A614 Corridor Improvements Biodiversity Net Gain Assessment

August 2022

baker consultants

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Who we are:

Baker Consultants is an ecology and sustainability consultancy. We work in terrestrial, freshwater and marine environments, providing a range of services to industry, government, developers, public services and utilities.

Baker Consultants comprises a highly experienced team of professional ecologists. We do wildlife surveys - but they are only the first steps in the process for most projects. We are also involved in ecological assessment, environmental law, biodiversity management and design planning.

We don't just work with wildlife, because we know that communication with clients, design teams and conservation bodies is the key to project success. Explaining the implications of survey data, and interpreting legislation, policy and best practice is one of our strengths. We help decisions to be made and actions taken, allowing constraints to be kept to a minimum and project risks to be managed.

Our approach is scientific, pragmatic and creative. Alongside tried and tested methods, we seek to innovate, introduce clients to new ways of thinking and always deliver sound commercial awareness. You will find us honest and approachable, but we're not afraid to be robust and challenging - or to ask difficult questions.

We do believe in nature conservation. But we also believe in good development, well delivered. We know that, with our input, projects and plans can provide benefits for both nature and people.

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Unless otherwise stated in this document, the assessments made assume that the study site referred to will continue to be used for its current purpose without significant change. The assessment, recommendations and conclusions contained in this document may be based upon information provided by third parties and upon the assumption that the information is relevant, correct and complete. There has been no independent verification of information obtained from third parties, unless otherwise stated in the report.

Where field investigations have been carried out, these have been restricted to the agreed scope of works and carried out to a level of detail required to achieve the stated objectives of the services. Natural habitats and species distributions may change over time and further data should be sought following any significant delay from the publication of this document.

Report Contents

1 Summary

1.1 The Proposed Development

1.1.1 This document outlines the feasibility of Biodiversity Net Gain for the full A614 Corridor Improvement Scheme, as well as each individual scheme, informed by a previous assessment of each improvement individually.

1.1.2 This report describes and assesses area based and linear habitats found to be present at each site, and their biodiversity value, and compares them against expected habitats post development. It also provides advice to help minimise any loss to biodiversity value, thereby enabling the development to comply with current legislation and planning policy, British Standards, and the requirement of a 10% net gain to biodiversity value outlined by the upcoming Environment Act.

1.2 Recommended Actions

1.2.1 Provision of greenspace should be maximised as far as possible when future masterplanning is being considered, to be able to achieve a minimum 10% net gain across the scheme.

1.2.2 It is recommended that where possible, hedgerows are retained and enhanced to achieve at least 10% net gain in hedgerow units on each site. Any loss of hedgerows should be replaced like for like or better.

1.2.3 On sites where ditches are present, they should be retained in their current condition, or enhanced. Any loss of ditches should be replaced like for like or better.

1.2.4 Changes to, or loss of habitats of interest on site will need to be avoided, or appropriate mitigation put in place to reduce the effects of development.

1.3 Conclusions

1.3.1 The conclusion of this report is that Biodiversity Net Gain is feasible across the extent of the wider A614 Improvement Scheme, as well as within each individual scheme. The areas of greenspace provided, including grassland, scrub, and woodland planting is sufficient to fully offset the loss of these habitats to road infrastructure across the full development footprint. 'Trading' rules set by the metric are fully satisfied for the broad habitat types that are present across the extent of the full scheme.

2 Methods

2.1.1 To provide a baseline of ecological information, and to inform this Biodiversity Net Gain assessment, Phase 1 Habitat Surveys [1] were carried out by Baker Consultants in 2019, and updated in 2020. The vegetation types and habitats present were described and mapped during a walkover of the site. These habitats types have subsequently been converted to UKHAB habitat codes for the purposes of carrying out this Biodiversity Net Gain assessment.

2.1.2 Baseline habitat areas and/or habitat lengths (hedgerows and water-courses) were mapped and calculated by use of GIS software and then uploaded to the Defra Biodiversity Metric Calculator v3.0.

2.1.3 Post development habitat areas and lengths were obtained by reviewing the masterplans for each site for each site (see Appendix 1) and overlaying the proposed layout plans onto satellite base maps, using GIS software. Post development habitat areas or lengths (hedgerow/watercourses); the proposed ecological condition and strategic ecological location were uploaded to the calculation spreadsheet.

2.1.4 The difference in the pre- and post-development biodiversity unit values were compared by the metric calculator to identify the changes in biodiversity values for habitats, hedgerows and water-courses.

2.2 Limitations

2.2.1 There is a need to make assumptions with regards to the level of ecological condition that will be achievable for a given habitat. It is assumed that standard management procedures will achieve the appropriate condition, but stochastic and biological events, climate change and changes to road use could all impact on the ecological condition of habitats within close proximity to the proposed development sites.

[1] Joint Nature Conservation Committee (2010). Handbook for Phase I Habitat Survey: A Technique for Environmental Audit. JNCC, Peterborough.

3 Results

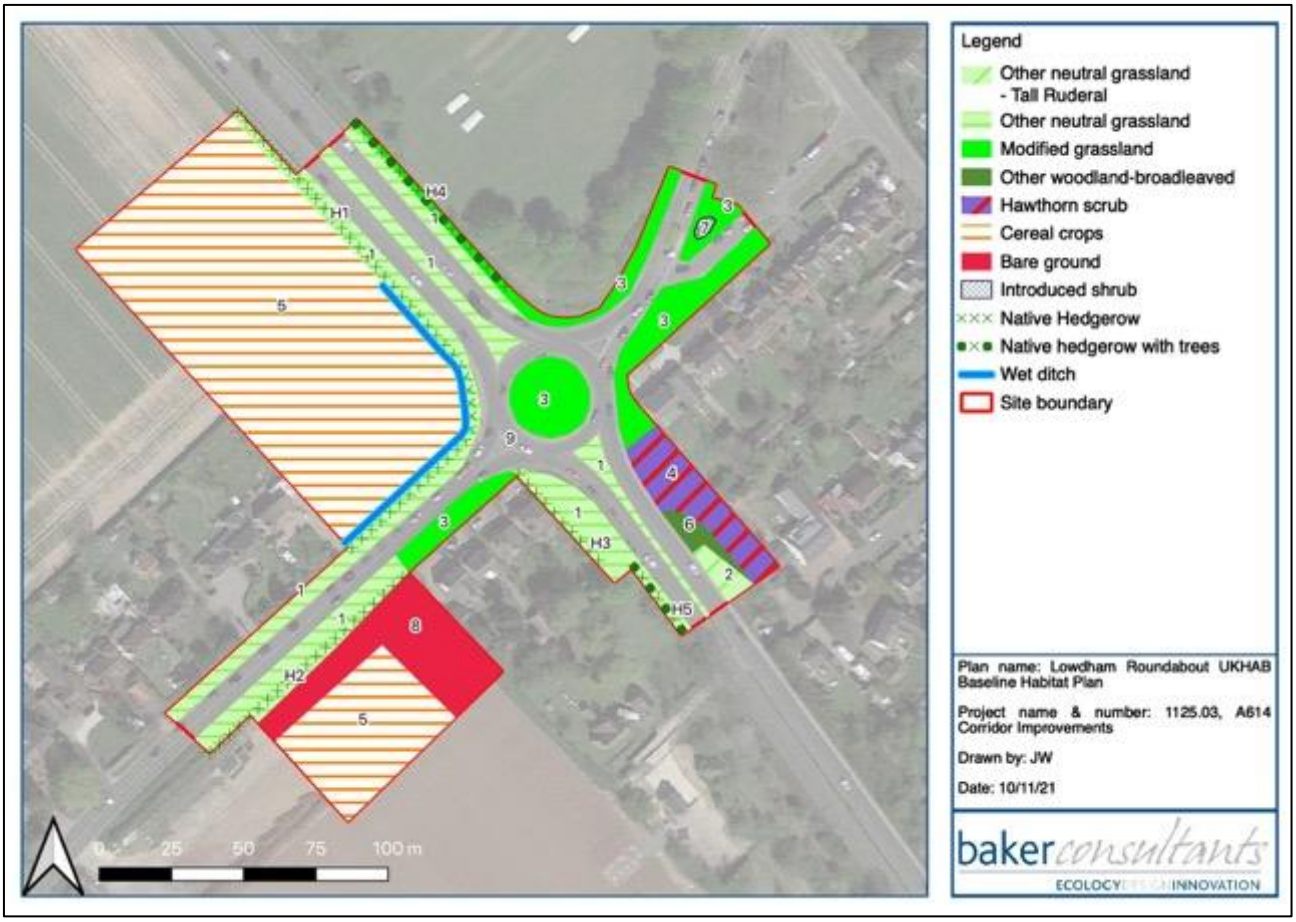
3.1.1 The following sections should be viewed in conjunction with the Biodiversity Net Gain Metric v3.0 calculation spreadsheets for each scheme.

