length of 20m (or meets another hedge at each end) and a minimum age of at least 30 years. A wide range of other ecological and archaeological/heritage features can constitute an important hedgerow and further advice from a qualified ecologist is recommended in advance of any planned works which could impact established hedgerows on or bordering agricultural or countryside land. Prior to the removal or destruction of a protected hedgerow an application must be made to the relevant Local Planning Authority. Full planning consent is an exemption to this requirement.

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<sup>3</sup> Woodland Trust Ancient and Veteran Tree Inventory (<https://ati.woodlandtrust.org.uk/>)

<sup>4</sup> <https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences>

<sup>5</sup> DEFRA Magic Map Application (<https://magic.defra.gov.uk/MagicMap.aspx>)

## 3 Tree Related Constraints and Opportunities

- 3.1.1 The High-Level Tree Constraints Plan (Appendix B) shows the indicative area of notional constraints associated with the trees within the Scheme. This principally relates to the above ground canopy and the below ground rooting area or RPA.

### 3.1 Statutory and Non-Statutory Designations

#### *Sunnica East Site*

- 3.1.1 The trees in the Sunnica East Site and adjoining cable route southwards to the Sunnica West Site A area are predominantly semi mature to mature in age. The main species include hybrid black poplar (*Populus × canadensis*), white poplar (*Populus alba*), oak (*Quercus* sp.), Scots pine (*Pinus sylvestris*), common beech (*Fagus sylvatica*) and Corsican pine (*Pinus nigra*).
- 3.1.2 The southern extent of the Sunnica East Site contains several semi mature pine plantations in good condition. In the southern area, large linear groups of pine and poplar denote field boundaries with a number of large broadleaf dominated woodlands/groups that range from semi mature to mature and consist of predominantly oak and beech mixed with occasional pine. A large group of notable mature beech were recognised as likely high quality (Category A) and are located in the north east of Sheet 7 of the High-Level Tree Constraints Plan.
- 3.1.3 In the northern extent of the Sunnica East Site, naturalised field boundary groups dominated by oak denote field boundaries, one high value group of trees is identified in Sheet 1 of the High-Level Tree Constraints Plan. Further west of the northern area the tree coverage is sparser; with occasional groups of mature poplar and willow aligning watercourses between arable fields.
- 3.1.4 No likely veteran or ancient trees were recorded within the Sunnica East Site.

#### *Sunnica West Site A*

- 3.1.5 The trees within the Sunnica West Site A are semi mature to mature in age. The main species include Scots pine, Corsican pine, common beech, sycamore, common oak, common ash (*Fraxinus excelsior*) and crack willow (*Salix fragilis*).
- 3.1.6 At the western side of Sunnica West Site A (within the grounds of Water Hall Farm), large linear pine, beech, willow and sycamore dominated groups denote field boundaries with a number of large broadleaf dominated woodlands/plantation groups. These areas consist of ash, beech, sycamore, birch, alder and pine. Occasional mature trees were recognised as likely high quality and are located occasionally throughout Sheets 18, 19, 22 and 23 of the High-Level Tree Constraints Plan.

- 3.1.7 At the eastern side of Sunnica West Site A (within the grounds of La Hogue and Dane Hill Farm) are several high-quality trees and small groups identified in Sheet 20 of the High Level Tree Constraints Plan. The La Hogue Farm area contains several high value mature oak trees surrounding the entrance of the farm shop, at the rear of the farm shop are two trees identified as having numerous characteristics which define them as trees of veteran status. Veteran characteristics present included a large mature oak tree with a retrenched crown form and large sections of deadwood remaining; the main stem of this tree is wide and ivy clad with a small cavity showing signs of bird activity. Approximately 30 metres west of this tree was a small ash tree with a hollow stem and regenerative growth, at the inside of the hollow stem were fungal fruiting bodies.
- 3.1.8 Eastwards towards Dane Hill Farm are arable fields bordered mainly by moderate quality groups dominated by oak, aspen (*Populus tremula*), beech and field maple. Within this groups are three large mature individual native black poplar (*Populus nigra*) trees. Native black poplar is rarely distributed in Britain, with numbers currently at an estimated 8000 trees (identified on Sheet 20 of the High-Level Tree Constraints Plan). Although there are no specific statutory designations affording protection for native black poplar, the Hedgerows Regulations 1997 would afford some protection to the tree and hedge and in the context of BS 5837 and the consideration of trees in relation to the planning system these trees are a high value material constraint that should be retained, protected and afforded sufficient space in relation to any development proposals.



Figures 1-4: (from left to right): veteran oak and ash trees tree north of La Hogue Farm shop. Native black poplar south of Dane Hill Farm)

### **Sunnica West Site B**

- 3.1.9 The trees within the Sunnica West Site B redline boundary area are semi mature to mature in age. The main species include common ash, crack willow, hybrid black poplar and Norway spruce (*Picea abies*). One small group of high value trees was identified however the majority of trees in this area were identified as being low to moderate quality.

### **Cable Route A and B**

- 3.1.10 Cable Route A, leading southwards to Sunnica West Site A runs across arable fields containing trees established within hedgerow areas denoting boundaries. These areas are predominantly low value with the exception of

one oval-shaped high-quality woodland group identified in Sheet 14 of the High-Level Tree Constraints Plan.

- 3.1.11 At the south of Sunnica West Site B, Cable Route B runs southwards to Sunnica West Site A to the east of the village of Snailwell. This route crosses arable fields with moderate value plantation tree groups denoting the field boundaries, and one high value group of planted beech trees aligning Chippenham Road (see Sheet 18 of the High-Level Tree Constraints Plan).
- 3.1.12 The main species within Cable Route B, Burwell to Sunnica West B, include sycamore, common ash and crack willow denoting field boundaries and aligning the Catch Water Drain watercourse at the west side of the village of Burwell. The majority of trees in this area were identified as being low to moderate quality (see Sheets 9, 10, 15 and 21 of the High-Level Tree Constraints Plan).

## 1.1 Considerations

- 3.1.13 Trees and hedgerows are a material consideration and higher quality trees are likely to be a material constraint on any development activity. The High-Level Tree Constraints Plan (included as Appendix B) shows trees which may be of particular importance due to their size or position. The NPPF seeks to achieve a net gain in biodiversity and the protection and enhancement of landscapes. Higher quality trees pose the greatest constraint, and this generally equates to larger/more mature specimens which are less easily replaced.
- 3.1.14 In addition, areas of woodland located within and adjacent to the Scheme Boundary are generally considered to be of high value and should be retained and protected. Agricultural and other hedgerows intersect the Scheme Boundary and may be subject to statutory protection under the Hedgerows Regulations (1997).
- 3.1.15 Where trees exist as coherent groups, in particular woodland blocks, mature hedgerows, tree clumps or equivalent features, these are generally considered as a group feature due to their overall contribution to the land within the Scheme Boundary. These are generally valuable in terms of amenity and biodiversity. Removing sections of these groups or isolating individual trees could potentially leave retained trees vulnerable to wind-throw or other damage, due to increased exposure, as the companion shelter of adjacent trees is lost. Where this is a potential risk, specific arboricultural advice is recommended.
- 3.1.16 Initial assessment of the land within the Scheme Boundary indicates there are likely to be some significant individual trees and tree groups which are likely to be a material constraint on development. Those trees considered to pose the greatest level of constraint are identified on the High-Level Tree Constraints Plan (Appendix B).
- 3.1.17 The buffer zone around each tree is an effective indicative RPA, this is estimated based on limited information and must be confirmed through a detailed assessment. The actual area of constraint may be much less than shown (or potentially greater) and the buffer zones must be treated as an indicative guide only.

- 3.1.18 The default position is that RPAs are fenced off as an exclusion zone during construction. Retained trees must be protected from damage which includes changes in ground level (including fill), excavation, soil compaction and discharge of toxic materials. In planning terms lower quality trees can often be straightforwardly removed to facilitate development from an arboricultural perspective, where their loss can be mitigated with replacement tree planting or where no replacement planting is necessary and where there are no other constraints in place (e.g. ecological or heritage).
- 3.1.19 The default position must be that higher quality trees be retained and protected however in some cases it may also be feasible to remove trees of this quality where there is no reasonable alternative and where the benefit of the development outweighs the impact of the loss of the tree/s. Should this be required pre application discussions with the LPA are recommended to manage the risk of refused consent.
- 3.1.20 New surfaces on existing soft ground within a tree RPA generally require the use of raised surfaces supported by carefully located piles or the use of proprietary load bearing surfaces (such as CellWeb, ArborRaft or equivalent) installed on top of the existing unsurfaced ground level using 'no dig' techniques. New areas of hard surfacing or building footprints should not generally occupy more than 20% of the RPA of a retained tree, as set out in Section 7.4.2.3 of BS5837.
- 3.1.21 New services or the diversion or removal of existing services must be carefully considered. In general, all new services should be routed outside of the RPA of retained trees.
- 3.1.22 Where this is unavoidable alternative methodologies such as the use of directional drilling or equivalent trenchless techniques can facilitate service installation beneath tree root systems (likely to be 1.5m+ dependent on ground conditions and tree species affected).
- 3.1.23 Shallow service runs may be installed using hand excavation where all significant tree roots can be retained, and services be threaded beneath. Existing services can be winched out from a manhole/chamber located outside of an RPA and redundant pipework can be decommissioned using pipe bursting techniques.
- 3.1.24 These operations typically require a detailed arboricultural method statement to set out in detail how they can be successfully achieved and a pre-requisite to this is the requirement for detailed tree survey information.
- 3.1.25 Where trees are to be lost to facilitate the development, robust replacement planting is likely to be required as mitigation. This will require the provision of a suitable space and un-compacted soil volumes to allow tree establishment.

## 3.2 The Benefits of Trees

- 3.2.1 Well placed trees are aesthetically pleasing, add instant maturity to a site and can attract investment and higher property values along with a host of other health, well-being, amenity and biodiversity benefits. Trees can slow traffic and reduce driver stress as well as contributing significantly to air quality, storm water management and buffering local air temperature extremes and resulting heating and cooling costs.



- 3.2.2 Different tree species provide varying benefits so it is important to promote the most advantageous species for a given location and this must be considered in conjunction with the wider diversity and resilience of the local tree stock with the ultimate aim to promote a broad range of well suited species, with a varied age structure, well located to maximise benefits and minimise potential conflicts.
- 3.2.3 In addition, practices in managing urban water challenges (flooding and drought) could be adopted to transform future rainwater from waste to resource. This could be achieved by utilising soil volumes for new planting and existing tree root systems to incorporate rainwater storage and interception systems to reduce urban climate change effects.

### 3.3 The Future Impact of Trees

- 3.3.1 The future impact of trees on site must be considered in relation to any Scheme design. Trees and groups to be retained must be afforded suitable space to ensure they remain viable in the long term. Trees which are currently not fully grown (in particular young and semi mature trees) will increase in size and this must be considered in conjunction with the proposed development for the Scheme.
- 3.3.2 Trees and groups will cast shade, and this is can be determined as an arc from north west to due east equivalent to tree height as per Section 5.2.2 of BS 5837. Likely mature height and canopy spread of tree species must be taken into account where shade could have a negative impact (e.g. in relation to solar panels).
- 3.3.3 New hard surfacing (installed using no dig techniques) must provide a minimum of 0.5m of clearance of tree stems to account for potential future growth and increase in girth.

### 3.4 Tree Protection

- 3.4.1 Trees to be retained in proximity to areas of development activity, including areas for new surfacing, services, work site compounds and storage will need to be protected to ensure they are not damaged. This is generally achieved with the use of robust, immovable temporary tree protection fencing, to prevent access within the RPA or canopy spread of trees. Where access is unavoidable, alternative protection arrangements such as ground protection (sufficient to protect the structure of the soil from compaction), and /or access facilitation pruning (to ensure a reasonable clearance for operations is provided) may be required. The advice of an arboriculturist should be sought to inform this assessment.

### 3.5 Tree Planting

- 3.5.1 Where trees are to be removed due to a conflict with the proposed Scheme design, mitigation planting is likely to be required to ensure a continuity of tree cover for the land within the Scheme Boundary and to address any negative impact on local amenity. Consideration should be given to the reasonable provision of space for new tree planting to off-set any necessary tree loss.

- 3.5.2 Soil structure in areas for new planting will need to be maintained and may require protection during operation of the Scheme to ensure reasonable conditions for future tree growth are available.
- 3.5.3 New planting should consider the existing species mix present on site in relation to both arboricultural and ecological considerations. New planting also offers an opportunity to increase the species and age class diversity for a given area which can boost the resilience of the local tree stock in relation to pests, disease and climate change as well as providing a greater range of amenity and other benefits.
- 3.5.4 New tree planting must adhere to the minimum planting distances detailed in Table A.1 of Annex A of BS 5837 and follow the recommendations set out in BS 8545:2014, Trees: from nursery to independence in the landscape – Recommendations.

## 4 Summary and Conclusion

- 4.1.1 The high-level assessment using NTM data, a walk over survey and assessment of aerial photography (of inaccessible areas only) using Google Earth indicates there are significant trees and tree groups within and immediately adjacent to the Scheme Boundary, which will be a material constraint for any future development.
- 4.1.2 A detailed tree survey to BS5837 (2012) is required to fully determine the quality and benefits of trees and the spatial constraints associated with them for those areas where development activity is likely to be required. The information provided in this report should be used to develop the Scheme design to avoid trees likely to be of higher quality and value as fully as possible which should in turn reduce the overall requirement for detailed tree surveying.
- 4.1.3 Lower quality trees are not likely to be a significant constraint to development where they can be satisfactorily replaced with new tree planting (or where their loss will not have a significant impact e.g. due to the retention of adjacent trees) and therefore some sections of lower quality tree cover may be feasible to remove from a planning perspective.
- 4.1.4 If the potential removal of higher value trees is unavoidable this should be discussed in advance with the relevant Local Planning Authority (LPA) in conjunction with the negotiation for consent from the tree owner, however the default position must be that trees of this quality are to be retained and protected where possible. Trees of this quality are also likely to provide the greatest value and benefit (including ecosystem services and amenity) and should therefore be considered as a green infrastructure asset to be retained where possible.
- 4.1.5 Where possible, tree group features should be retained as distinct landscape features. If it becomes necessary to develop within tree groups, specific arboricultural advice should be obtained in relation to the stability and suitability of retained trees, where the Scheme requires the removal of trees which form an effective companion shelterbelt.

- 4.1.6 Following the granting of the DCO consent, it is recommended that the advice of an arboriculturist is sought to inform the post consent design process, particularly in relation to features in close proximity to trees and proposed levels of tree loss within the Scheme Boundary.
- 4.1.7 The impact on trees during construction will be managed by the ***Landscape and Ecology Management Plan***, see Appendix 10I.

## 5 References

British Standards Institution (BSI), BS5837:2012. Trees in relation to design, demolition and construction – Recommendations. BSI

British Standards Institution (BSI), BS3998:2010. Tree work – Recommendations. BSI

British Standards Institution (BSI), BS8545:2014. Trees: from nursery to independence in the landscape – Recommendations. BSI

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([https://www.eastcambs.gov.uk/sites/default/files/Local%20Plan%20April%202015%20-%20front%20cover%20and%20inside%20front%20cover\\_0.pdf](https://www.eastcambs.gov.uk/sites/default/files/Local%20Plan%20April%202015%20-%20front%20cover%20and%20inside%20front%20cover_0.pdf))

Forest Heath and St Edmundsbury Local Plan Joint Development Management Policies Document (Adopted February 2015)  
([https://www.westsuffolk.gov.uk/planning/Planning\\_Policies/local\\_plans/upload/JDMP\\_D-FINAL-for-website-R.pdf](https://www.westsuffolk.gov.uk/planning/Planning_Policies/local_plans/upload/JDMP_D-FINAL-for-website-R.pdf))

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National Joint Utilities Group (NJUG) Volume 4, Issue 2, (2007). NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees.

National Tree Safety Group (NTSG), 2011. Common sense risk management of trees. Forestry Commission.

Natural England and The Forestry Commission (2018) Ancient woodland, ancient trees and veteran trees: protecting them from development  
<https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences>

## Appendix A Scheme Boundary Plan

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THIS DRAWING IS TO BE USED ONLY FOR THE PURPOSE OF ISSUE THAT IT WAS ISSUED FOR AND IS SUBJECT TO AMENDMENT

- LEGEND**
- Red Line Boundary
  - Not Included in Red Line
  - Public Highway within Scheme

**NOTE:**  
Public highways run through the Sunnica East Site, which are not part of the site boundary. These have been digitised based on the 1:1250 scale OS Mastermap.