3.2 Lowdham Roundabout

Baseline Conditions

3.2.1 The land at Lowdham Roundabout (Figure 1), outside of the road infrastructure is largely comprised of roadside grassland verges of varying ecological importance. Verges associated with Nottingham Road (northeast) and Southwell Road are species-poor 'Modified Grasslands', whereas 'Other Neutral Grassland' verges associated with the A6097 Dual Carriageway (northwest and southeast) and the A612 Trunk Road (southeast) are generally more species-rich. Arable fields are located to the northwest and southwest of the proposed site. Hedgerow's border the A6097 and A612 roads.

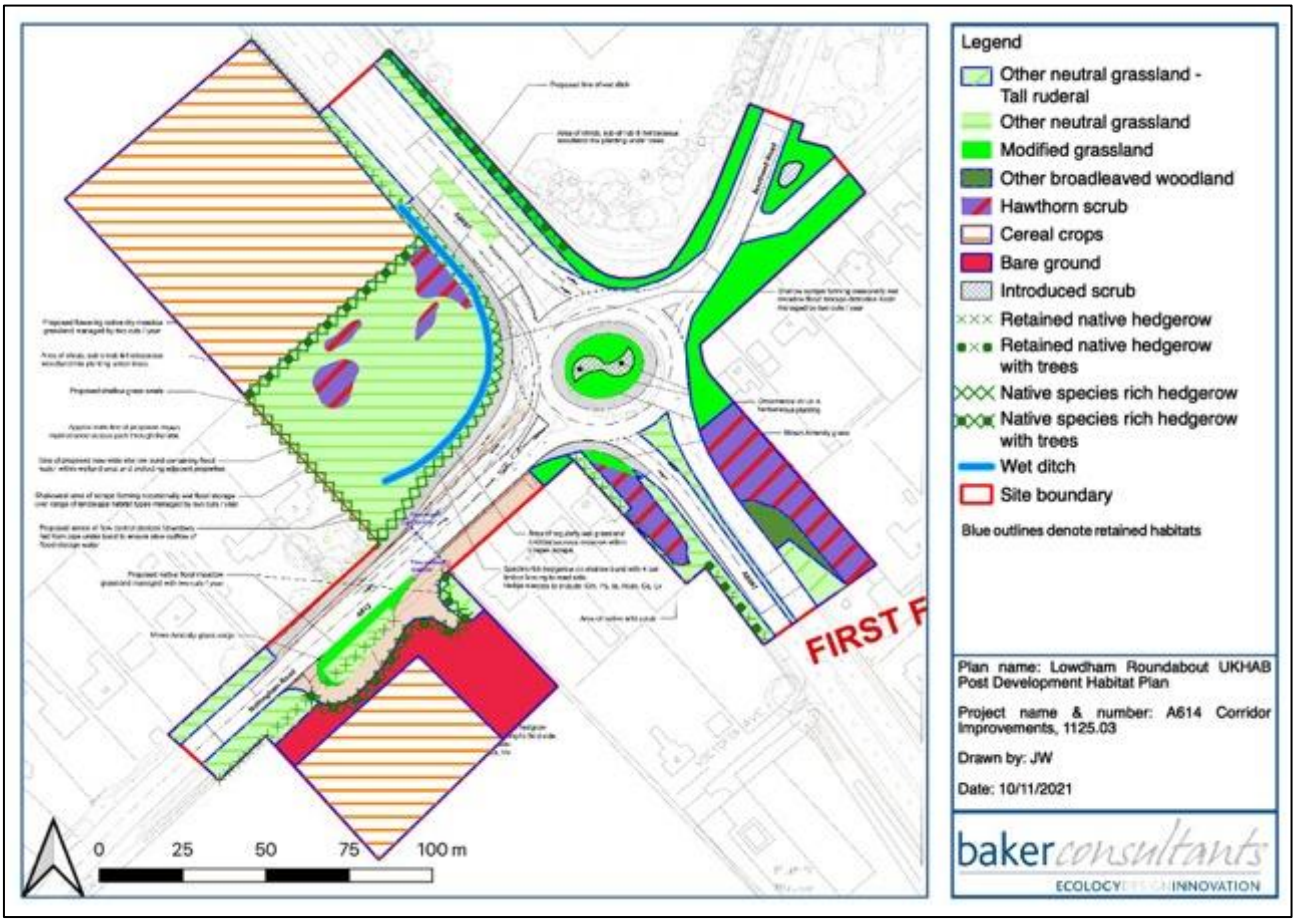
Figure 1. Baseline Habitat Plan



Anticipated Post Development Conditions

3.2.2 Figure 2 shows the anticipated post development layout for Lowdham Roundabout. The draft landscape design proposal (drawing number 20949/GEN/L006/00002, Appendix 1) has been interrogated to obtain the post-development biodiversity value. The additional footprint of road infrastructure is approximately 0.258ha.

Figure 2. Post Development Layout



3.2.3 The current values provided by the calculation may change if the masterplan changes. The results above assume that:

- Habitats to the east are largely retained and include Other Neutral Grassland, Hawthorn Scrub, Tall Ruderal vegetation, Broadleaved Woodland and Modified Grassland.
- Selected habitats will be managed to improve their existing ecological condition.
- New 'Other Neutral Grassland' on new road verges, and on what was previously arable land to the north west of Nottingham Road will achieve good ecological condition. This will be achieved by sowing a species- rich meadow seed mix and managing the sward to maintain species-richness and a variable structure.
- New 'Mixed Scrub' will achieve good ecological condition by planting at least three native shrub species, creating glades and an uneven age structure.

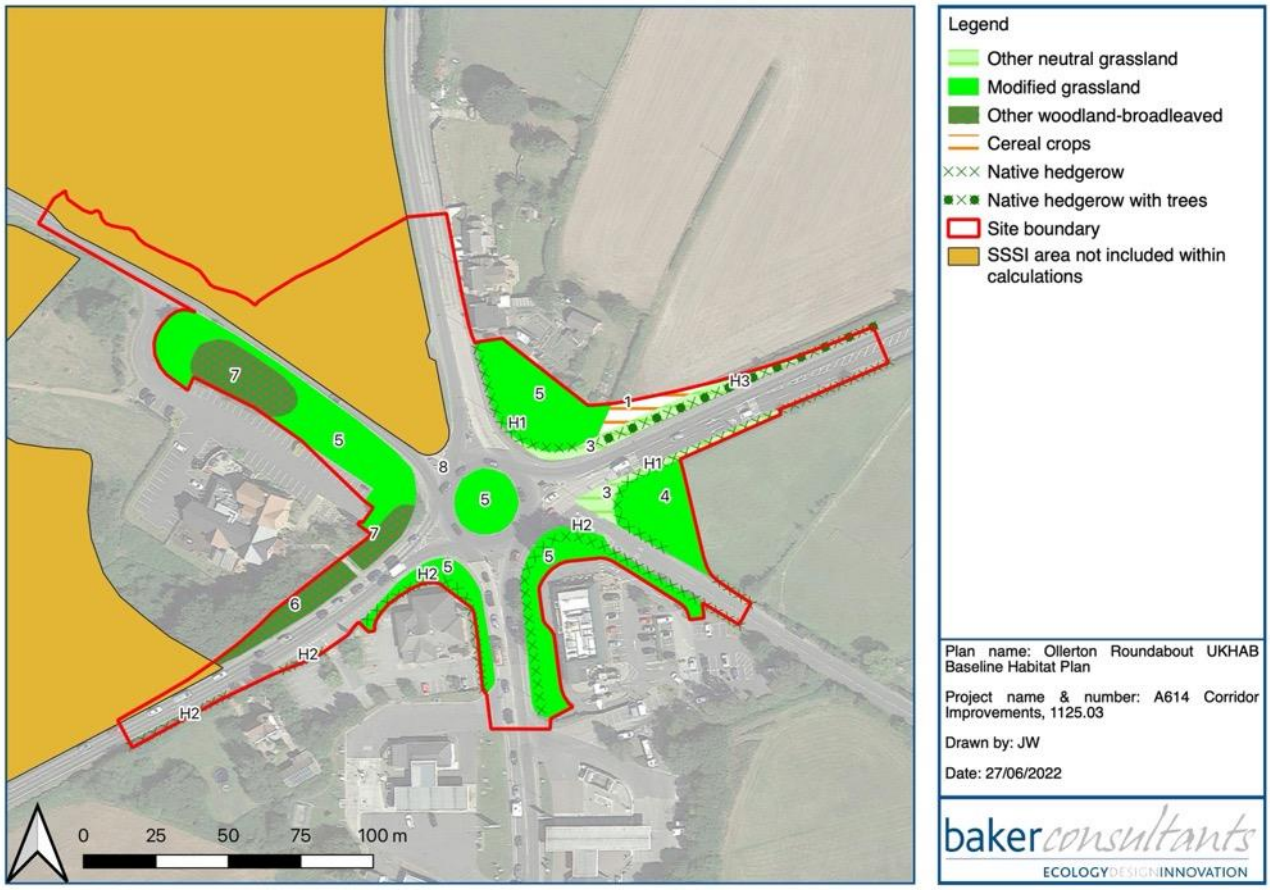
- New 'Modified Grassland' will only achieve poor condition, because of amenity management.
- New 'Introduced Shrubs' cannot only achieve a poor ecological condition.
- Hedgerows to the east of site will be largely retained. New hedgerows will achieve good ecological condition through planting at least seven native shrub and tree species and ensuring the hedge is structurally intact. A hedgerow at the southwest of site will be enhanced to be species rich and achieve good condition by planting up gaps with native shrub and tree species, and clearing undesirable ground flora.
- New wet ditches will achieve good ecological condition by maintaining permanent standing water, planting >10 emergent species within each ditch and retaining semi natural grassland on the bank.

3.3 Ollerton Roundabout

Baseline Conditions

3.3.1 The land at Ollerton Roundabout (Figure 3), outside of the road infrastructure is a mix of Modified Grassland verges and pasture grasslands, as well as Other Neutral Grassland to the north of the A616 Trunk Road, west of the A614 Trunk Road, and next to Ollerton Road. Stands of broadleaved woodland that are in poor condition are present where the site borders the A6075 Trunk Road and A616 Trunk Road. Broadleaved Woodland in good condition is located to the west of the A614 Trunk Road. Hedgerows are present alongside A6075 Trunk Road, Newark Road, the A614 Trunk Road and the A616 Trunk Road.

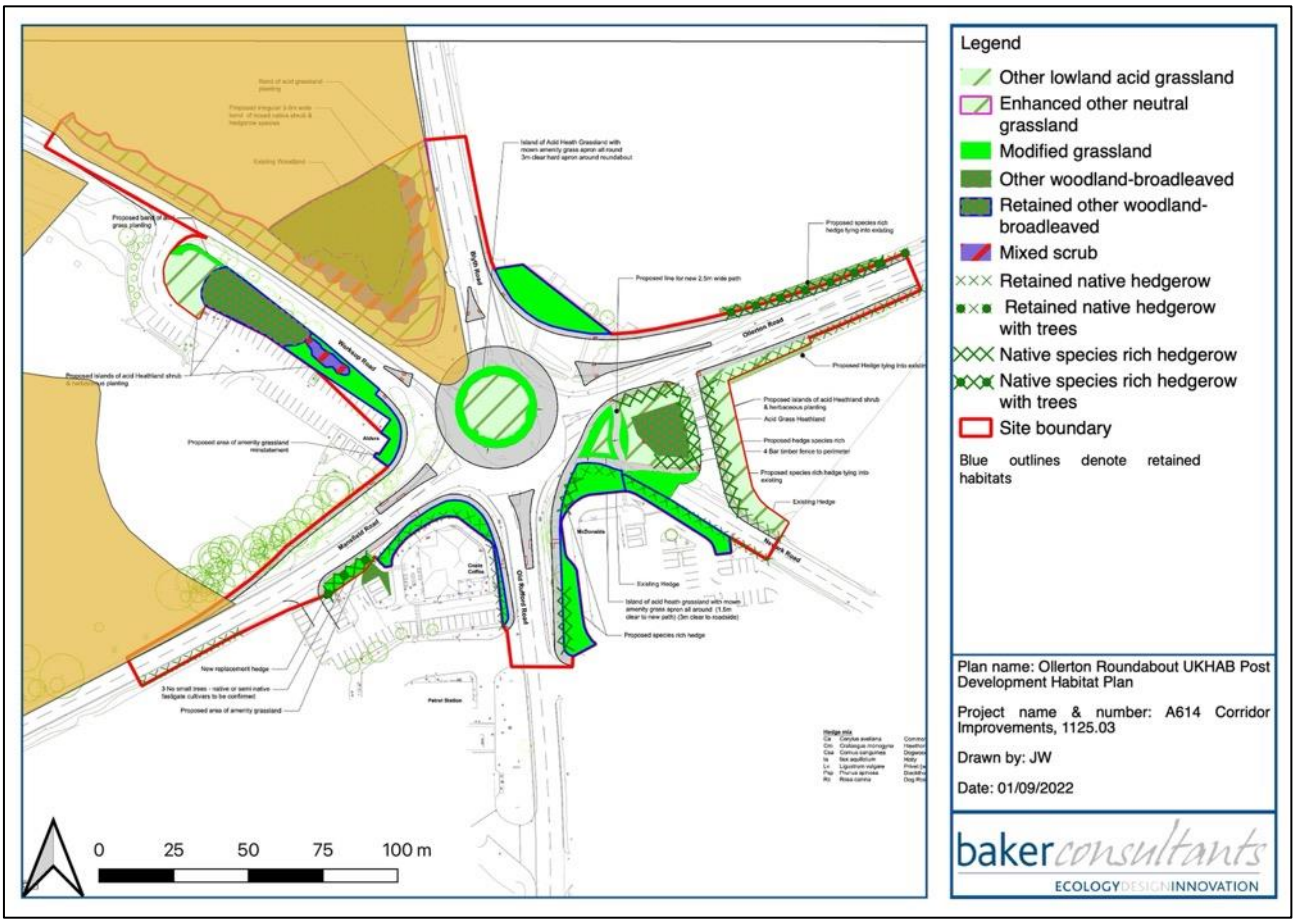
Figure 3. Baseline Habitat Plan



Anticipated Post Development Conditions

3.3.2 The anticipated post development layout for Ollerton Roundabout is shown on Figure 4. The draft landscape design proposal (drawing number 20249/ELS/O001/00002, Appendix 1) has been interrogated to determine a post development biodiversity value. The additional footprint of road infrastructure is approximately 0.31ha.

Figure 4. Post Development Layout



3.3.3 The current values provided by the calculation may change if the masterplan is updated. The results presented above assume the following:

- New 'Acid Grassland' will achieve good ecological condition by sowing a species rich seed mix, and creating and maintaining a varied sward structure. The condition of the strip of 'Other Neutral Grassland' habitat on the north side of the A616 Trunk Road will be improved by suitable management.

- New 'Mixed Scrub' will achieve good ecological condition by planting at least three native shrub species and creating glades within the scrub. Two small parcels in the draft development proposed to be 'Acid Heath Scrub' have been changed to 'Mixed Scrub' because it has a much lower delivery risk, is easier to create and provides more habitat units for a given area.

- Amenity-managed 'Modified Grassland' will achieve no more than 'poor' ecological condition.

- New 'Other Woodland – Broadleaved' will achieve a moderate condition by planting at least five native tree and shrub species, ensuring a varied age and canopy structure. Standing and fallen deadwood will also be provided.

- New hedgerows will achieve good ecological condition by planting seven native shrub

and tree species, and creating a dense and intact structure. Retained hedgerows will be enhanced to improve their ecological condition by planting up gaps with native shrub and tree species, and clearing undesirable ground flora.

3.4 Kirkhill Junction

Baseline Conditions

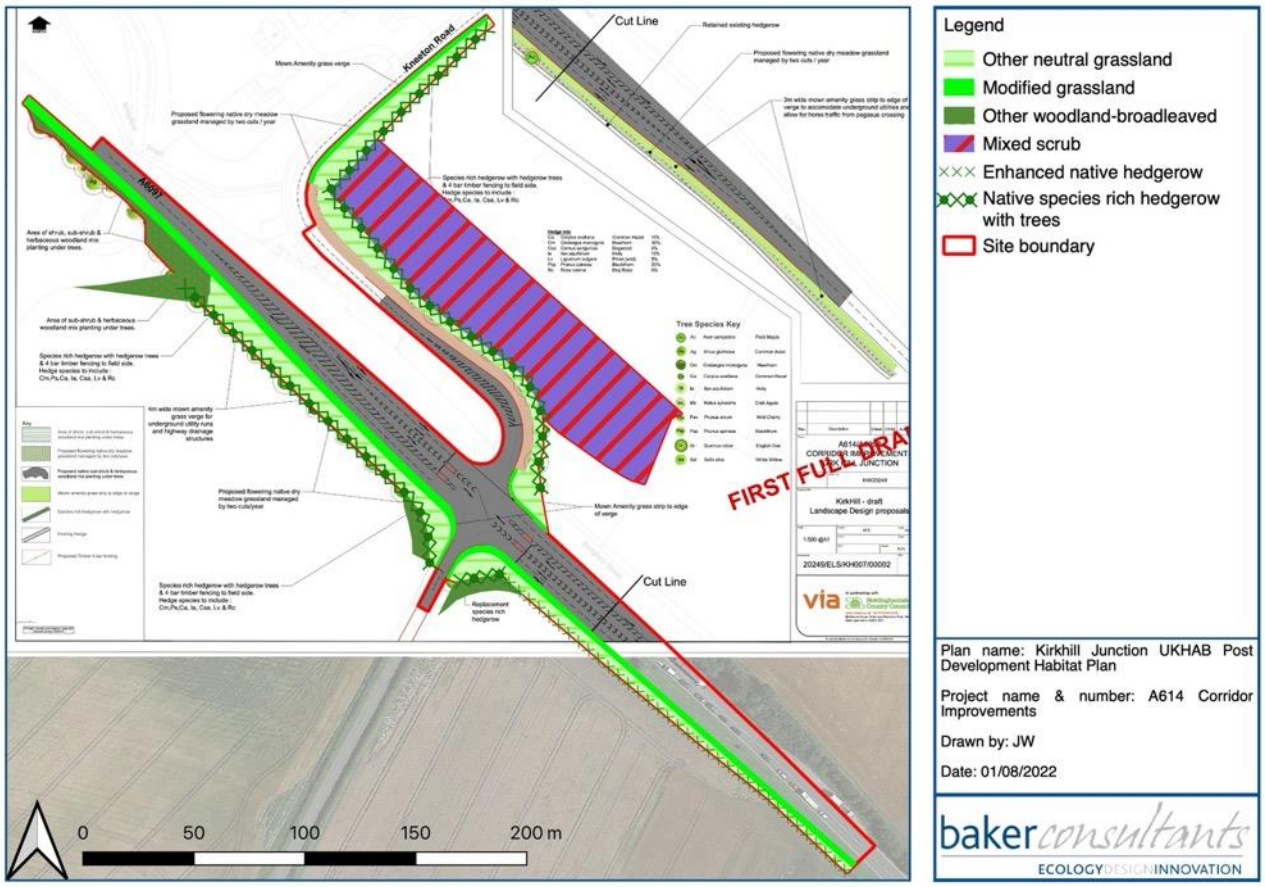
3.4.1 The land at Kirkhill Junction (Figure 5) includes Other Neutral Grassland verges along Bridgford Road and Kneeton Road that are in moderate ecological condition; Broadleaved Woodland located south of Bridgford Road that is in good ecological condition, and Broadleaved Woodland at the junction between Bridgford and Kneeton Road that is in moderate ecological condition. Parcels of arable habitat (cereal crop) and Modified Grassland pasture are located to the south and north respectively. Hedgerows border the grassland verges to the south of Bridgford Road and to the north of Kneeton Road.