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Purpose of Issue  
**NON-STATUTORY CONSULTATION**

Client  
**SUNNICA LTD**



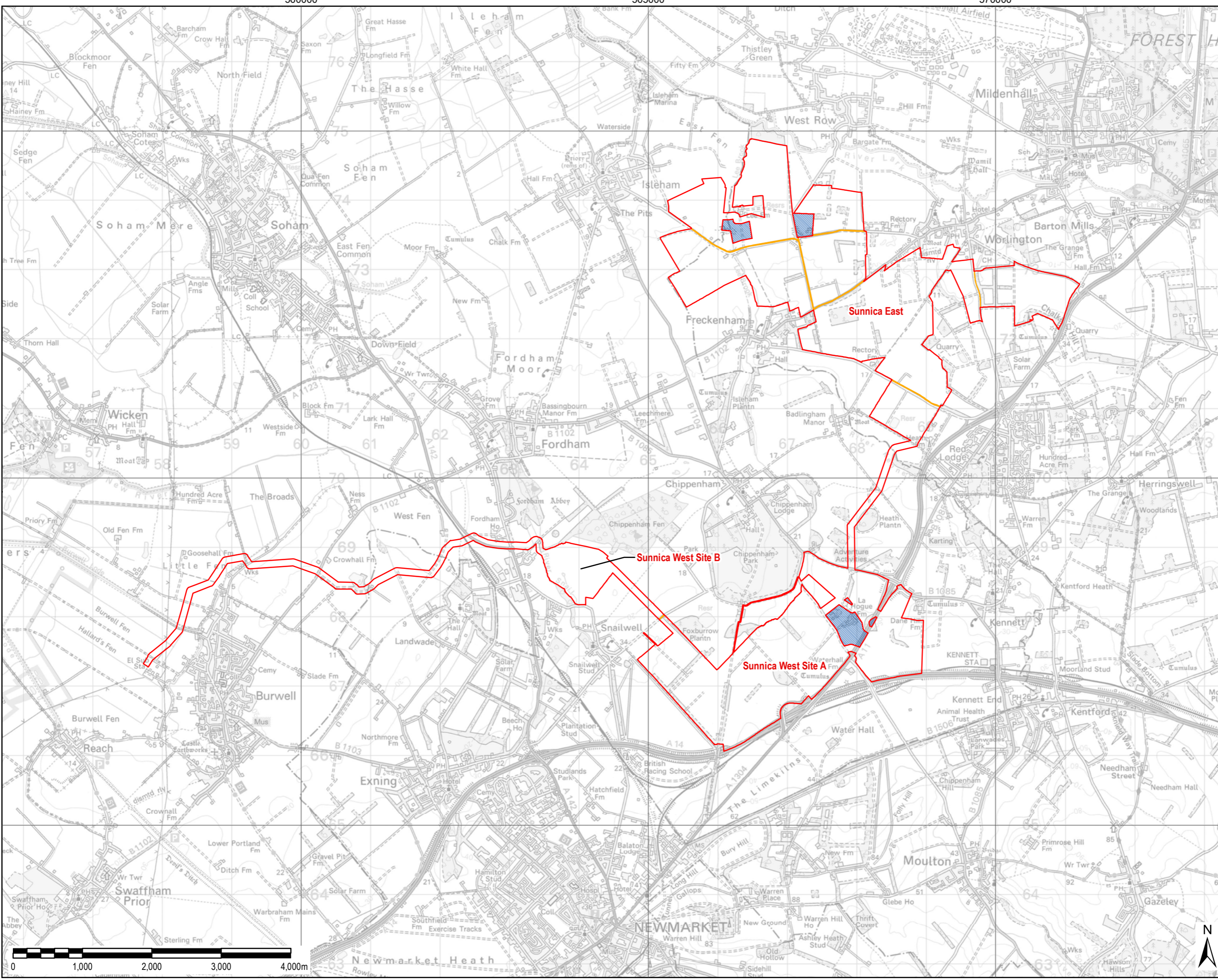
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**RED LINE BOUNDARY**

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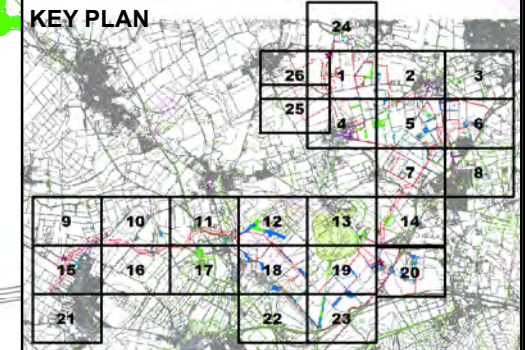
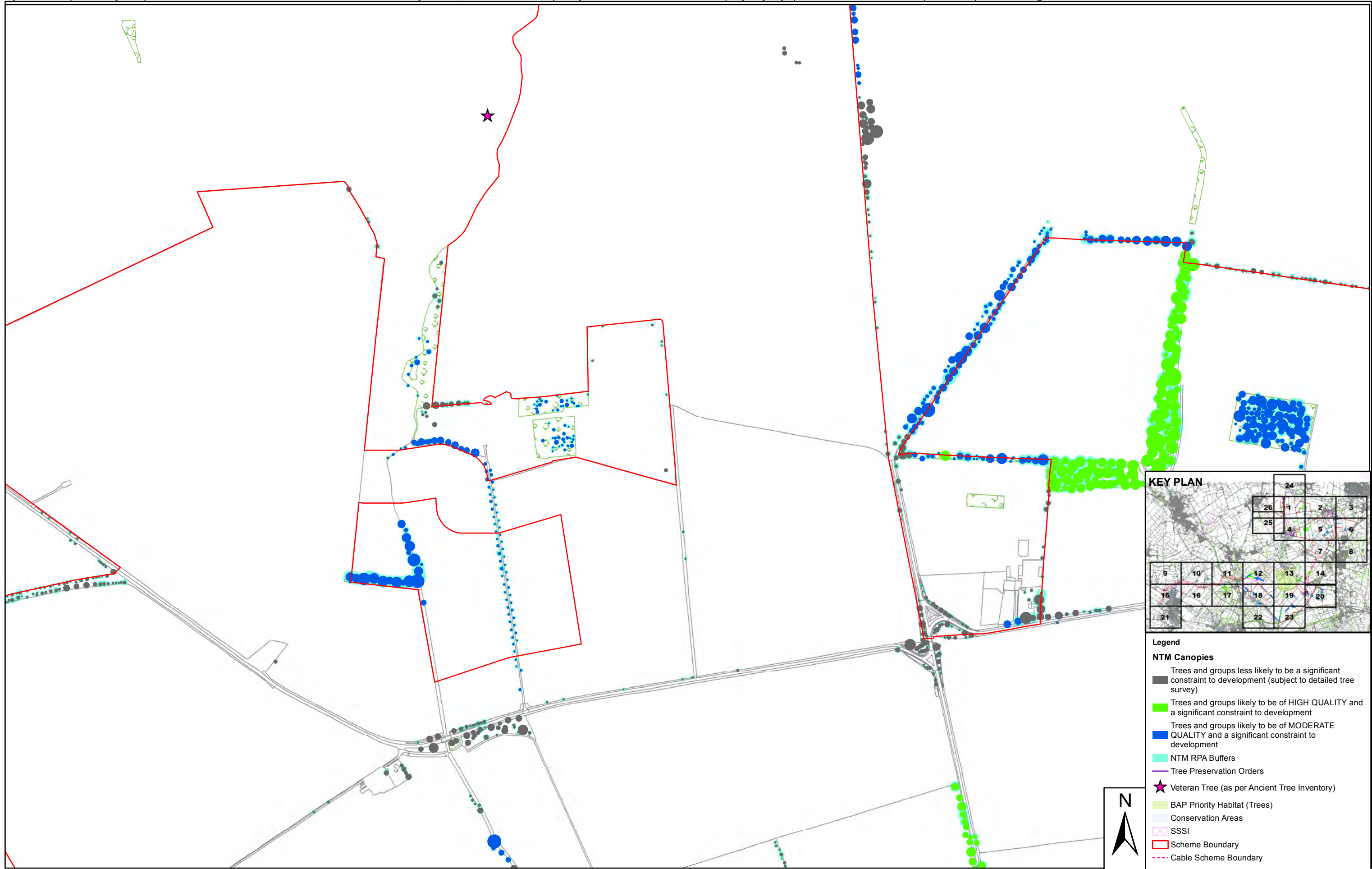
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# Appendix B High Level Tree Constraints Plan



**Legend**

**NTM Canopies**

- Grey circle: Trees and groups less likely to be a significant constraint to development (subject to detailed tree survey)
- Green circle: Trees and groups likely to be of HIGH QUALITY and a significant constraint to development
- Blue circle: Trees and groups likely to be of MODERATE QUALITY and a significant constraint to development
- Cyan line: NTM RPA Buffers
- Purple line: Tree Preservation Orders
- Pink star: Veteran Tree (as per Ancient Tree Inventory)
- Light green area: BAP Priority Habitat (Trees)
- Light blue area: Conservation Areas
- Pink hatched area: SSSI
- Red outline: Scheme Boundary
- Dashed red line: Cable Scheme Boundary



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Project:	Sunnica Energy Farm

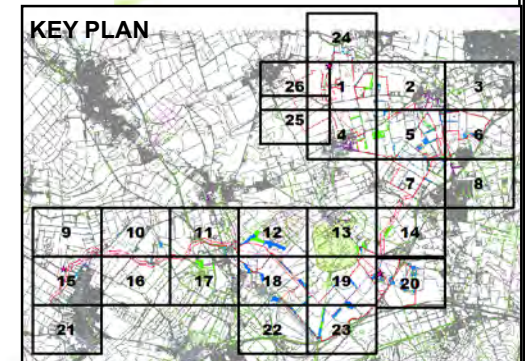
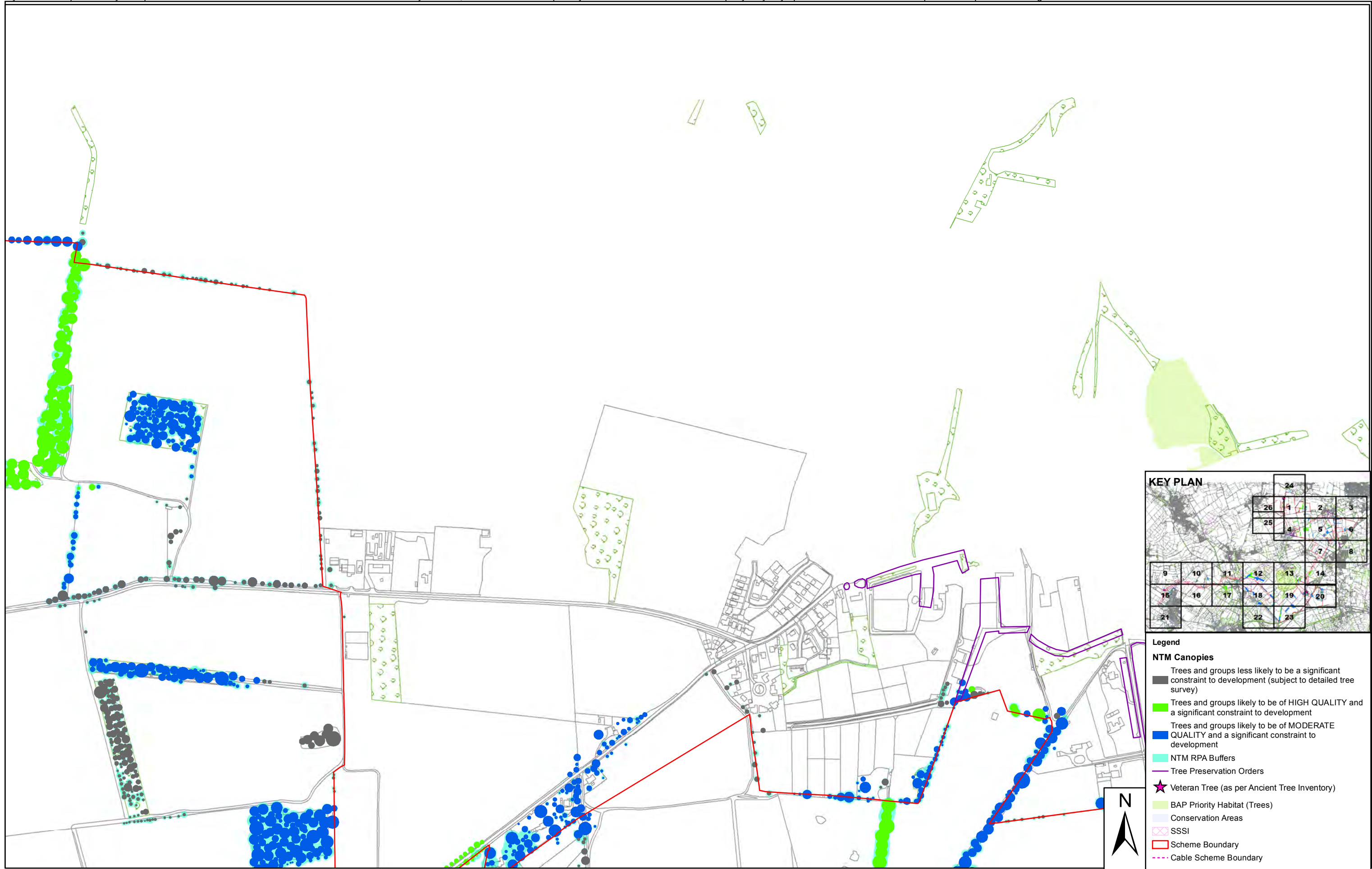
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Date:	OCTOBER 2019	Scale at A3:	1:6,450
Drawing Number: 60589004_TREE_001			A3





**Legend**

**NTM Canopies**

- Trees and groups less likely to be a significant constraint to development (subject to detailed tree survey)
- Trees and groups likely to be of HIGH QUALITY and a significant constraint to development
- Trees and groups likely to be of MODERATE QUALITY and a significant constraint to development
- NTM RPA Buffers
- Tree Preservation Orders
- ★ Veteran Tree (as per Ancient Tree Inventory)
- BAP Priority Habitat (Trees)
- Conservation Areas
- SSSI
- Scheme Boundary
- Cable Scheme Boundary

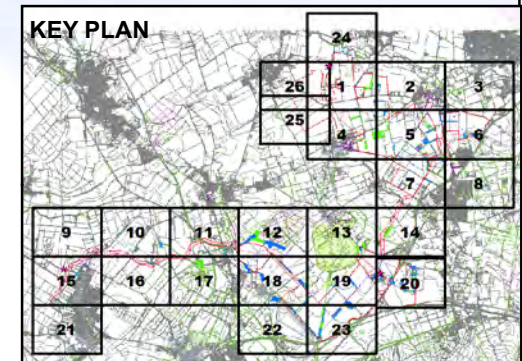
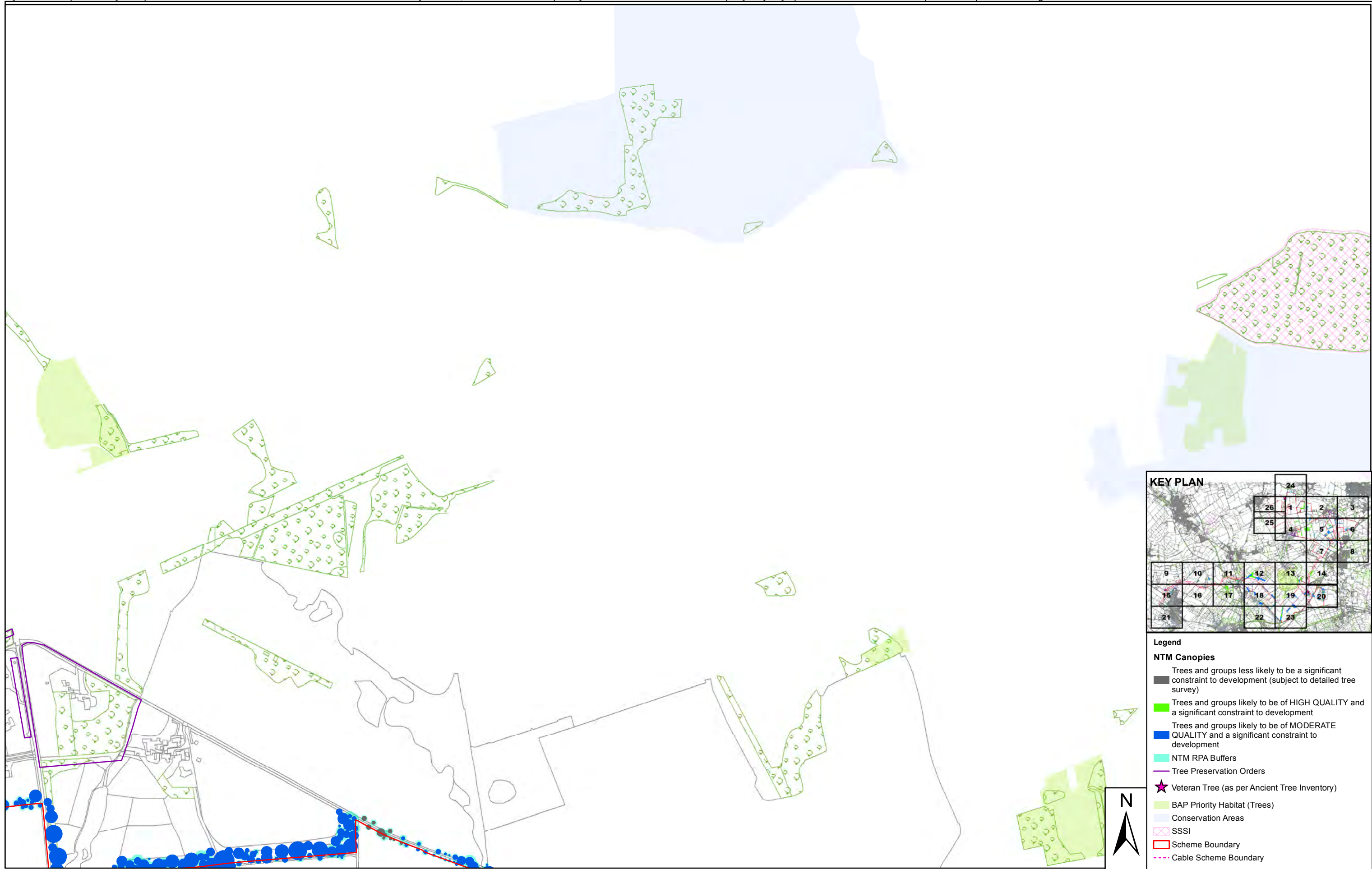
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**Legend**