Figure 5. Baseline Habitat Plan

Anticipated Post Development Conditions

3.4.2 The anticipated post development layout for Kirkhill Junction is shown on Figure 6. The draft landscape design proposal (drawing number 20249/ELS/KH007/00002, Appendix 1) has been interrogated to determine a post development biodiversity value. The additional footprint of road infrastructure is approximately 0.348ha.

Figure 6. Post Development Layout



3.4.3 The current values provided by the calculation may change if the masterplan is updated. The results presented above assume the following:

- New 'Other Neutral Grasslands' will achieve good ecological condition. This will be achieved by sowing a species-rich meadow seed mix and managing the sward to maintain species-richness and a variable structure.
- Amenity-managed 'Modified Grassland' will not be able to achieve anything more than 'poor' ecological condition.
- New 'Mixed Scrub' will achieve good ecological condition by planting at least three native shrub species and creating glades within the scrub.
- Areas of 'shrub and herbaceous woodland mix planting under trees' have been included under 'Other Woodland – Broadleaved'. This and new woodland will achieve a moderate condition by planting at least five native tree and shrub species, ensuring a varied age

and canopy structure. Standing and fallen deadwood will also be provided.

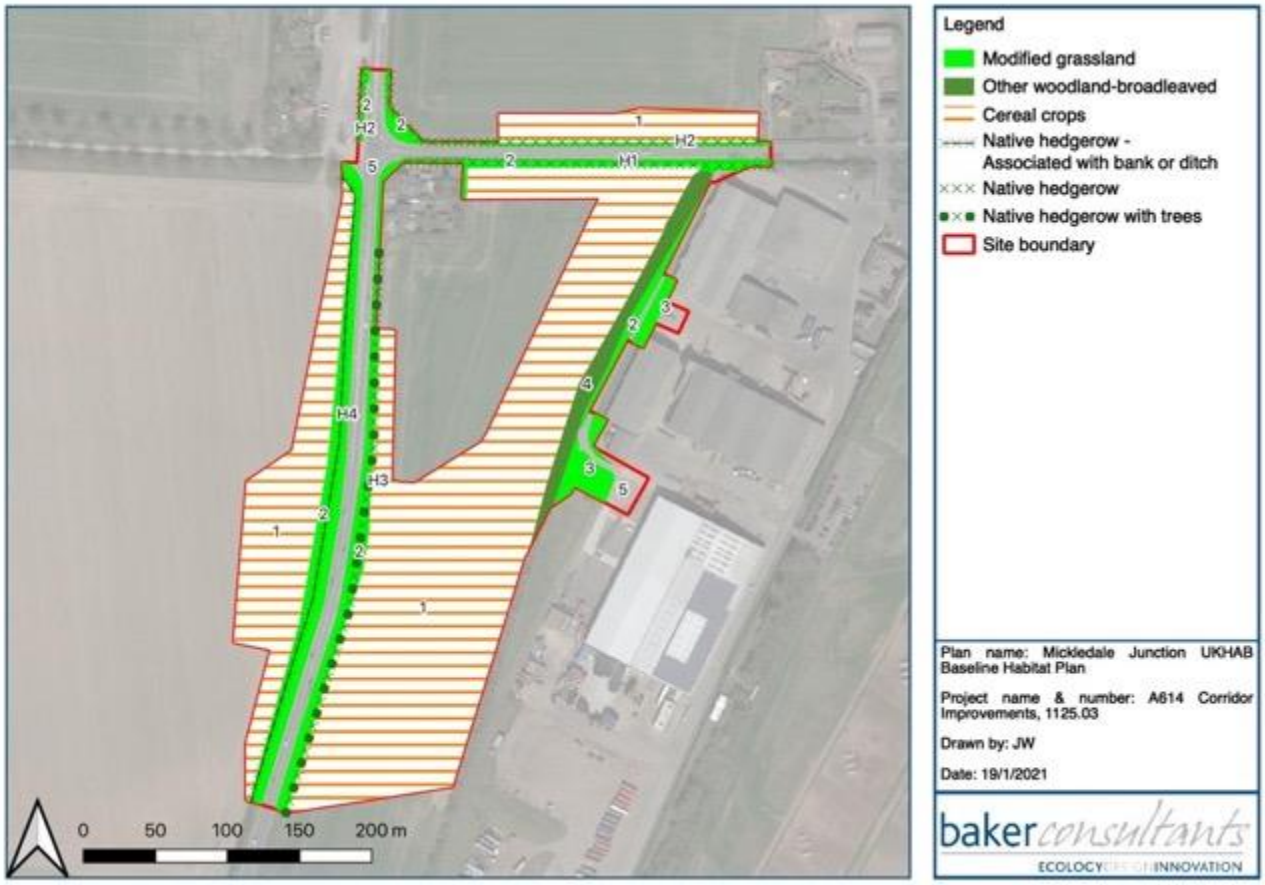
- New hedgerows will achieve good ecological condition by planting with seven or more native shrub and tree species, and creating a dense and intact structure.
- The retained hedgerow bordering the south section of Bridgford Road will be enhanced to good ecological condition by planting gaps with additional native species so that it changes from a species-poor to a species rich hedgerow; controlling pernicious weeds and the relaxing the trimming frequency to allow expansion of the hedgerow dimensions.

3.5 Mickledale Junction

Baseline Conditions

3.5.1 The land at Mickledale Junction (Figure 7) is Modified Grassland roadside verges in moderate ecological condition bordered by arable land in poor ecological condition. A shelterbelt of Broadleaved Woodland, in moderate condition, is present along the east boundary, adjacent to industrial development. Hedgerows border the Old Rufford Road and Mickledale Lane on both sides. The hedgerow on the west side of Old Rufford Road supports a dry ditch in poor ecological condition.

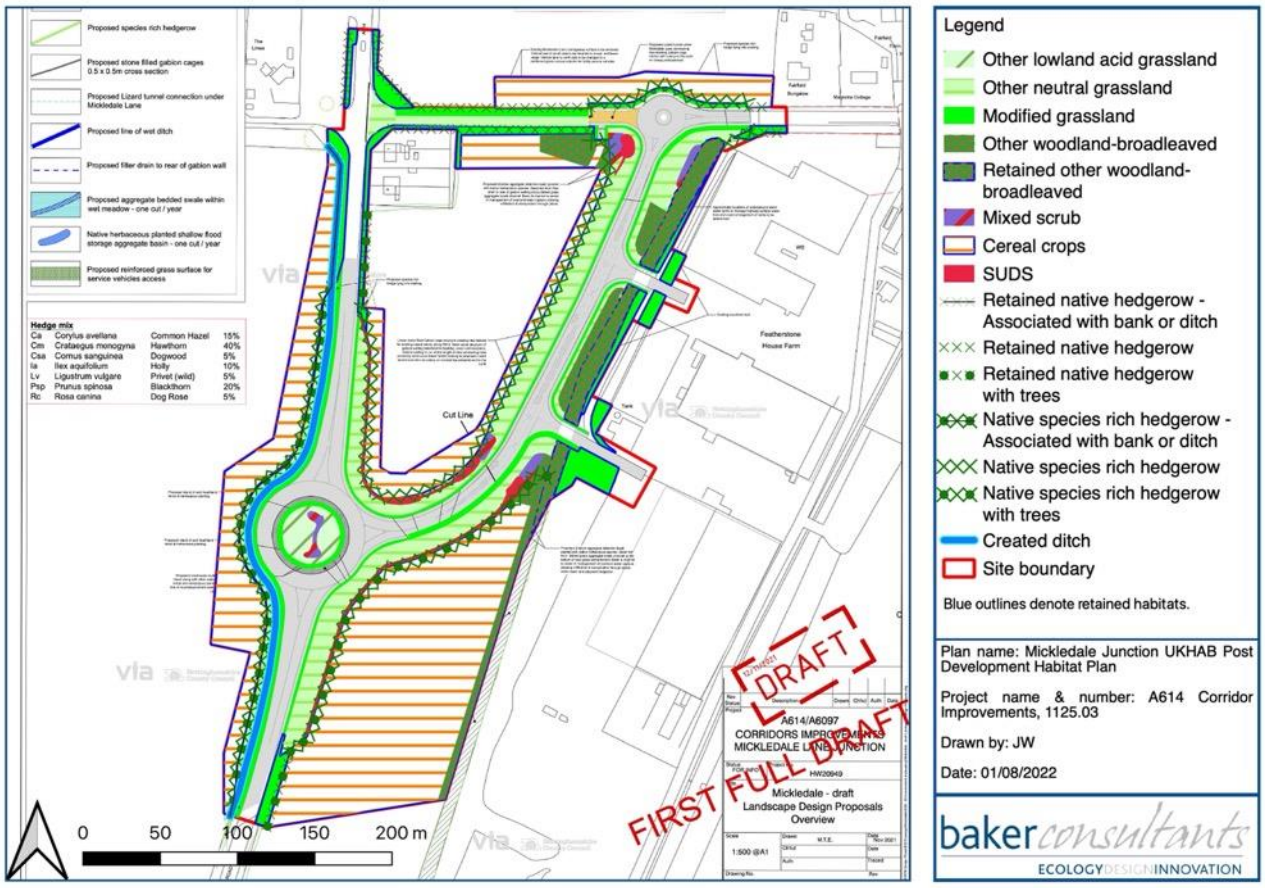
Figure 7. Baseline Habitat Plan



Anticipated Post Development Conditions

3.5.2 The anticipated post development layout for Kirkhill Junction is shown on Figure 8. The draft landscape design proposal (drawing number 20249/ELS/M003/00004, Appendix 1) has been interrogated to determine a post development biodiversity value. The additional footprint of road infrastructure is approximately 1.3ha.

Figure 8. Post Development Layout



3.5.3 The current values provided by the calculation may change if the masterplan changes. The results above assume that:

- New 'Acid Grassland' will achieve good ecological condition by sowing a species rich seed mix, and creating and maintaining a varied sward structure.
- New 'Other Neutral Grassland' will achieve good ecological condition. This will be achieved by sowing a species-rich meadow seed mix and managing the sward to maintain species-richness and a variable structure.
- Amenity-managed 'Modified Grassland' will achieve no more than 'poor' ecological condition.
- Areas of 'SUDS' and swale are aggregate lined, and will be classed as being in 'poor'

ecological condition.

- New 'Mixed Scrub' will achieve good ecological condition by planting at least three native shrub species and creating glades within the scrub. Parcels in the draft development proposed to be 'Acid Heath Scrub' have been changed to 'Mixed Scrub' because it has a much lower delivery risk, is easier to create, and provides more habitat units for a given area.
- New 'Other Woodland – Broadleaved' will achieve moderate condition by planting at least five native tree and shrub species, ensuring a varied age and canopy structure. Standing and fallen deadwood will also be provided.
- New hedgerows will achieve good ecological condition by planting seven native shrub and tree species, and creating a dense and intact structure.
- The retained sections of hedgerow bordering Old Rufford Road and Mickledale Lane may be enhanced further by planting gaps with additional native shrub and tree species and relaxing the trimming regime to expand the hedgerow dimensions and control of pernicious weeds.
- The proposed wet ditch has been assumed to be of moderate ecological condition. This is a precautionary assumption given that water retention on sandy soils may be very difficult to achieve.

3.6 Biodiversity Net Gain Calculation

3.6.1 The four improvements described above provide a total net gain across all four schemes equal to a 26.22% net gain for 'Habitat' units, a 71.75% net gain in 'Hedgerow' units, and a 67.14% net gain in 'River Units'.

3.6.2 It is understood at this time that each improvement scheme above is to be assessed separately for Biodiversity Net Gain. As such, the results of each schemes calculation are summarised below in table 1. Each scheme achieves a net gain in biodiversity value in regards to area, linear and watercourse habitats (where applicable). Please refer to the individual spreadsheets for a detailed analysis of each scheme.

Table 1. Scheme Biodiversity Net Gain Summary

	Baseline Units			Post Development Units			Net Gain (%)		
Site	Habitat	Hedgerow	River	Habitat	Hedgerow	River	Habitat	Hedgerow	River
Lowdham	6.40	2.31	0.54	8.57	5.06	1.01	33.95	118.70	86.74
Ollerton	2.04	2.48	-	2.39	5.45	-	16.70	120.10	N/A
Kirkhill	11.94	7.28	-	11.96	8.10	-	0.13	11.20	N/A
Mickledale	20.41	7.70	1.97	28.57	15.34	3.19	39.96	99.38	61.80

4 Assessment of Feasibility

4.1 A614 Road Improvement Scheme

4.1.1 The A614 Road Improvement Scheme will achieve a biodiversity net gain across the entirety of the scheme, as well as within the individual schemes, with regard to area, linear, and watercourse habitats.

4.1.2 The achievement of net gain has taken into account the 'mitigation hierarchy' – avoid, reduce, compensate and enhance:

- Aim to avoid negative effects, for example by redesign of a scheme.
- When avoidance is not possible, use mitigation measures to reduce the impacts.
- Use compensation measures if there are still negative impacts, for example by replacing habitats.
- Wherever feasible, seek opportunities to provide a net gain for biodiversity by enhancement.

4.1.3 The net gain is achieved through the retention and enhancement of habitat and wherever necessary, the provision of new grassland, scrub, hedgerow, ditch and woodland habitats. The replacement of lost habitats is 'like for like' or better across the extent of the scheme, which satisfies the trading rules of the metric.

4.2 Alternative Options

4.2.1 Should masterplanning change to include less greenspace, or complications arise with the provision of the proposed habitats within the scheme, it may be necessary to seek alternative options. The Defra Impact Assessment for BNG and Local Nature Recovery (2019)[2] identified three scenarios for off-setting biodiversity impacts.

4.2.2 Scenario A is on-site mitigation, which is discussed above and has been achieved for this scheme.

4.2.3 If scenario A becomes unachievable (in part or wholly), there will be a need to consider additional measures as set out in Scenarios B and C below:

- Scenario B: the developer is unable to compensate all impacts on-site, but is able to secure local compensatory habitat creation including purchasing statutory biodiversity credits provided by government-backed provision. This scenario is not modelled explicitly, and would require making assumptions for what an individual development, which are subject to site specific and spatial variation, might look like.

[2] Biodiversity net gain and local nature recovery strategies, RPC-4277(1)-DEFRA-EA, DEFRA, Natural England