**NTM Canopies**

- Trees and groups less likely to be a significant constraint to development (subject to detailed tree survey)
- Trees and groups likely to be of HIGH QUALITY and a significant constraint to development
- Trees and groups likely to be of MODERATE QUALITY and a significant constraint to development

NTM RPA Buffers

Tree Preservation Orders

★ Veteran Tree (as per Ancient Tree Inventory)

BAP Priority Habitat (Trees)

Conservation Areas

SSSI

Scheme Boundary

Cable Scheme Boundary

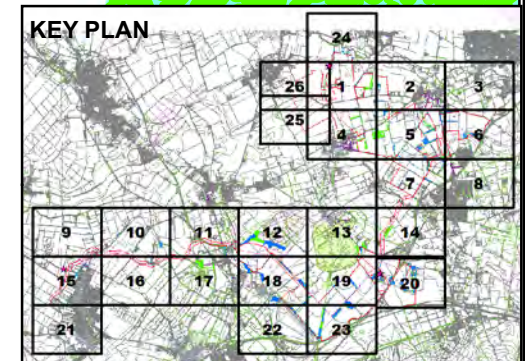
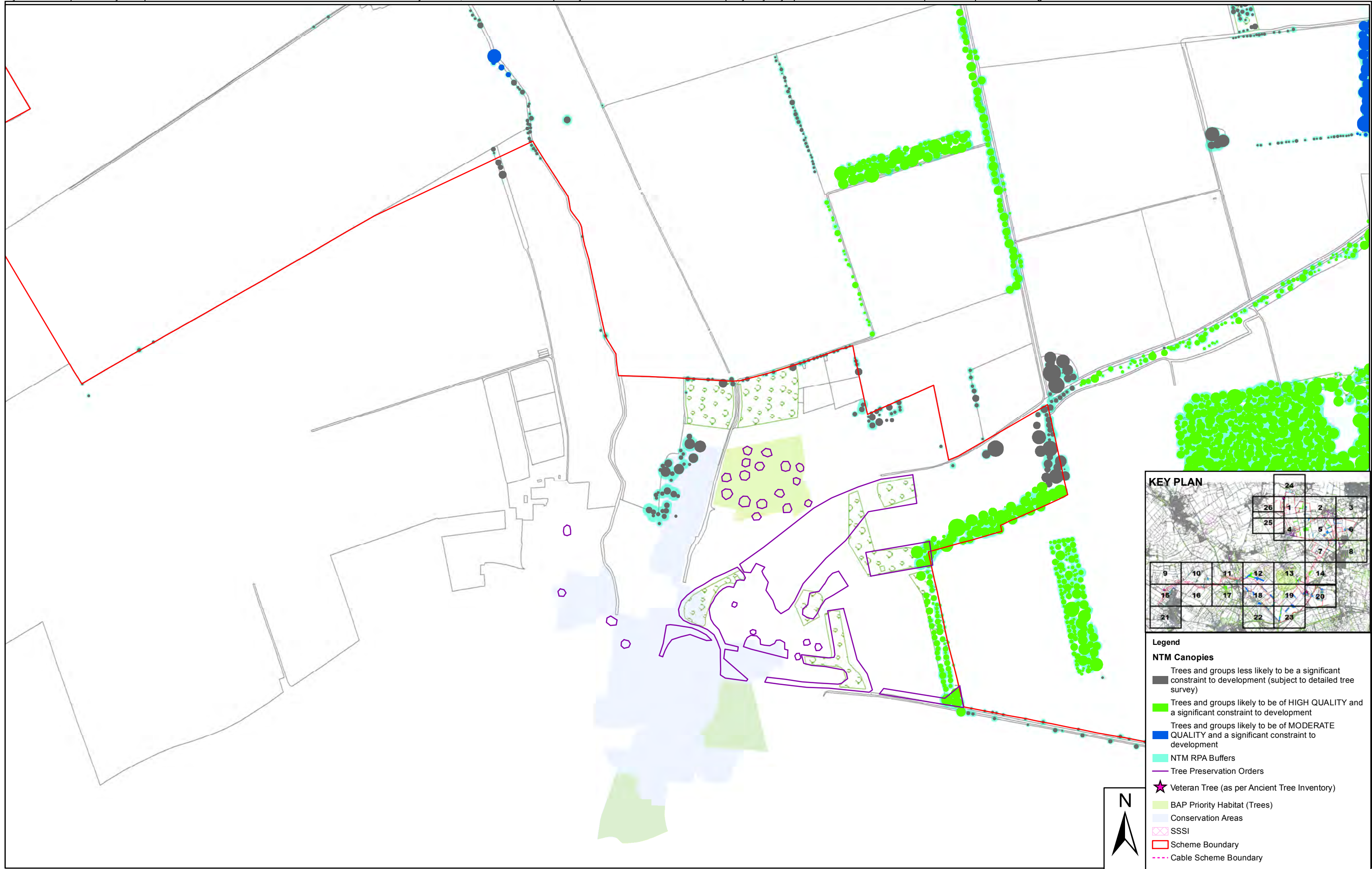
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**Legend**

**NTM Canopies**

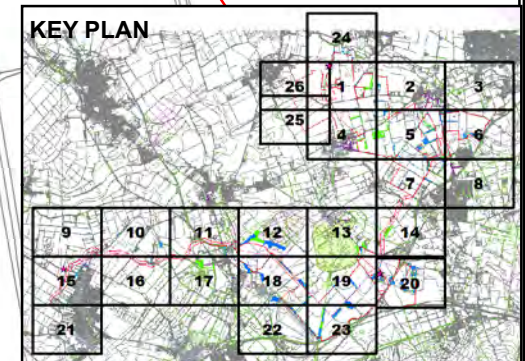
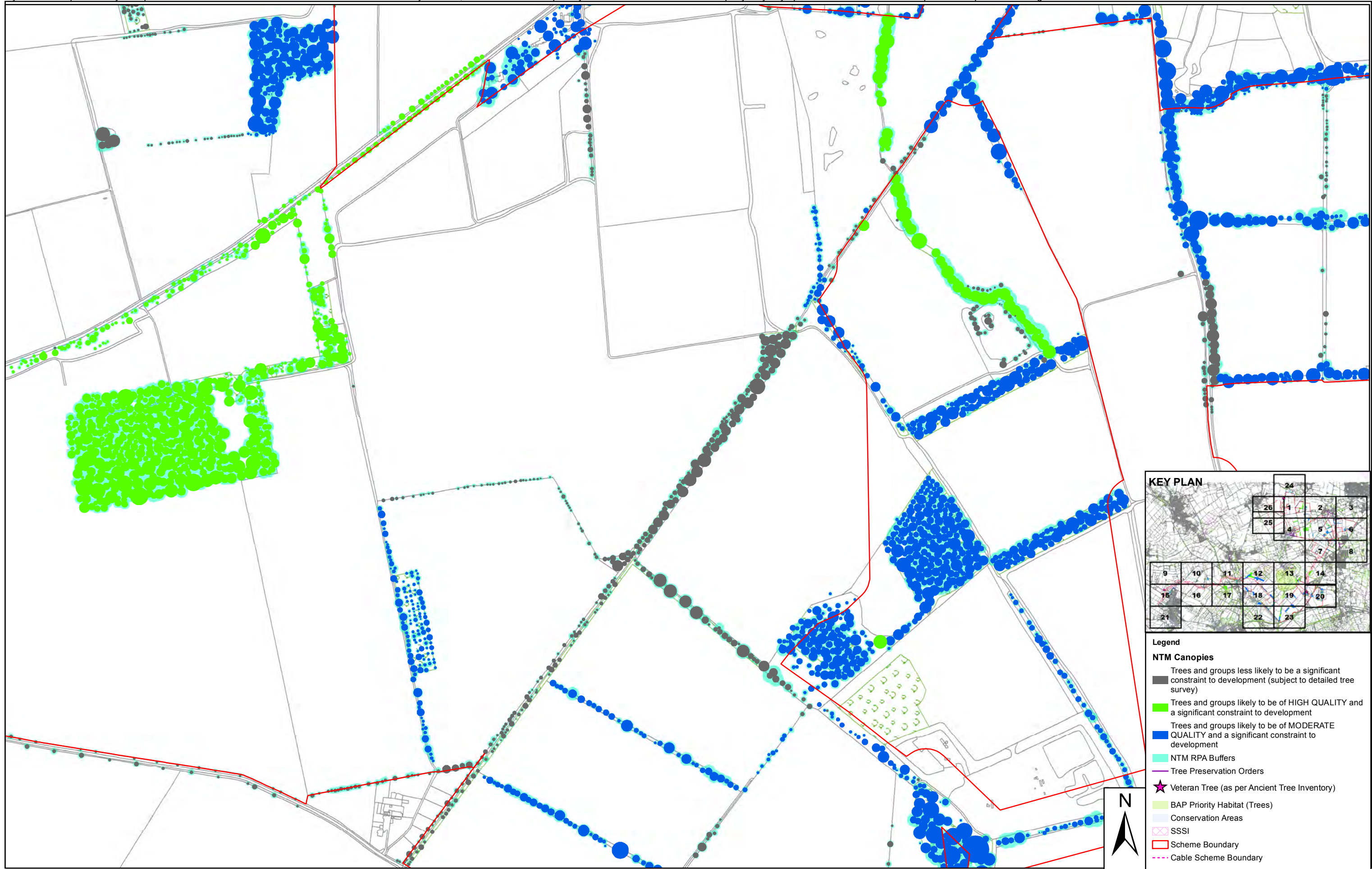
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- Blue circle: Trees and groups likely to be of MODERATE QUALITY and a significant constraint to development
- Cyan line: NTM RPA Buffers
- Purple line: Tree Preservation Orders
- Pink star: Veteran Tree (as per Ancient Tree Inventory)
- Light green area: BAP Priority Habitat (Trees)
- Light blue area: Conservation Areas
- Pink hatched area: SSSI
- Red line: Scheme Boundary
- Dashed red line: Cable Scheme Boundary

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Title:	High Level Tree Constraints Plan Sheet 4 of 26
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**Legend**

**NTM Canopies**

- Grey circle: Trees and groups less likely to be a significant constraint to development (subject to detailed tree survey)
- Green circle: Trees and groups likely to be of HIGH QUALITY and a significant constraint to development
- Blue circle: Trees and groups likely to be of MODERATE QUALITY and a significant constraint to development
- Cyan line: NTM RPA Buffers
- Purple line: Tree Preservation Orders
- Star: Veteran Tree (as per Ancient Tree Inventory)
- Light green area: BAP Priority Habitat (Trees)
- Light blue area: Conservation Areas
- Light pink area: SSSI
- Red line: Scheme Boundary
- Dotted red line: Cable Scheme Boundary

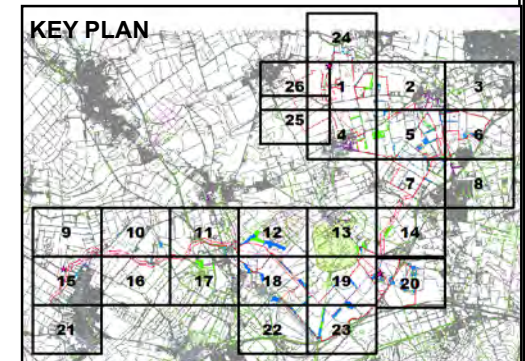
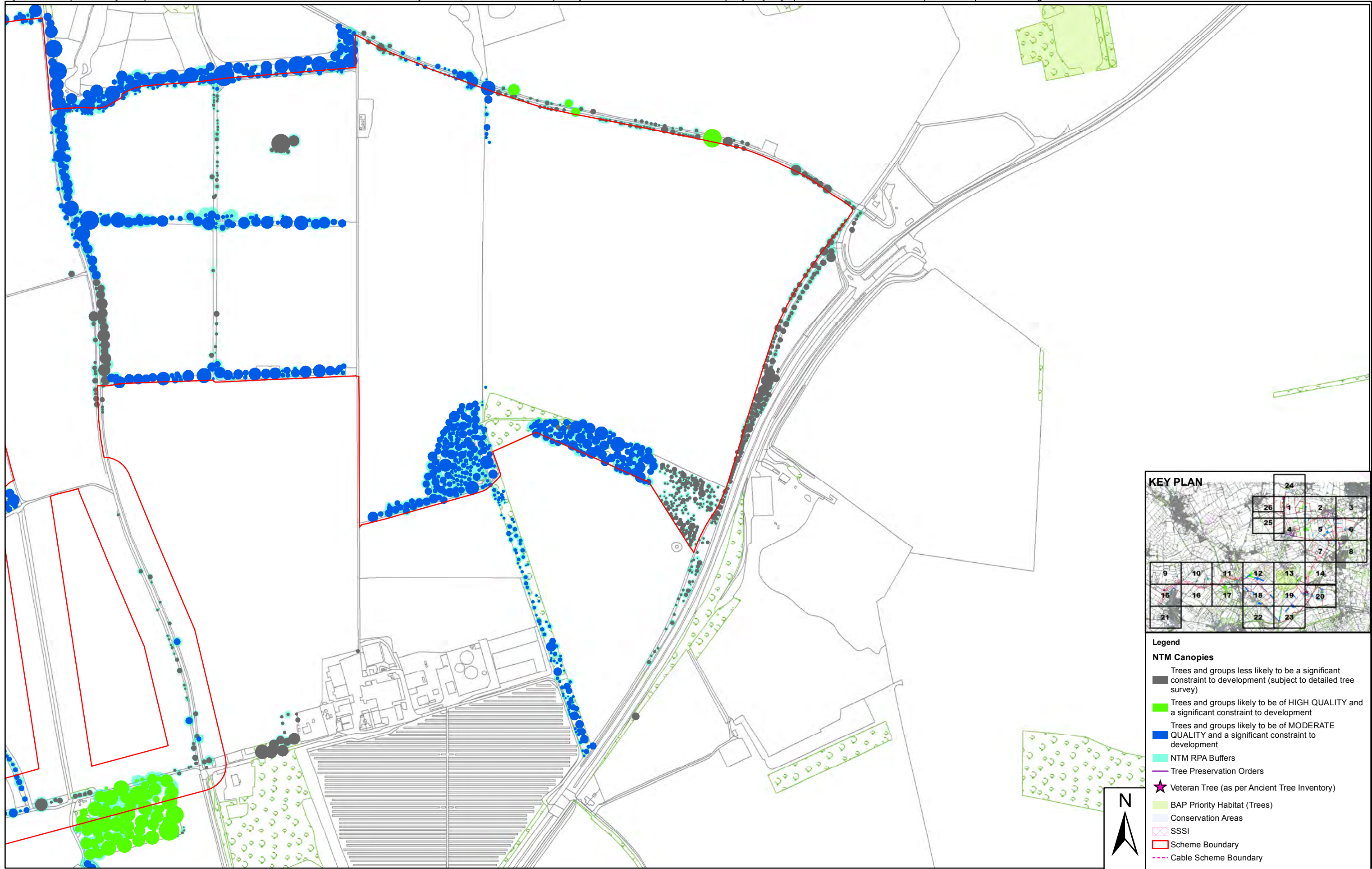
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**Legend**

**NTM Canopies**

- Grey circle: Trees and groups less likely to be a significant constraint to development (subject to detailed tree survey)
- Green circle: Trees and groups likely to be of HIGH QUALITY and a significant constraint to development
- Blue circle: Trees and groups likely to be of MODERATE QUALITY and a significant constraint to development
- Light blue area: NTM RPA Buffers
- Purple line: Tree Preservation Orders
- Star symbol: Veteran Tree (as per Ancient Tree Inventory)
- Light green area: BAP Priority Habitat (Trees)
- Light blue area: Conservation Areas
- Red hatched area: SSSI
- Red outline: Scheme Boundary
- Dashed red line: Cable Scheme Boundary