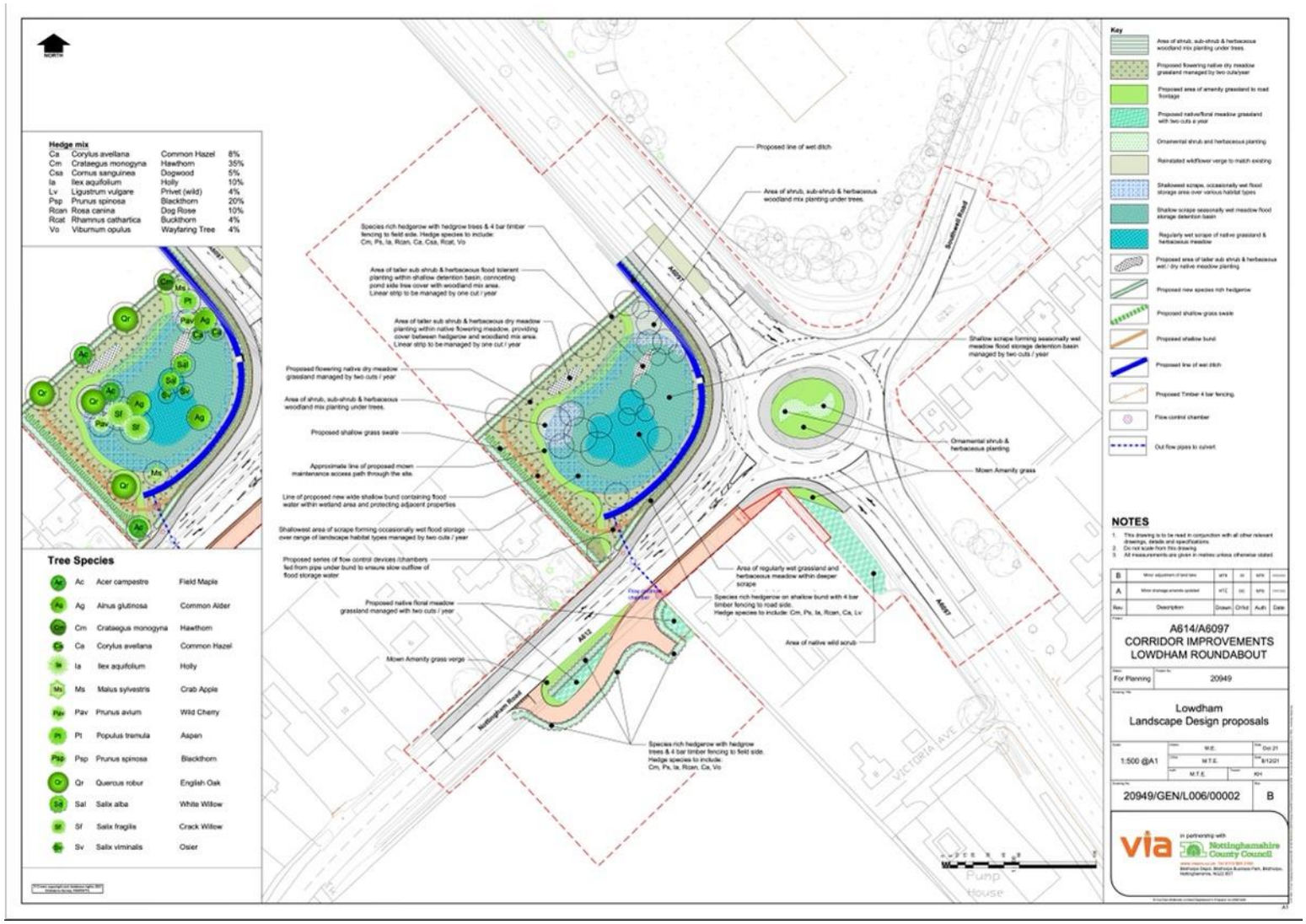
- Scenario C: the developer is unable to compensate on site and is unable to find local compensatory habitat in which to invest. Instead, they have to pay for their units through the biodiversity unit offsetting market, which may involve paying for statutory biodiversity credits offered by government for a fixed price. This scenario is modelled and reflects the likely maximum cost of the policy, and provides a ceiling to offset market prices. We assume that the biodiversity unit price is applied to the total biodiversity unit loss plus 10% net gain.

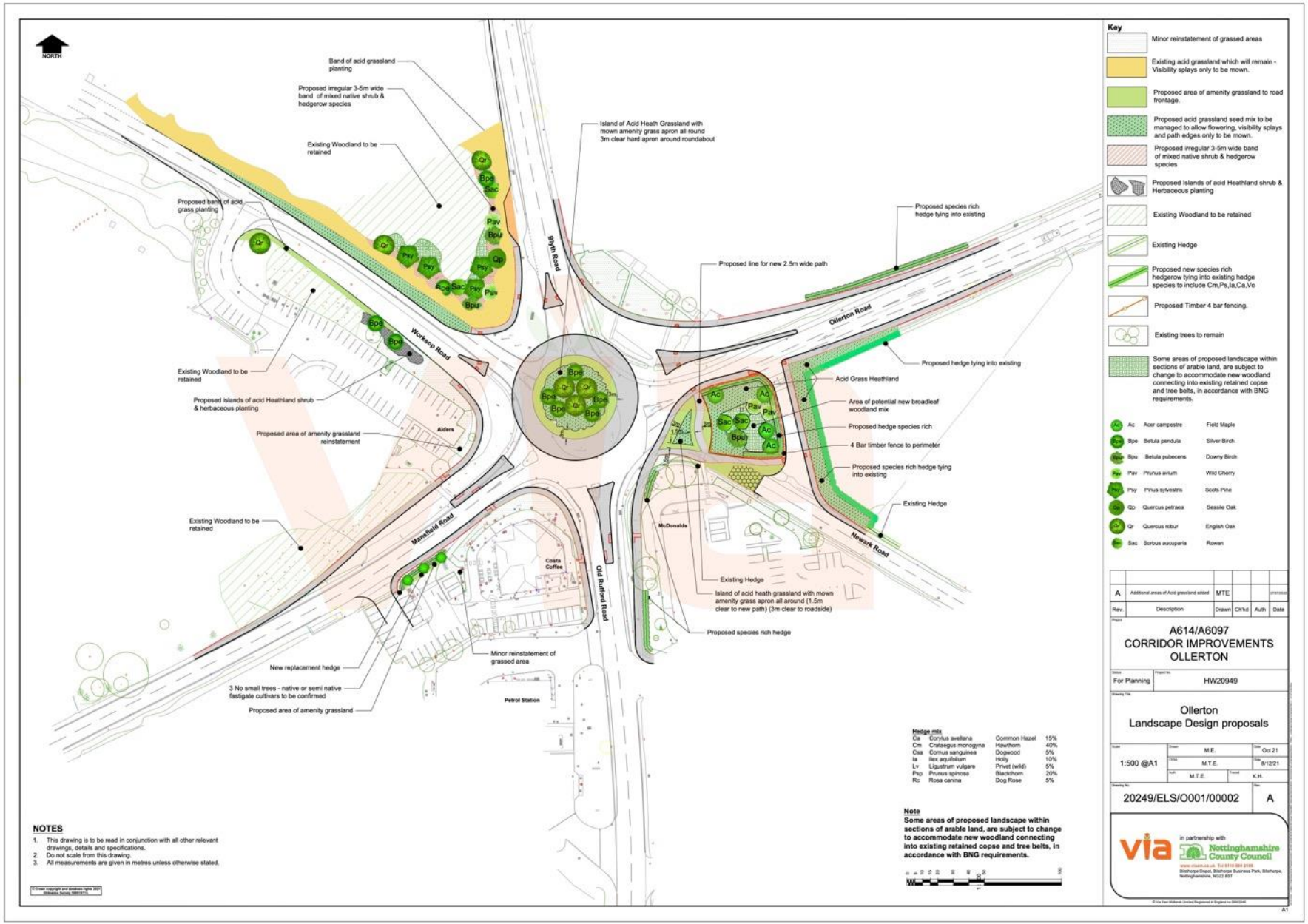
4.2.4 The market for BNG units is not yet established but scenario C may be viable if there is local provision through a private landowner or the local authority.

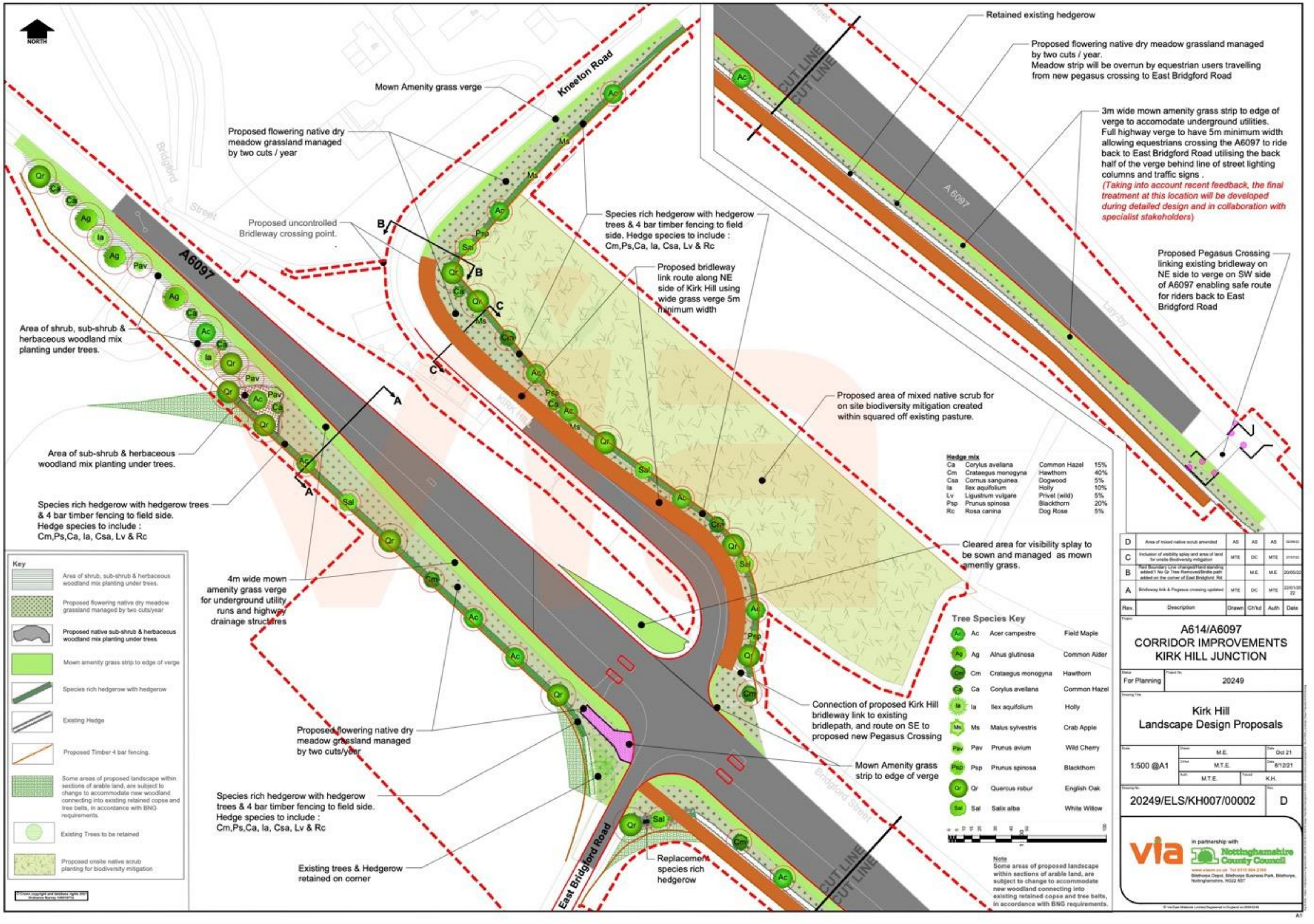
4.3 Recommendations

4.3.1 It is recommended that any future masterplanning includes the same or additional greenspace to satisfy a 10% net gain to biodiversity, and comply with the 'trading up' of broad habitat types, most notably grassland and woodland.

Appendix 1: Landscape Proposals


Hedge mix
Ca Corylus avellana Common Hazel 8%
Cm Crataegus monogyna Hawthorn 35%
Csa Cornus sanguinea Dogwood 5%
Ia Ilex aquifolium Holly 10%
Lv Ligustrum vulgare Privet (wild) 4%
Psp Prunus spinosa Blackthorn 20%
Rcan Rosa canina Dog Rose 10%
Rcat Rhamnus cathartica Buckthorn 4%
Vo Viburnum opulus Wayfaring Tree 4%
Tree Species
Ac Acer campestre Field Maple
Ag Alnus glutinosa Common Alder
Cm Crataegus monogyna Hawthorn
Ca Corylus avellana Common Hazel
Ia Ilex aquifolium Holly
Ms Malus sylvestris Crab Apple
Pav Prunus avium Wild Cherry
Pt Populus tremula Aspen
Psp Prunus spinosa Blackthorn
Qr Quercus robur English Oak
Sal Salix alba White Willow
Sf Salix fragilis Crack Willow
Sv Salix viminalis Osier
Proposed line of wet ditch
Area of shrub, sub-shrub & herbaceous woodland mix planting under trees.
Species rich hedgerow with hedgrow trees & 4 bar timber fencing to field side. Hedge species to include: Cm, Ps, Ia, Rcan, Ca, Csa, Rcat, Vo
Area of taller sub shrub & herbaceous flood tolerant planting within shallow detention basin, connecting pond side tree cover with woodland mix area. Linear strip to be managed by one cut / year
Area of taller sub shrub & herbaceous dry meadow planting within native flowering meadow, providing cover between hedgerow and woodland mix area. Linear strip to be managed by one cut / year
Proposed flowering native dry meadow grassland managed by two cuts / year
Area of shrub, sub-shrub & herbaceous woodland mix planting under trees.
Proposed shallow grass swale
Approximate line of proposed mown maintenance access path through the site.
Line of proposed new wide shallow bund containing flood water within wetland area and protecting adjacent properties
Shallowest area of scrape forming occasionally wet flood storage over range of landscape habitat types managed by two cuts / year
Proposed series of flow control devices /chambers fed from pipe under bund to ensure slow outflow of flood storage water
Proposed native floral meadow grassland managed with two cuts / year
Mown Amenity grass verge
Shallow scrape forming seasonally wet meadow flood storage detention basin managed by two cuts / year
Ornamental shrub & herbaceous planting
Mown Amenity grass
Area of regularly wet grassland and herbaceous meadow within deeper scrape
Species rich hedgerow on shallow bund with 4 bar timber fencing to road side. Hedge species to include: Cm, Ps, Ia, Rcan, Ca, Lv
Area of native wild scrub
Species rich hedgerow with hedgrow trees & 4 bar timber fencing to field side. Hedge species to include: Cm, Ps, Ia, Rcan, Ca, Vo
A6097
A612
Nottingham Road
Southwell Road
VICTORIA AVE
Pump House
Key
Area of shrub, sub-shrub & herbaceous woodland mix planting under trees.
Proposed flowering native dry meadow grassland managed by two cuts/year
Proposed area of amenity grassland to road frontage
Proposed native/floral meadow grassland with two cuts a year
Ornamental shrub and herbaceous planting
Reinstated wildflower verge to match existing
Shallowest scrape, occasionally wet flood storage area over various habitat types
Shallow scrape seasonally wet meadow flood storage detention basin
Regularly wet scrape of native grassland & herbaceous meadow
Proposed area of taller sub shrub & herbaceous wet / dry native meadow planting
Proposed new species rich hedgerow
Proposed shallow grass swale
Proposed shallow bund
Proposed line of wet ditch
Proposed Timber 4 bar fencing
Flow control chamber
Out flow pipes to culvert
NOTES
1. This drawing is to be read in conjunction with all other relevant drawings, details and specifications.
2. Do not scale from this drawing.
3. All measurements are given in metres unless otherwise stated.
A614/A6097
CORRIDOR IMPROVEMENTS
LOWDHAM ROUNDABOUT
For Planning
20949
Lowdham
Landscape Design proposals
1:500 @A1
20949/GEN/L006/00002
B
via
in partnership with
Nottinghamshire County Council


NORTH
Band of acid grassland planting
Proposed irregular 3-5m wide band of mixed native shrub & hedgerow species
Existing Woodland to be retained
Proposed band of acid grass planting
Existing Woodland to be retained
Proposed islands of acid Heathland shrub & herbaceous planting
Proposed area of amenity grassland reinstatement
Existing Woodland to be retained
New replacement hedge
3 No small trees - native or semi native fastigate cultivars to be confirmed
Proposed area of amenity grassland
Island of Acid Heath Grassland with mown amenity grass apron all round 3m clear hard apron around roundabout
Proposed line for new 2.5m wide path
Proposed species rich hedge tying into existing
Proposed hedge tying into existing
Acid Grass Heathland
Area of potential new broadleaf woodland mix
Proposed hedge species rich
4 Bar timber fence to perimeter
Proposed species rich hedge tying into existing
Existing Hedge
Existing Hedge
Island of acid heath grassland with mown amenity grass apron all around (1.5m clear to new path) (3m clear to roadside)
Proposed species rich hedge
Minor reinstatement of grassed area
Blyth Road
Ollerton Road
Newark Road
Old Rufford Road
Mansfield Road
Workson Road
Alders
McDonalds
Costa Coffee
Petrol Station
Key
Minor reinstatement of grassed areas
Existing acid grassland which will remain - Visibility splays only to be mown.
Proposed area of amenity grassland to road frontage.
Proposed acid grassland seed mix to be managed to allow flowering, visibility splays and path edges only to be mown.
Proposed irregular 3-5m wide band of mixed native shrub & hedgerow species
Proposed Islands of acid Heathland shrub & Herbaceous planting
Existing Woodland to be retained
Existing Hedge
Proposed new species rich hedgerow tying into existing hedge species to include Cm,Ps,Ia,Ca,Vo
Proposed Timber 4 bar fencing.
Existing trees to remain
Some areas of proposed landscape within sections of arable land, are subject to change to accommodate new woodland connecting into existing retained copse and tree belts, in accordance with BNG requirements.
Ac Acer campestre Field Maple
Bpe Betula pendula Silver Birch
Bpu Betula pubecens Downy Birch
Pav Prunus avium Wild Cherry
Psy Pinus sylvestris Scots Pine
Qp Quercus petraea Sessile Oak
Qr Quercus robur English Oak
Sac Sorbus aucuparia Rowan
Hedge mix
Ca Corylus avellana Common Hazel 15%
Cm Crataegus monogyna Hawthorn 40%
Csa Cornus sanguinea Dogwood 5%
Ia Ilex aquifolium Holly 10%
Lv Ligustrum vulgare Privet (wild) 5%
Psp Prunus spinosa Blackthorn 20%
Rc Rosa canina Dog Rose 5%
Note
Some areas of proposed landscape within sections of arable land, are subject to change to accommodate new woodland connecting into existing retained copse and tree belts, in accordance with BNG requirements.
NOTES
1. This drawing is to be read in conjunction with all other relevant drawings, details and specifications.
2. Do not scale from this drawing.
3. All measurements are given in metres unless otherwise stated.
A Additional areas of Acid grassland added MTE
Rev. Description Drawn Ch'k'd Auth Date
A614/A6097
CORRIDOR IMPROVEMENTS
OLLERTON
For Planning
HW20949
Ollerton
Landscape Design proposals
1:500 @A1
M.E. Oct 21
M.T.E. 8/12/21
M.T.E. K.H.
20249/ELS/O0001/00002
A
via
in partnership with
Nottinghamshire County Council
A1