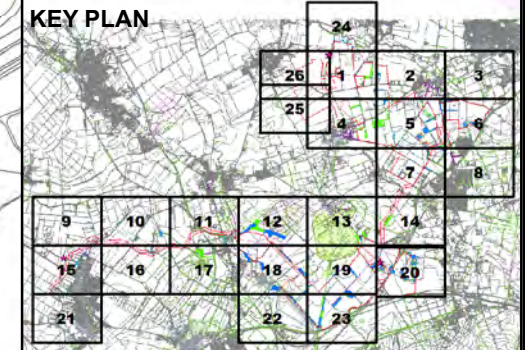
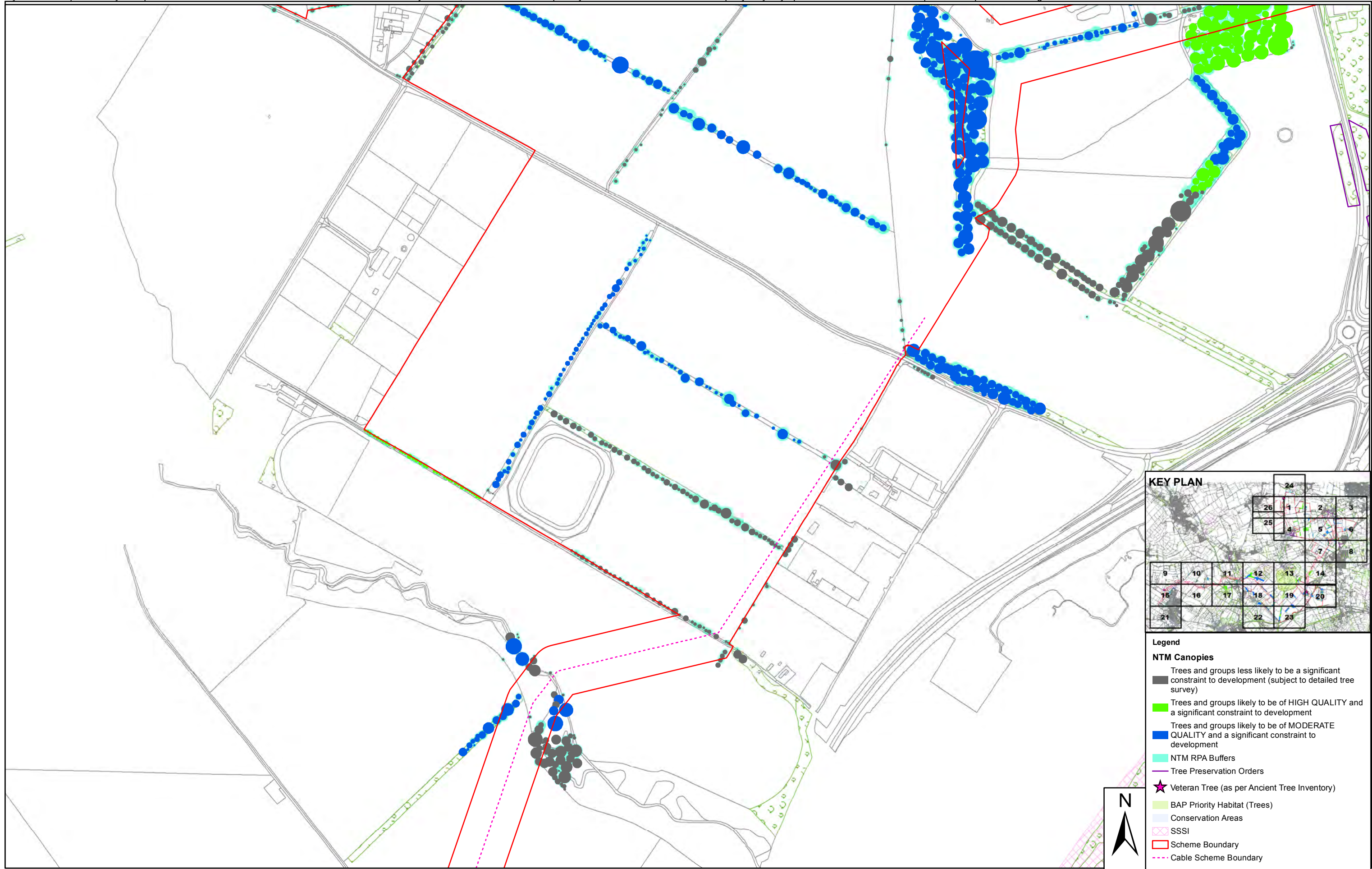
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Title:	High Level Tree Constraints Plan Sheet 6 of 26
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- NTM RPA Buffers
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- ★ Veteran Tree (as per Ancient Tree Inventory)
- BAP Priority Habitat (Trees)
- Conservation Areas
- SSSI
- Scheme Boundary
- Cable Scheme Boundary



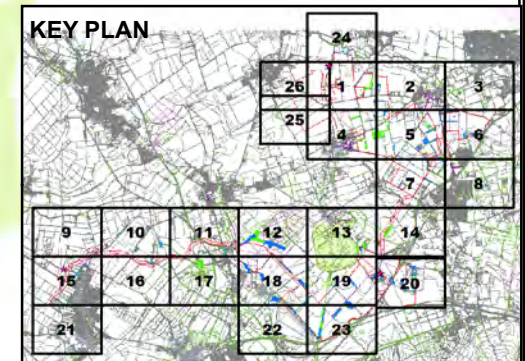
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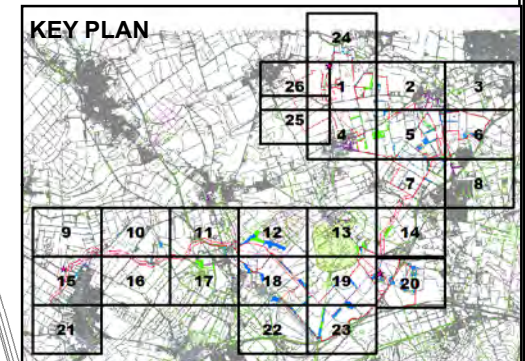
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- Trees and groups likely to be of MODERATE QUALITY and a significant constraint to development
- NTM RPA Buffers
- Tree Preservation Orders
- ★ Veteran Tree (as per Ancient Tree Inventory)
- BAP Priority Habitat (Trees)
- Conservation Areas
- SSSI
- Scheme Boundary
- Cable Scheme Boundary

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Title:	High Level Tree Constraints Plan Sheet 8 of 26
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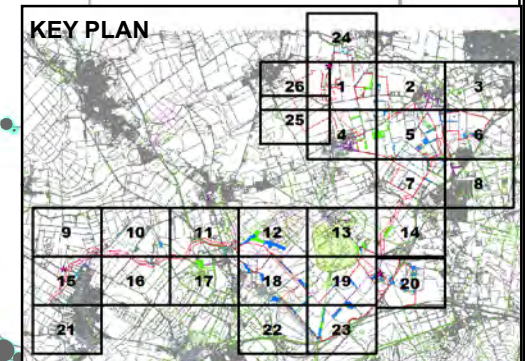
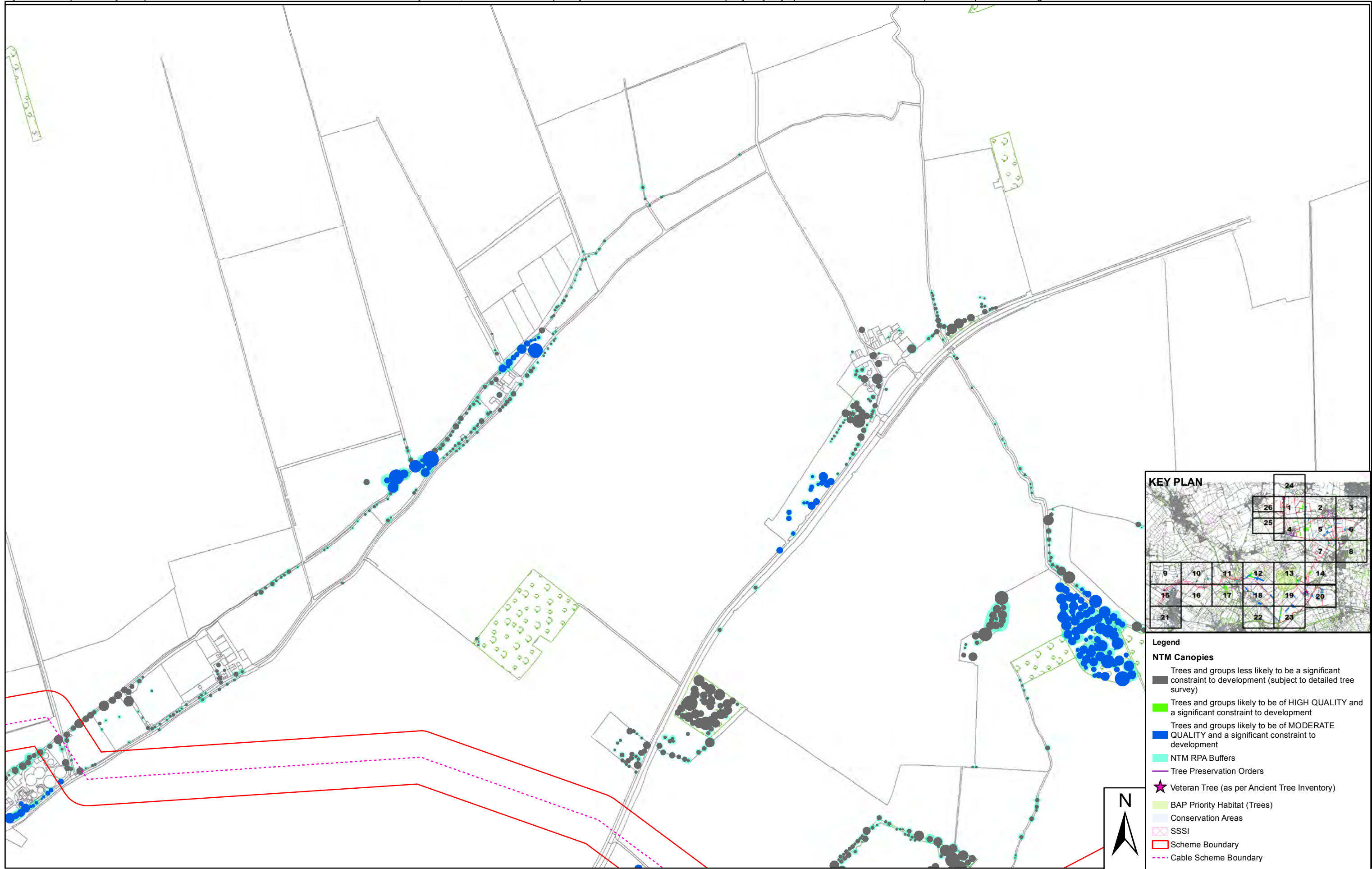
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**NTM Canopies**

- Trees and groups less likely to be a significant constraint to development (subject to detailed tree survey)
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- Trees and groups likely to be of MODERATE QUALITY and a significant constraint to development
- NTM RPA Buffers
- Tree Preservation Orders
- ★ Veteran Tree (as per Ancient Tree Inventory)
- BAP Priority Habitat (Trees)
- Conservation Areas
- SSSI
- Scheme Boundary
- Cable Scheme Boundary

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NTM RPA Buffers

Tree Preservation Orders

★ Veteran Tree (as per Ancient Tree Inventory)

BAP Priority Habitat (Trees)

Conservation Areas

SSSI

Scheme Boundary

Cable Scheme Boundary



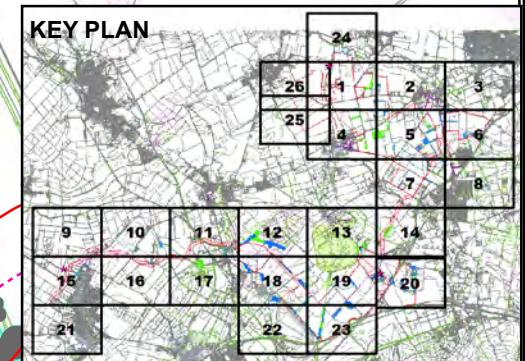
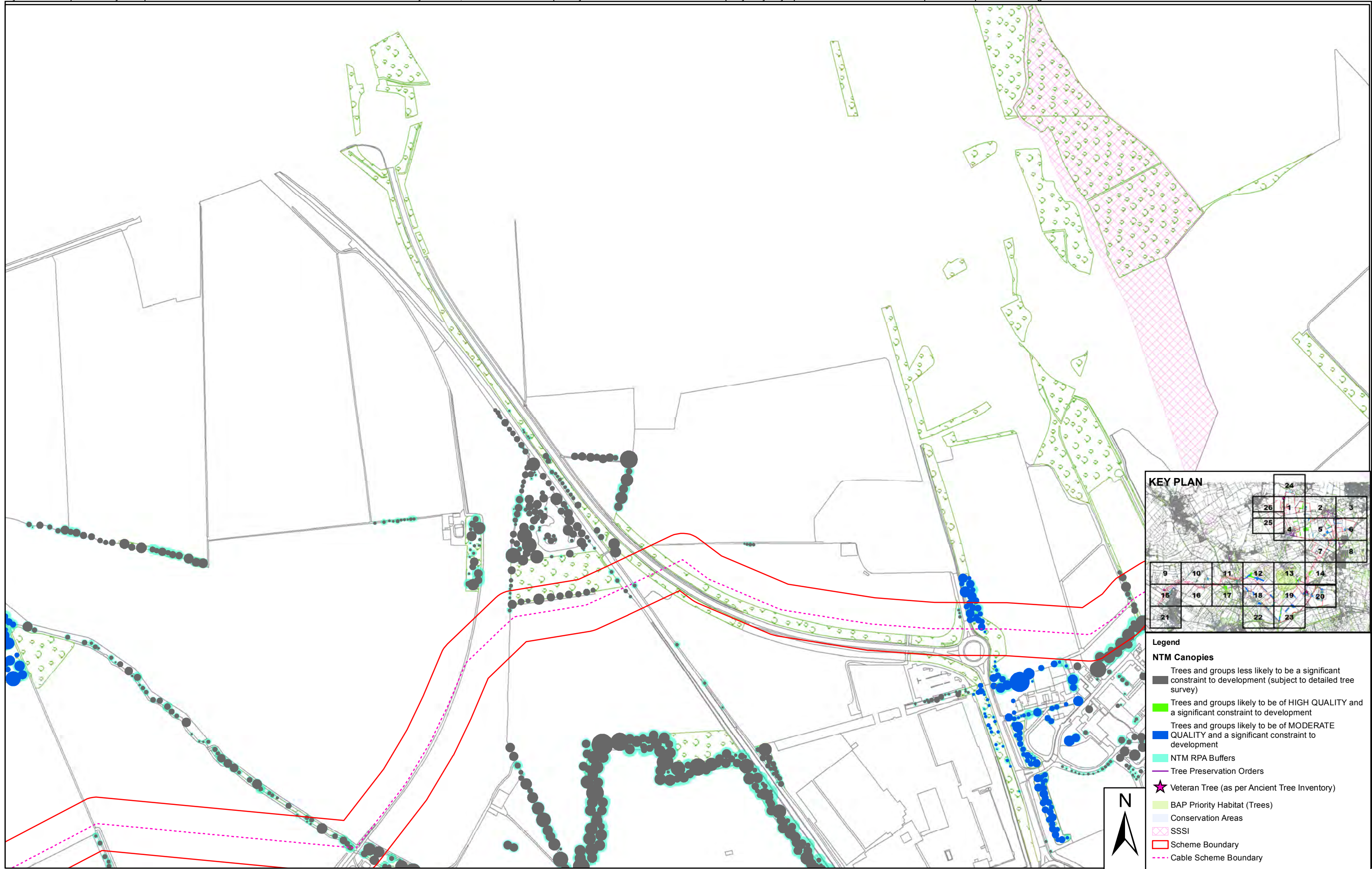
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Project:	Sunnica Energy Farm

Title:	High Level Tree Constraints Plan Sheet 10 of 26
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**Legend**

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- NTM RPA Buffers
- Tree Preservation Orders
- ★ Veteran Tree (as per Ancient Tree Inventory)
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- Conservation Areas
- SSSI
- Scheme Boundary
- Cable Scheme Boundary

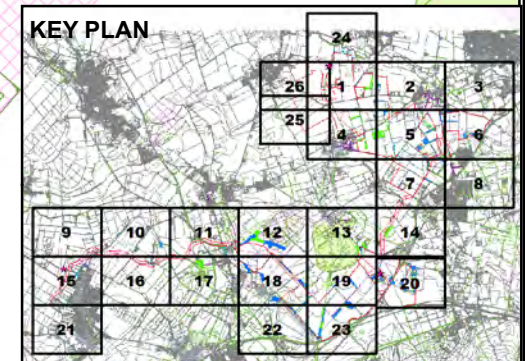
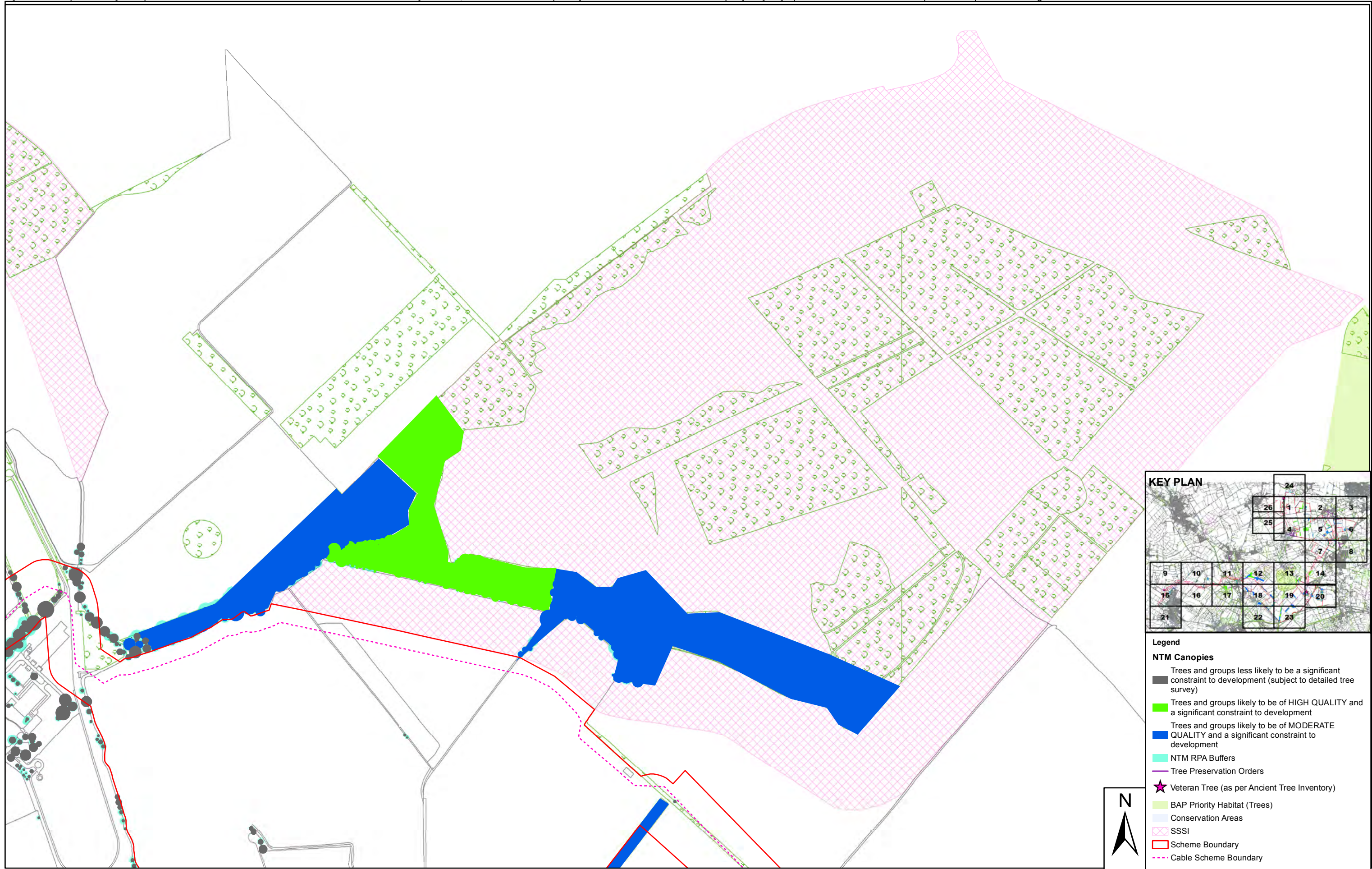
Client:	Sunnica Ltd
Project:	Sunnica Energy Farm

Title:	High Level Tree Constraints Plan Sheet 11 of 26
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Drawn:	CC	Checked:	AW
Verified:	MR	Approved:	AK
Date:	OCTOBER 2019	Scale at A3:	1:6,450
Drawing Number:	60589004_TREE_0011		A3



**Legend**

**NTM Canopies**

- Trees and groups less likely to be a significant constraint to development (subject to detailed tree survey)
- Trees and groups likely to be of HIGH QUALITY and a significant constraint to development
- Trees and groups likely to be of MODERATE QUALITY and a significant constraint to development
- NTM RPA Buffers
- Tree Preservation Orders
- ★ Veteran Tree (as per Ancient Tree Inventory)
- BAP Priority Habitat (Trees)
- Conservation Areas
- SSSI
- Scheme Boundary
- Cable Scheme Boundary



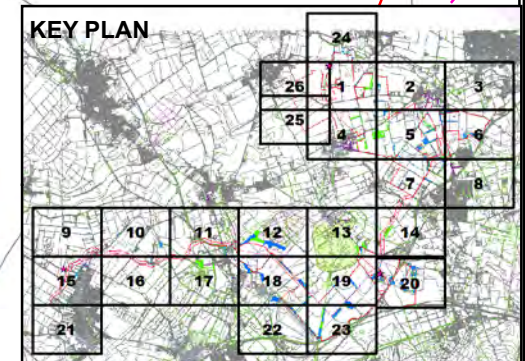
Client:	Sunnica Ltd
Project:	Sunnica Energy Farm

Title:	High Level Tree Constraints Plan Sheet 12 of 26
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Drawn:	CC	Checked:	AW
Verified:	MR	Approved:	AK
Date:	OCTOBER 2019	Scale at A3:	1:6,450
Drawing Number:	60589004_TREE_0012		A3



**Legend**

**NTM Canopies**

- Grey circle: Trees and groups less likely to be a significant constraint to development (subject to detailed tree survey)
- Green circle: Trees and groups likely to be of HIGH QUALITY and a significant constraint to development
- Blue circle: Trees and groups likely to be of MODERATE QUALITY and a significant constraint to development

- Light green area: NTM RPA Buffers
- Purple line: Tree Preservation Orders
- Star symbol: Veteran Tree (as per Ancient Tree Inventory)
- Light green area: BAP Priority Habitat (Trees)
- Blue area: Conservation Areas
- Pink hatched area: SSSI
- Red line: Scheme Boundary
- Dashed red line: Cable Scheme Boundary

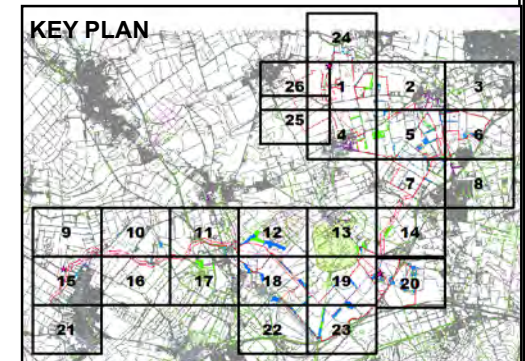
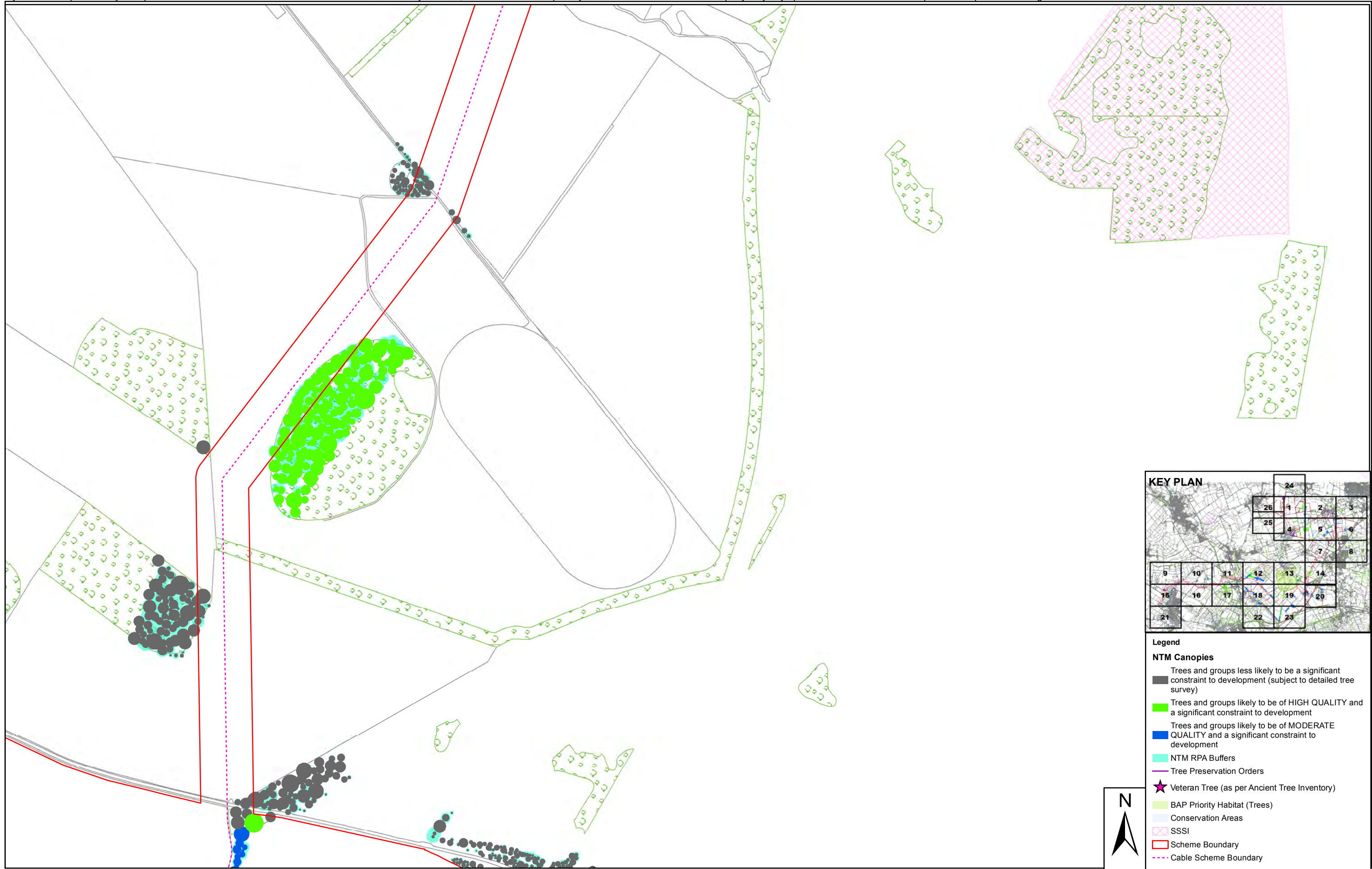
Client:	Sunnica Ltd
Project:	Sunnica Energy Farm

Title:	High Level Tree Constraints Plan Sheet 13 of 26
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Drawn:	CC	Checked:	AW
Verified:	MR	Approved:	AK
Date:	OCTOBER 2019	Scale at A3:	1:6,450
Drawing Number:	60589004_TREE_0013		A3



**Legend**

**NTM Canopies**

- Trees and groups less likely to be a significant constraint to development (subject to detailed tree survey)
- Trees and groups likely to be of HIGH QUALITY and a significant constraint to development
- Trees and groups likely to be of MODERATE QUALITY and a significant constraint to development

- NTM RPA Buffers
- Tree Preservation Orders
- Veteran Tree (as per Ancient Tree Inventory)
- BAP Priority Habitat (Trees)
- Conservation Areas
- SSSI
- Scheme Boundary
- Cable Scheme Boundary

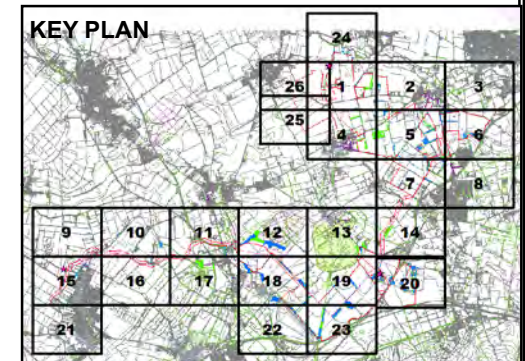
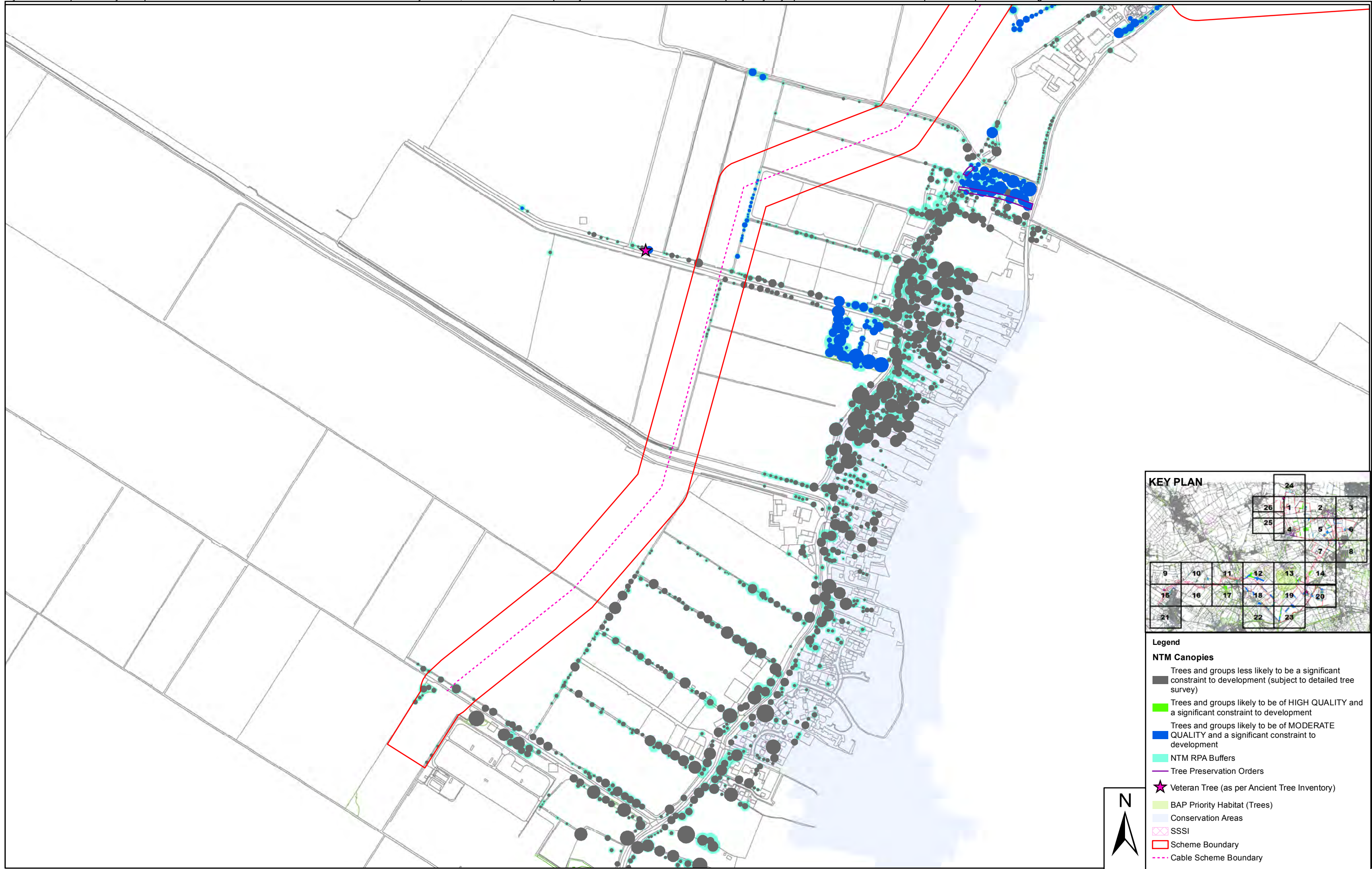
Client:	Sunnica Ltd
Project:	Sunnica Energy Farm

Title:	High Level Tree Constraints Plan Sheet 14 of 26
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Drawn:	CC	Checked:	AW
Verified:	MR	Approved:	AK
Date:	OCTOBER 2019	Scale at A3:	1:6,450
Drawing Number:	60589004_TREE_0014		A3



**Legend**

**NTM Canopies**

- Trees and groups less likely to be a significant constraint to development (subject to detailed tree survey)
- Trees and groups likely to be of HIGH QUALITY and a significant constraint to development
- Trees and groups likely to be of MODERATE QUALITY and a significant constraint to development
- NTM RPA Buffers
- Tree Preservation Orders
- ★ Veteran Tree (as per Ancient Tree Inventory)
- BAP Priority Habitat (Trees)
- Conservation Areas
- SSSI
- Scheme Boundary
- Cable Scheme Boundary

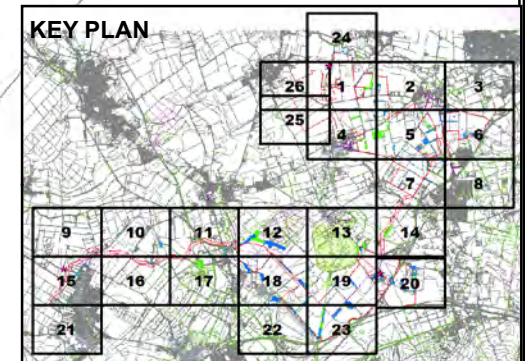
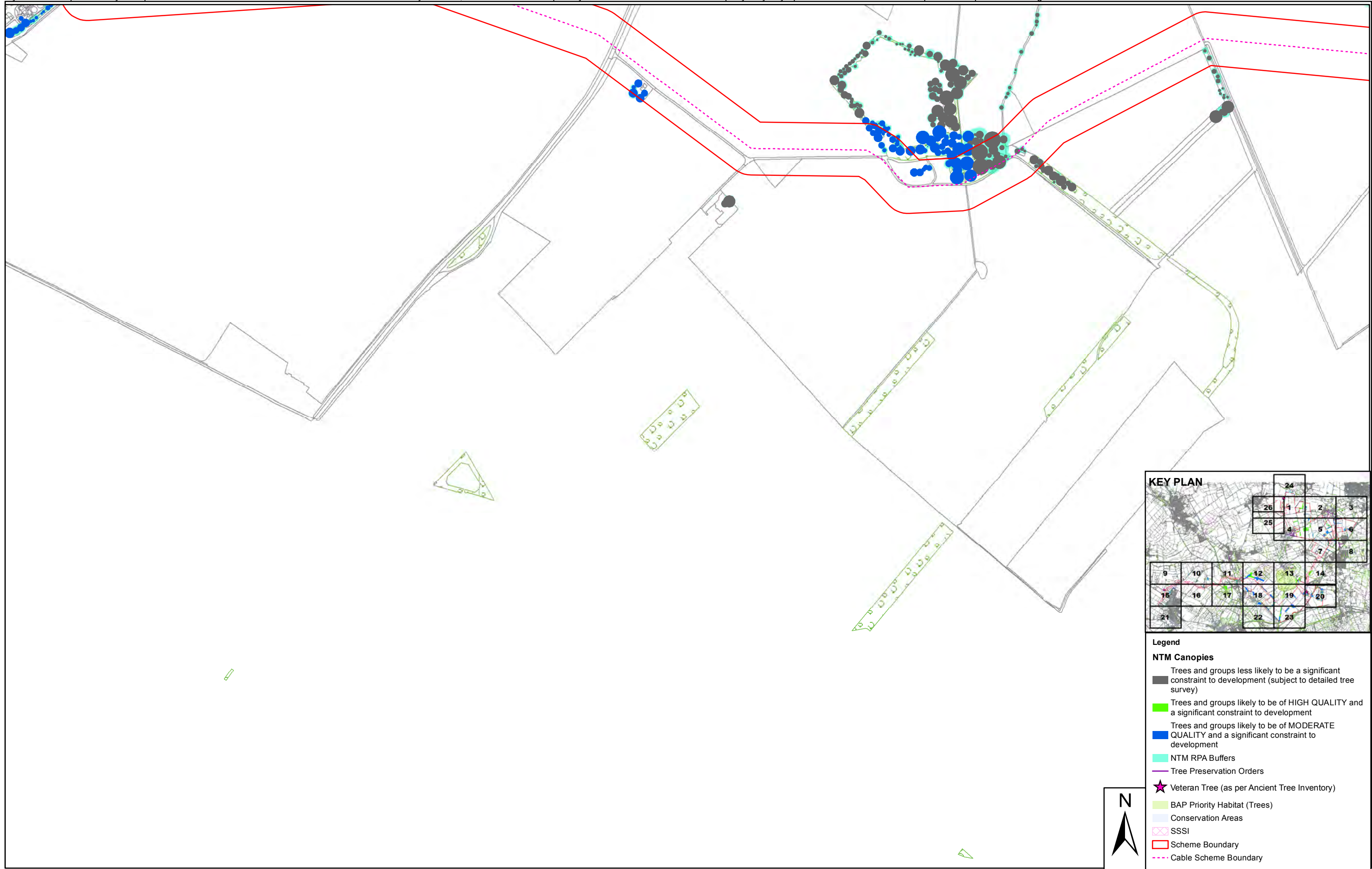
Client:	Sunnica Ltd
Project:	Sunnica Energy Farm

Title:	High Level Tree Constraints Plan Sheet 15 of 26
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Drawn:	CC	Checked:	AW
Verified:	MR	Approved:	AK
Date:	OCTOBER 2019	Scale at A3:	1:6,450
Drawing Number: 60589004_TREE_0015			A3



**Legend**

**NTM Canopies**

- Trees and groups less likely to be a significant constraint to development (subject to detailed tree survey)
- Trees and groups likely to be of HIGH QUALITY and a significant constraint to development
- Trees and groups likely to be of MODERATE QUALITY and a significant constraint to development
- NTM RPA Buffers
- Tree Preservation Orders
- ★ Veteran Tree (as per Ancient Tree Inventory)
- BAP Priority Habitat (Trees)
- Conservation Areas
- SSSI
- Scheme Boundary
- Cable Scheme Boundary



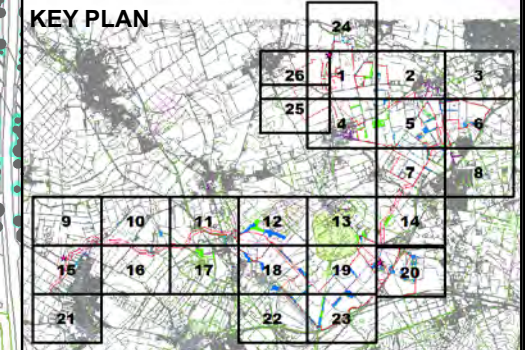
Client:	Sunnica Ltd
Project:	Sunnica Energy Farm

Title:	High Level Tree Constraints Plan Sheet 16 of 26
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Drawn:	CC	Checked:	AW
Verified:	MR	Approved:	AK
Date:	OCTOBER 2019	Scale at A3:	1:6,450
Drawing Number:	60589004_TREE_0016		A3



**Legend**

**NTM Canopies**

- Trees and groups less likely to be a significant constraint to development (subject to detailed tree survey)
- Trees and groups likely to be of HIGH QUALITY and a significant constraint to development
- Trees and groups likely to be of MODERATE QUALITY and a significant constraint to development
- NTM RPA Buffers
- Tree Preservation Orders
- ★ Veteran Tree (as per Ancient Tree Inventory)
- BAP Priority Habitat (Trees)
- Conservation Areas
- SSSI
- Scheme Boundary
- Cable Scheme Boundary



Client:	Sunnica Ltd
Project:	Sunnica Energy Farm

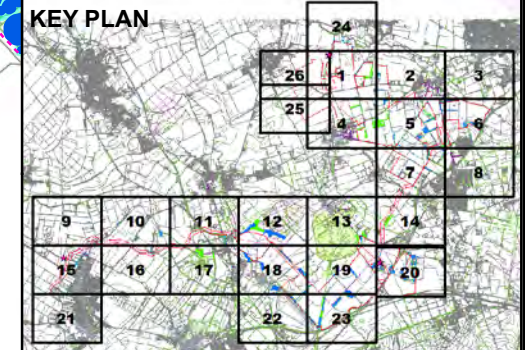
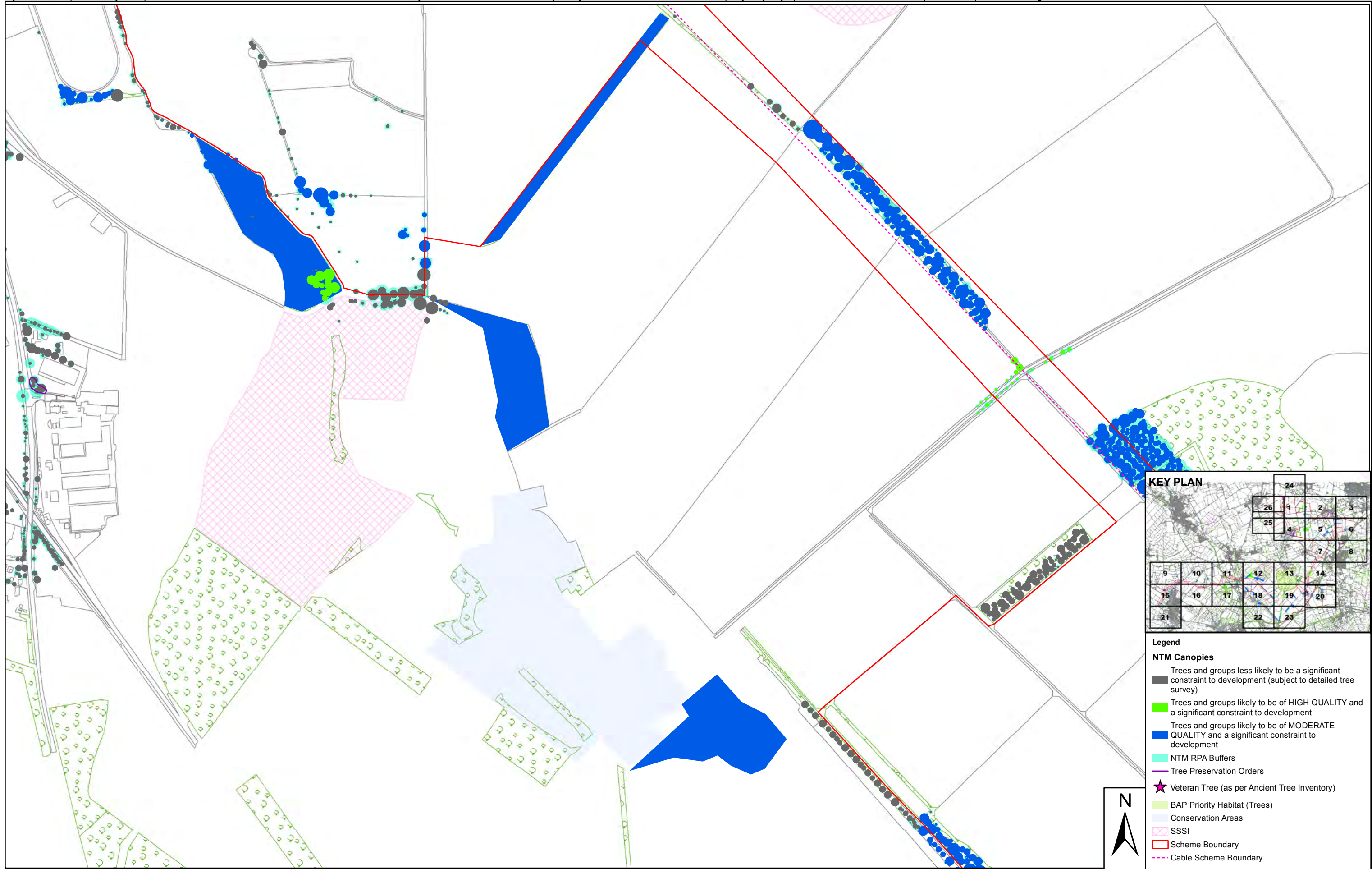
Title:	High Level Tree Constraints Plan Sheet 17 of 26
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Drawn:	CC	Checked:	AW
Verified:	MR	Approved:	AK
Date:	OCTOBER 2019	Scale at A3:	1:6,450
Drawing Number:	60589004_TREE_0017		A3





**Legend**

**NTM Canopies**

- Trees and groups less likely to be a significant constraint to development (subject to detailed tree survey)
- Trees and groups likely to be of HIGH QUALITY and a significant constraint to development
- Trees and groups likely to be of MODERATE QUALITY and a significant constraint to development
- NTM RPA Buffers
- Tree Preservation Orders
- ★ Veteran Tree (as per Ancient Tree Inventory)
- BAP Priority Habitat (Trees)
- Conservation Areas
- SSSI
- Scheme Boundary
- Cable Scheme Boundary



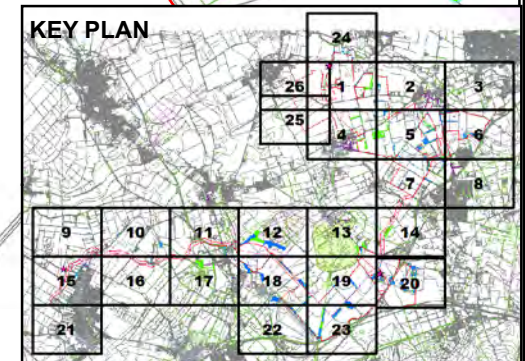
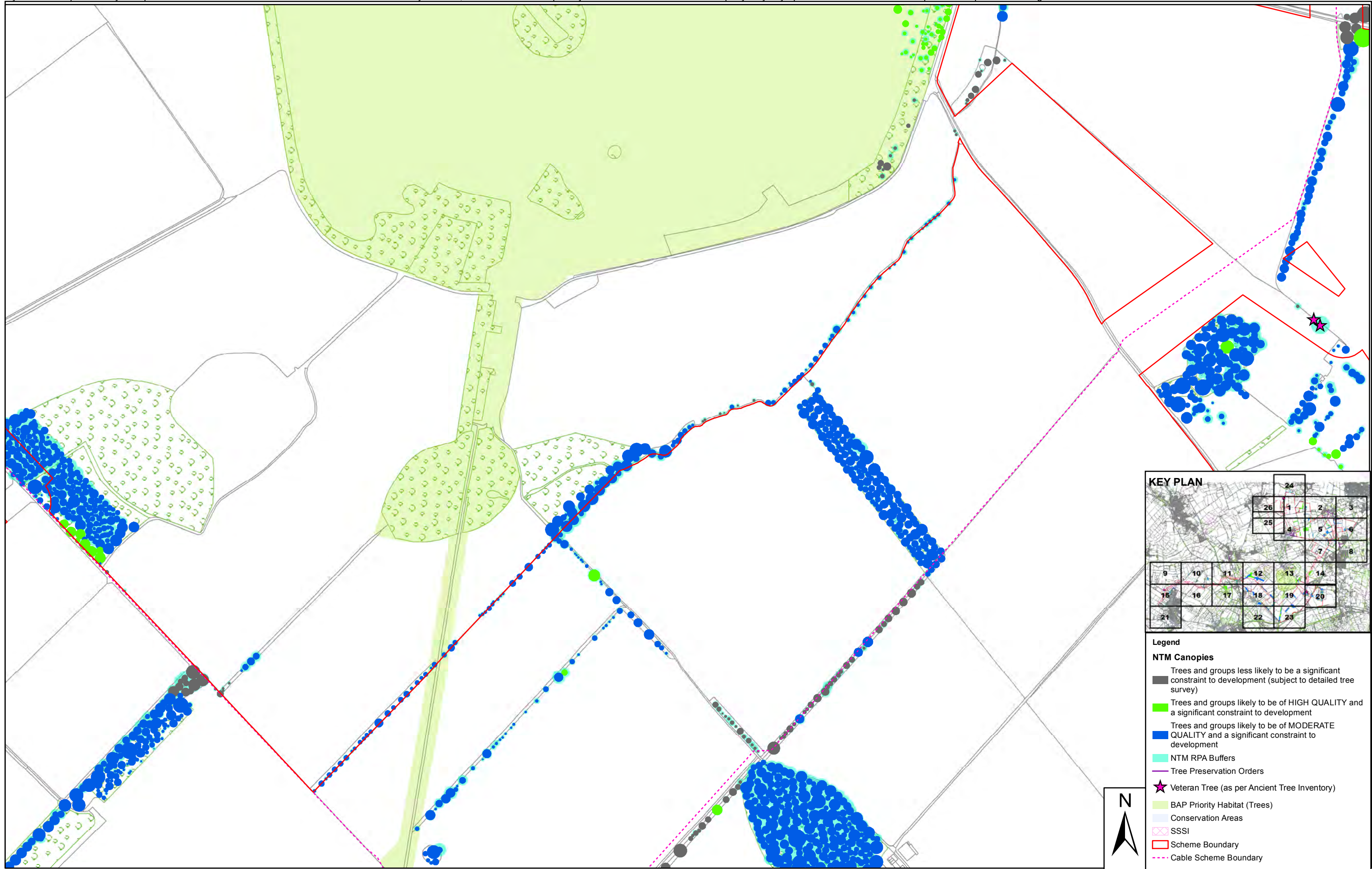
Client:	Sunnica Ltd
Project:	Sunnica Energy Farm

Title:	High Level Tree Constraints Plan Sheet 18 of 26
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Drawn:	CC	Checked:	AW
Verified:	MR	Approved:	AK
Date:	OCTOBER 2019	Scale at A3:	1:6,450
Drawing Number:	60589004_TREE_0018		A3



**Legend**

**NTM Canopies**

- Trees and groups less likely to be a significant constraint to development (subject to detailed tree survey)
- Trees and groups likely to be of HIGH QUALITY and a significant constraint to development
- Trees and groups likely to be of MODERATE QUALITY and a significant constraint to development
- NTM RPA Buffers
- Tree Preservation Orders
- ★ Veteran Tree (as per Ancient Tree Inventory)
- BAP Priority Habitat (Trees)
- Conservation Areas
- SSSI
- Scheme Boundary
- Cable Scheme Boundary

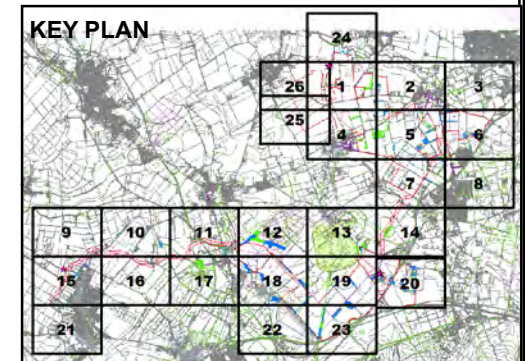
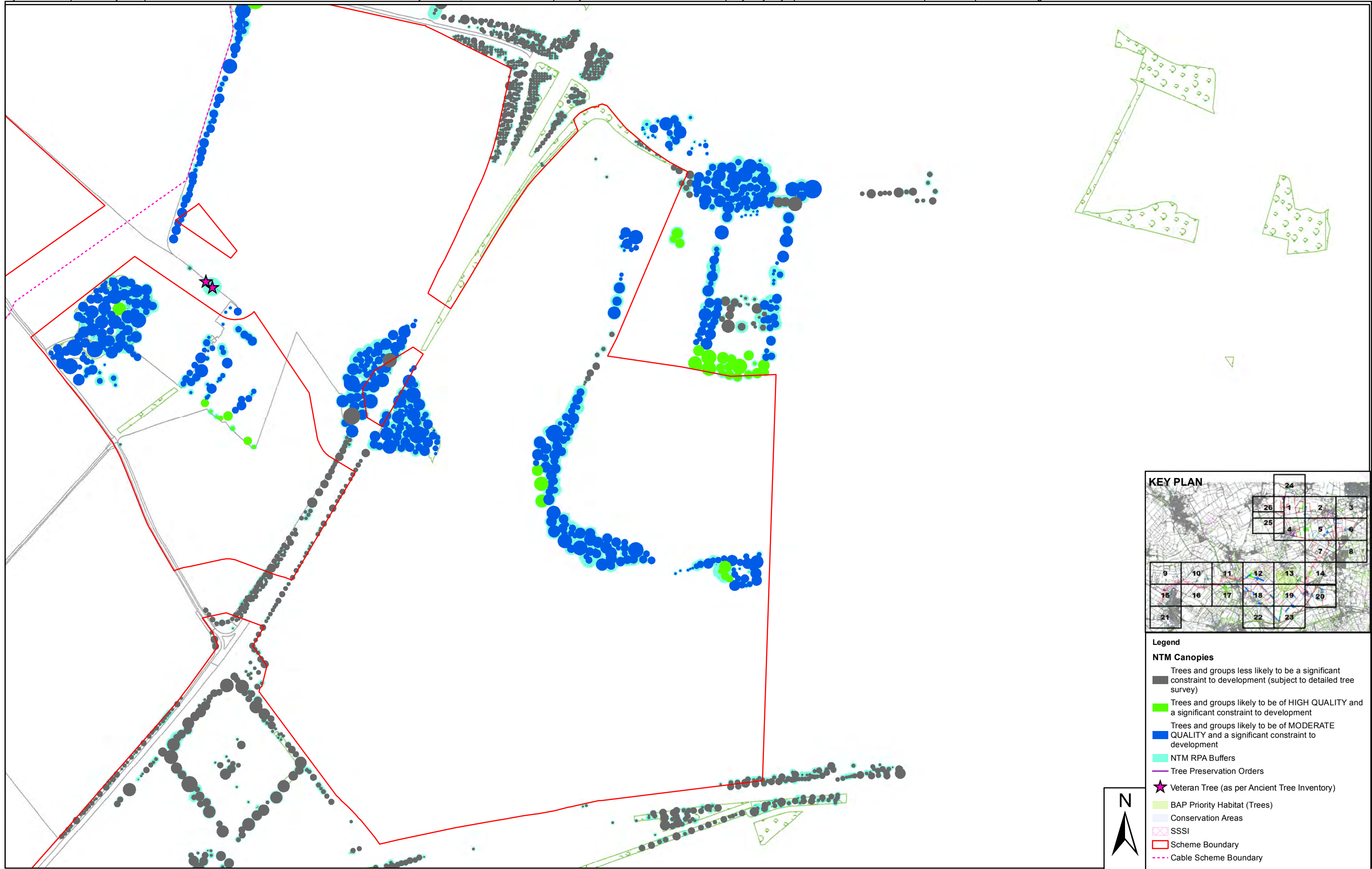
Client:	Sunnica Ltd
Project:	Sunnica Energy Farm

Title:	High Level Tree Constraints Plan Sheet 19 of 26
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Drawn:	CC	Checked:	AW
Verified:	MR	Approved:	AK
Date:	OCTOBER 2019	Scale at A3:	1:6,450
Drawing Number:	60589004_TREE_0019		A3



**Legend**

**NTM Canopies**

- Grey circle: Trees and groups less likely to be a significant constraint to development (subject to detailed tree survey)
- Green circle: Trees and groups likely to be of HIGH QUALITY and a significant constraint to development
- Blue circle: Trees and groups likely to be of MODERATE QUALITY and a significant constraint to development
- Cyan line: NTM RPA Buffers
- Purple line: Tree Preservation Orders
- Pink star: Veteran Tree (as per Ancient Tree Inventory)
- Light green area: BAP Priority Habitat (Trees)
- Light blue area: Conservation Areas
- Pink hatched area: SSSI
- Red outline: Scheme Boundary
- Pink dashed outline: Cable Scheme Boundary



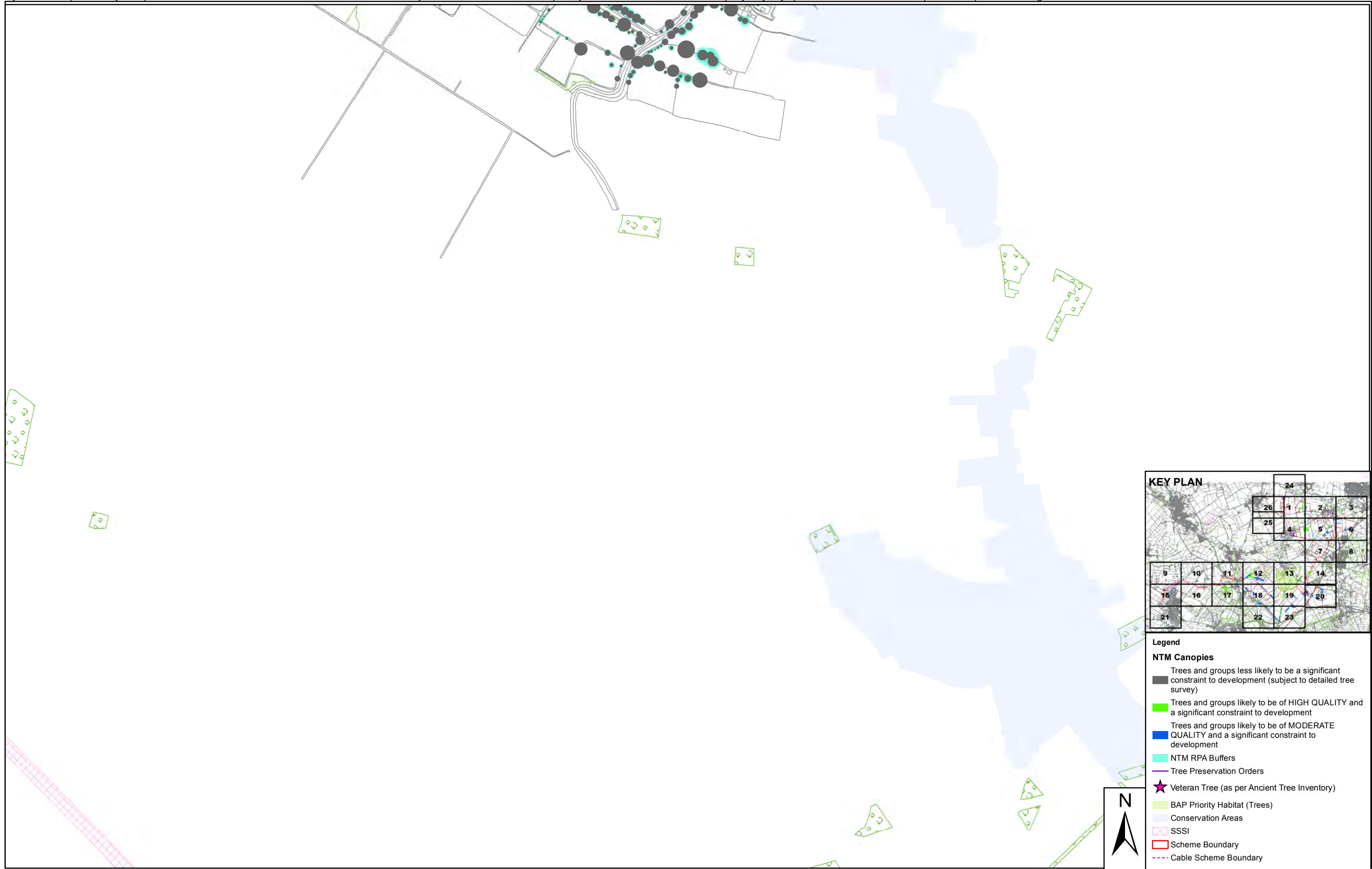
Client:	Sunnica Ltd
Project:	Sunnica Energy Farm

Title:	High Level Tree Constraints Plan Sheet 20 of 26
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Drawn:	CC	Checked:	AW
Verified:	MR	Approved:	AK
Date:	OCTOBER 2019	Scale at A3:	1:6,450
Drawing Number:	60589004_TREE_0020		A3



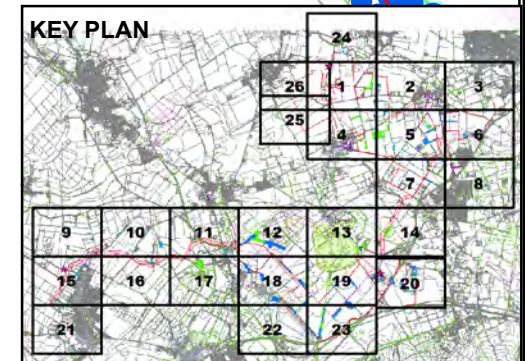
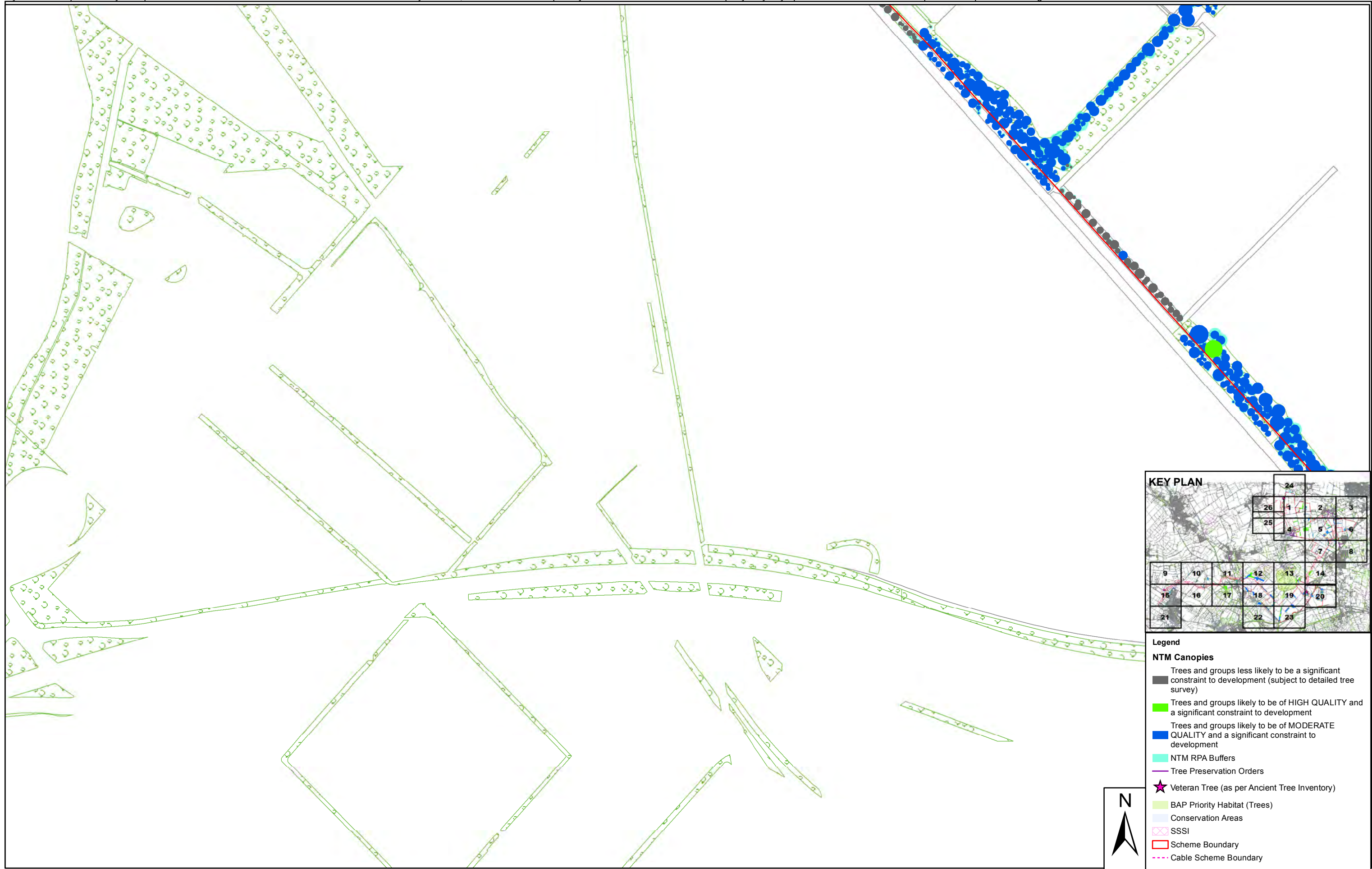
Client:	Sunnica Ltd
Project:	Sunnica Energy Farm

Title:	High Level Tree Constraints Plan Sheet 21 of 26
--------	--

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Drawn:	CC	Checked:	AW
Verified:	MR	Approved:	AK
Date:	OCTOBER 2019	Scale at A3:	1:6,450
Drawing Number: 60589004_TREE_0021			A3



**Legend**

**NTM Canopies**

- Grey square: Trees and groups less likely to be a significant constraint to development (subject to detailed tree survey)
- Green square: Trees and groups likely to be of HIGH QUALITY and a significant constraint to development
- Blue square: Trees and groups likely to be of MODERATE QUALITY and a significant constraint to development
- Cyan square: NTM RPA Buffers
- Purple line: Tree Preservation Orders
- Star symbol: Veteran Tree (as per Ancient Tree Inventory)
- Light green square: BAP Priority Habitat (Trees)
- Light blue square: Conservation Areas
- White square with red border: SSSI
- Red outline: Scheme Boundary
- Dashed red outline: Cable Scheme Boundary



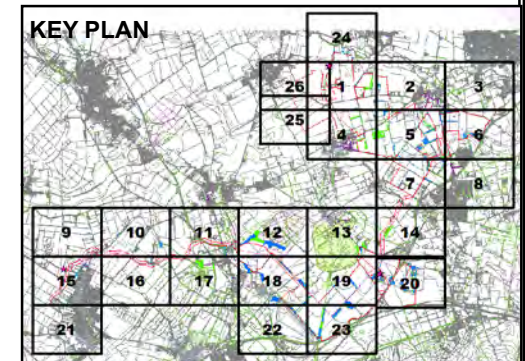
Client:	Sunnica Ltd
Project:	Sunnica Energy Farm

Title:	High Level Tree Constraints Plan Sheet 22 of 26
--------	--

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Drawn:	CC	Checked:	AW
Verified:	MR	Approved:	AK
Date:	OCTOBER 2019	Scale at A3:	1:6,450
Drawing Number:	60589004_TREE_0022		A3



**Legend**

**NTM Canopies**

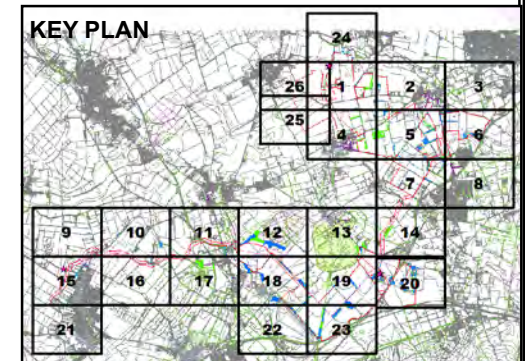
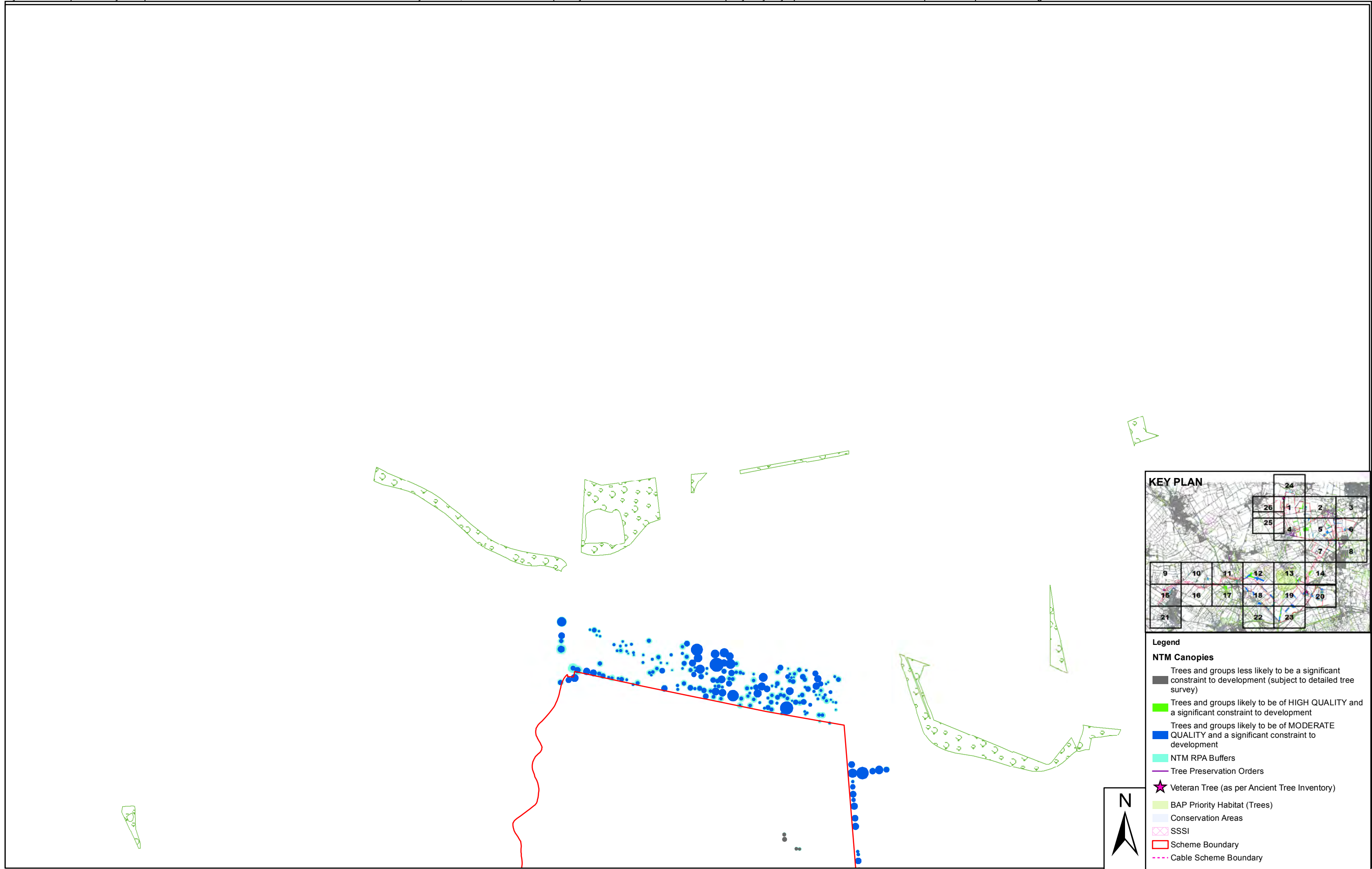
- Trees and groups less likely to be a significant constraint to development (subject to detailed tree survey)
- Trees and groups likely to be of HIGH QUALITY and a significant constraint to development
- Trees and groups likely to be of MODERATE QUALITY and a significant constraint to development
- NTM RPA Buffers
- Tree Preservation Orders
- ★ Veteran Tree (as per Ancient Tree Inventory)
- BAP Priority Habitat (Trees)
- Conservation Areas
- SSSI
- Scheme Boundary
- Cable Scheme Boundary

Client:	Sunnica Ltd
Project:	Sunnica Energy Farm

Title:	High Level Tree Constraints Plan Sheet 23 of 26
--------	--

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Drawn:	CC	Checked:	AW
Verified:	MR	Approved:	AK
Date:	OCTOBER 2019	Scale at A3:	1:6,450
Drawing Number:	60589004_TREE_0023		A3



**Legend**

**NTM Canopies**

- Trees and groups less likely to be a significant constraint to development (subject to detailed tree survey)
- Trees and groups likely to be of HIGH QUALITY and a significant constraint to development
- Trees and groups likely to be of MODERATE QUALITY and a significant constraint to development

- NTM RPA Buffers
- Tree Preservation Orders
- Veteran Tree (as per Ancient Tree Inventory)
- BAP Priority Habitat (Trees)
- Conservation Areas
- SSSI
- Scheme Boundary
- Cable Scheme Boundary

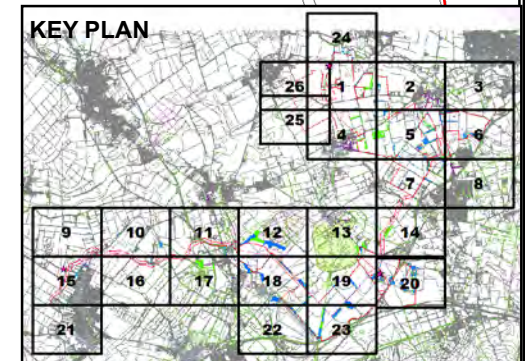
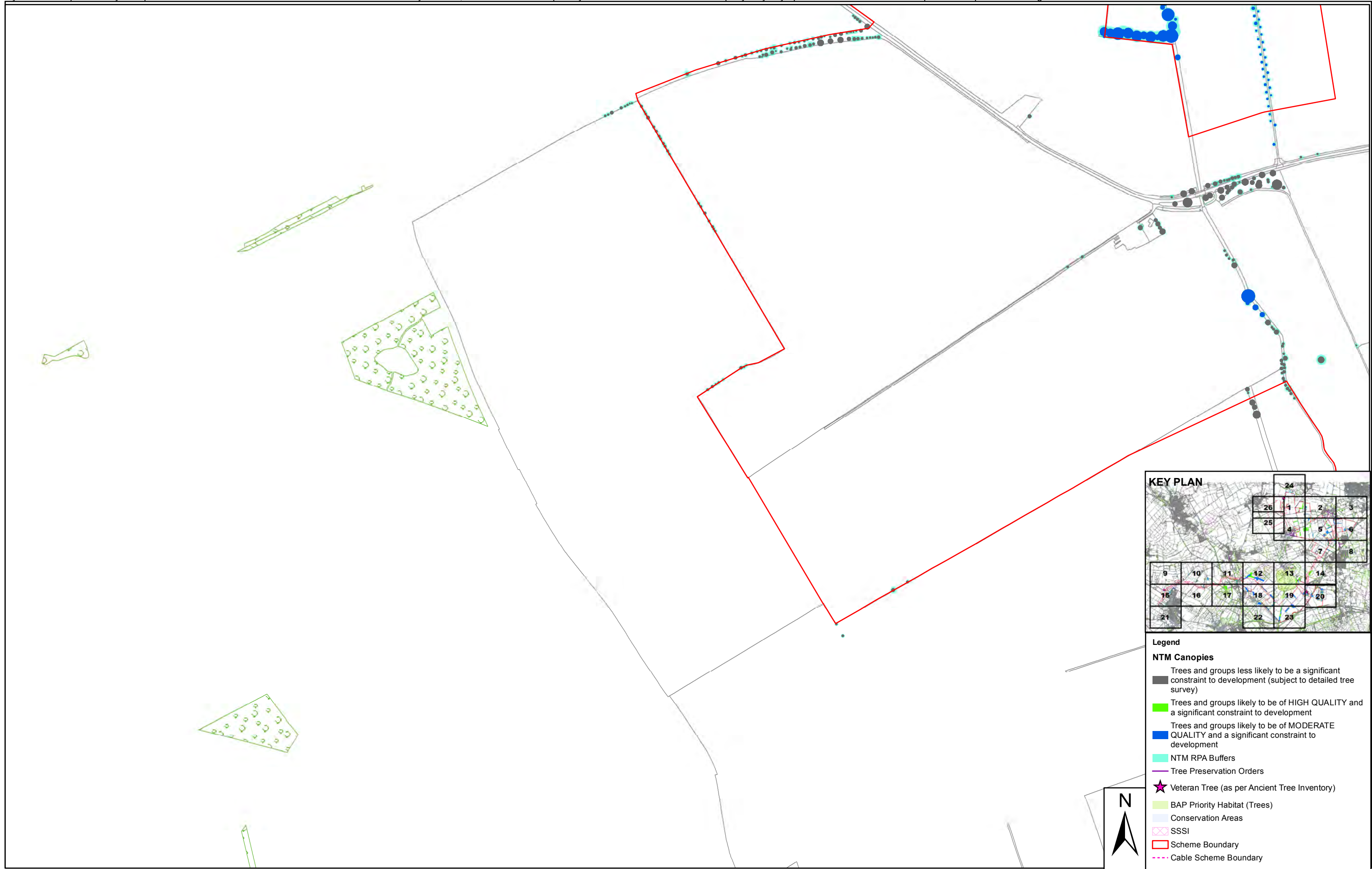
Client:	Sunnica Ltd
Project:	Sunnica Energy Farm

Title:	High Level Tree Constraints Plan Sheet 24 of 26
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Drawn:	CC	Checked:	AW
Verified:	MR	Approved:	AK
Date:	OCTOBER 2019	Scale at A3:	1:6,450
Drawing Number: 60589004_TREE_0024			A3



**Legend**

**NTM Canopies**

- Trees and groups less likely to be a significant constraint to development (subject to detailed tree survey)
- Trees and groups likely to be of HIGH QUALITY and a significant constraint to development
- Trees and groups likely to be of MODERATE QUALITY and a significant constraint to development
- NTM RPA Buffers
- Tree Preservation Orders
- ★ Veteran Tree (as per Ancient Tree Inventory)
- BAP Priority Habitat (Trees)
- Conservation Areas
- SSSI
- Scheme Boundary
- Cable Scheme Boundary



Client:	Sunnica Ltd
Project:	Sunnica Energy Farm

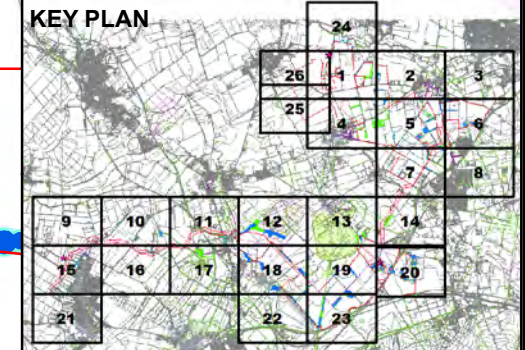
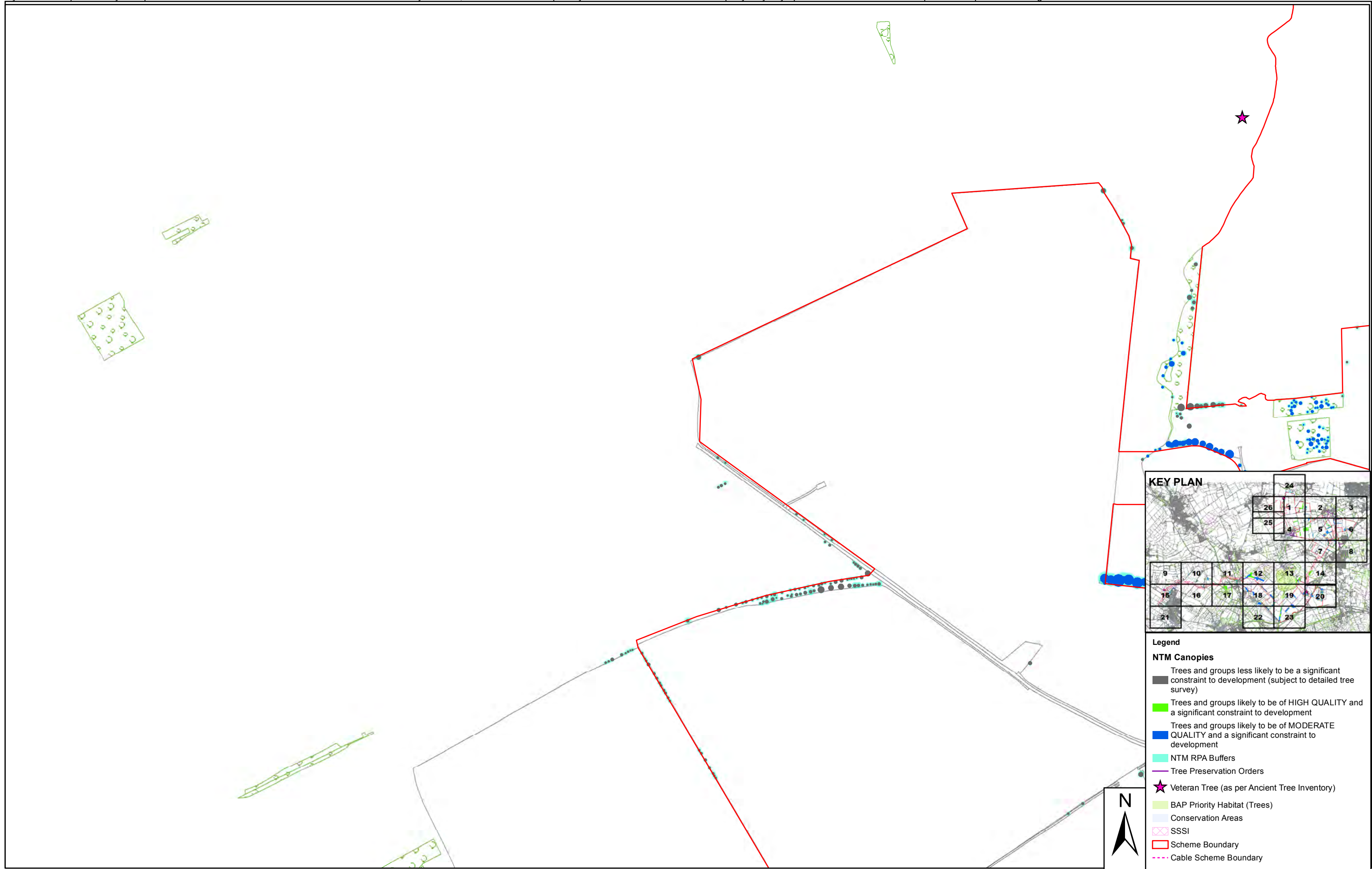
Title:	High Level Tree Constraints Plan Sheet 25 of 26
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Drawn:	CC	Checked:	AW
Verified:	MR	Approved:	AK
Date:	OCTOBER 2019	Scale at A3:	1:6,450
Drawing Number: 60589004_TREE_0025			A3





**Legend**

**NTM Canopies**

- Trees and groups less likely to be a significant constraint to development (subject to detailed tree survey)
- Trees and groups likely to be of HIGH QUALITY and a significant constraint to development
- Trees and groups likely to be of MODERATE QUALITY and a significant constraint to development
- NTM RPA Buffers
- Tree Preservation Orders
- ★ Veteran Tree (as per Ancient Tree Inventory)
- BAP Priority Habitat (Trees)
- Conservation Areas
- SSSI
- Scheme Boundary
- Cable Scheme Boundary

Client:	Sunnica Ltd
Project:	Sunnica Energy Farm

Title:	High Level Tree Constraints Plan Sheet 26 of 26
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Drawn:	CC	Checked:	AW
Verified:	MR	Approved:	AK
Date:	OCTOBER 2019	Scale at A3:	1:6,450
Drawing Number: 60589004_TREE_0026			A3