NORTH
Mown Amenity grass verge
Kneeton Road
Proposed flowering native dry meadow grassland managed by two cuts / year
Proposed uncontrolled Bridleway crossing point.
A6097
Area of shrub, sub-shrub & herbaceous woodland mix planting under trees.
Area of sub-shrub & herbaceous woodland mix planting under trees.
Species rich hedgerow with hedgerow trees & 4 bar timber fencing to field side. Hedge species to include : Cm,Ps,Ca, Ia, Csa, Lv & Rc
4m wide mown amenity grass verge for underground utility runs and highway drainage structures
Species rich hedgerow with hedgerow trees & 4 bar timber fencing to field side. Hedge species to include : Cm,Ps,Ca, Ia, Csa, Lv & Rc
Proposed bridleway link route along NE side of Kirk Hill using wide grass verge 5m minimum width
Proposed area of mixed native scrub for on site biodiversity mitigation created within squared off existing pasture.
Cleared area for visibility splay to be sown and managed as mown amenity grass.
Connection of proposed Kirk Hill bridleway link to existing bridlepath, and route on SE to proposed new Pegasus Crossing
Mown Amenity grass strip to edge of verge
Proposed flowering native dry meadow grassland managed by two cuts/year
Species rich hedgerow with hedgerow trees & 4 bar timber fencing to field side. Hedge species to include : Cm,Ps,Ca, Ia, Csa, Lv & Rc
Existing trees & Hedgerow retained on corner
Replacement species rich hedgerow
East Bridgford Road
Bridgford Street
Kirk Hill
CUT LINE
Retained existing hedgerow
Proposed flowering native dry meadow grassland managed by two cuts / year. Meadow strip will be overrun by equestrian users travelling from new pegasus crossing to East Bridgford Road
3m wide mown amenity grass strip to edge of verge to accomodate underground utilities. Full highway verge to have 5m minimum width allowing equestrians crossing the A6097 to ride back to East Bridgford Road utilising the back half of the verge behind line of street lighting columns and traffic signs .
(Taking into account recent feedback, the final treatment at this location will be developed during detailed design and in collaboration with specialist stakeholders)
Proposed Pegasus Crossing linking existing bridleway on NE side to verge on SW side of A6097 enabling safe route for riders back to East Bridgford Road
A 6097
Lay-by
Key
Area of shrub, sub-shrub & herbaceous woodland mix planting under trees.
Proposed flowering native dry meadow grassland managed by two cuts/year
Proposed native sub-shrub & herbaceous woodland mix planting under trees
Mown amenity grass strip to edge of verge
Species rich hedgerow with hedgerow
Existing Hedge
Proposed Timber 4 bar fencing.
Some areas of proposed landscape within sections of arable land, are subject to change to accommodate new woodland connecting into existing retained copse and tree belts, in accordance with BNG requirements.
Existing Trees to be retained
Proposed onsite native scrub planting for biodiversity mitigation
Hedge mix
Ca Corylus avellana Common Hazel 15%
Cm Crataegus monogyna Hawthorn 40%
Csa Cornus sanguinea Dogwood 5%
Ia Ilex aquifolium Holly 10%
Lv Ligustrum vulgare Privet (wild) 5%
Psp Prunus spinosa Blackthorn 20%
Rc Rosa canina Dog Rose 5%
Tree Species Key
Ac Acer campestre Field Maple
Ag Alnus glutinosa Common Alder
Cm Crataegus monogyna Hawthorn
Ca Corylus avellana Common Hazel
Ia Ilex aquifolium Holly
Ms Malus sylvestris Crab Apple
Pav Prunus avium Wild Cherry
Psp Prunus spinosa Blackthorn
Qr Quercus robur English Oak
Sal Salix alba White Willow
Note
Some areas of proposed landscape within sections of arable land, are subject to change to accommodate new woodland connecting into existing retained copse and tree belts, in accordance with BNG requirements.
Rev. Description Drawn Ch'kd Auth Date
A614/A6097
CORRIDOR IMPROVEMENTS
KIRK HILL JUNCTION
For Planning
20249
Kirk Hill
Landscape Design Proposals
1:500 @A1
M.E.
M.T.E.
K.H.
Oct 21
20249/ELS/KH007/00002
D
via
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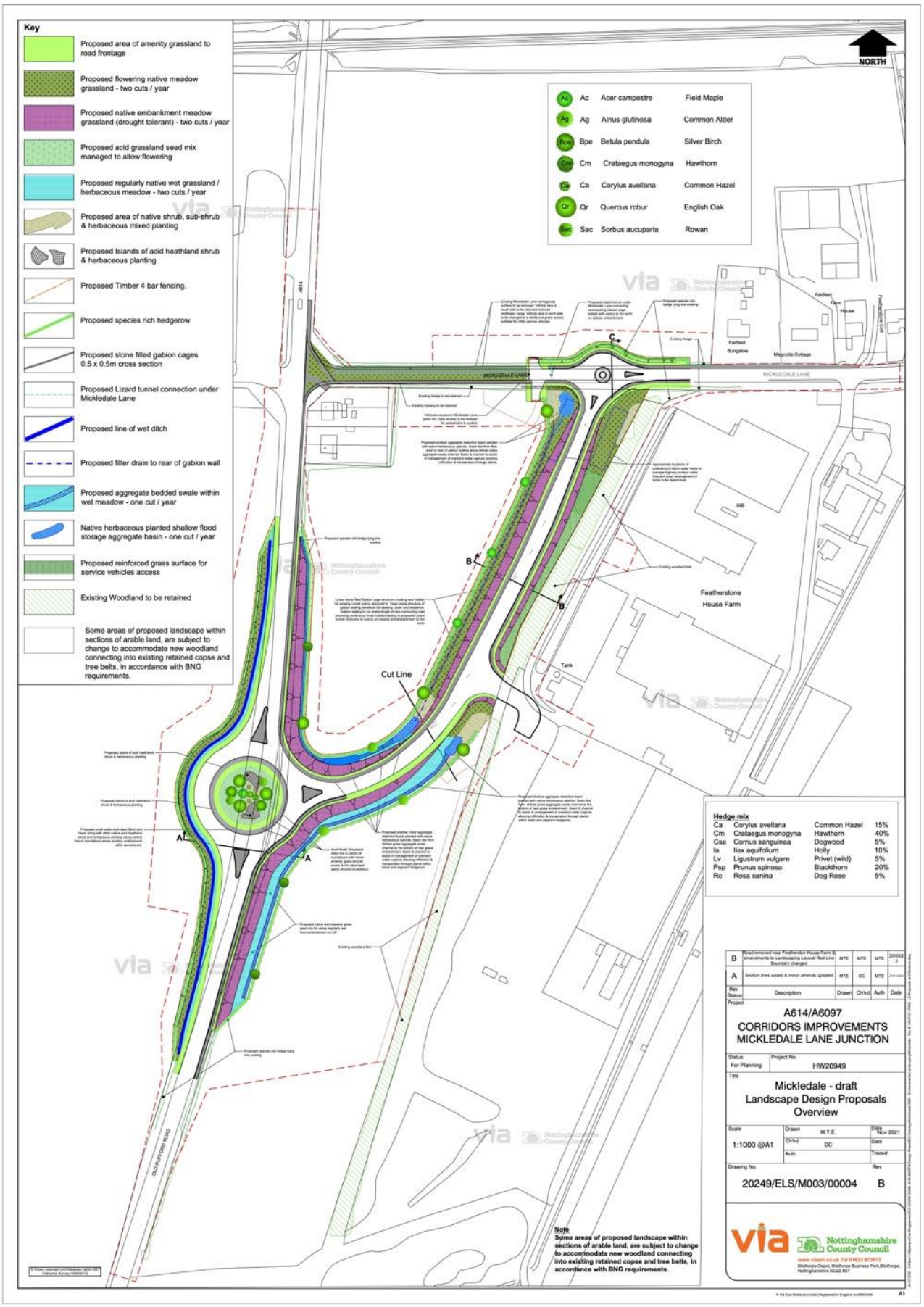
Key
Proposed area of amenity grassland to road frontage
Proposed flowering native meadow grassland - two cuts / year
Proposed native embankment meadow grassland (drought tolerant) - two cuts / year
Proposed acid grassland seed mix managed to allow flowering
Proposed regularly native wet grassland / herbaceous meadow - two cuts / year
Proposed area of native shrub, sub-shrub & herbaceous mixed planting
Proposed Islands of acid heathland shrub & herbaceous planting
Proposed Timber 4 bar fencing.
Proposed species rich hedgerow
Proposed stone filled gabion cages 0.5 x 0.5m cross section
Proposed Lizard tunnel connection under Mickledale Lane
Proposed line of wet ditch
Proposed filter drain to rear of gabion wall
Proposed aggregate bedded swale within wet meadow - one cut / year
Native herbaceous planted shallow flood storage aggregate basin - one cut / year
Proposed reinforced grass surface for service vehicles access
Existing Woodland to be retained
Some areas of proposed landscape within sections of arable land, are subject to change to accommodate new woodland connecting into existing retained copse and tree belts, in accordance with BNG requirements.
NORTH
Ac Acer campestre Field Maple
Ag Alnus glutinosa Common Alder
Bpe Betula pendula Silver Birch
Cm Crataegus monogyna Hawthorn
Ca Corylus avellana Common Hazel
Qr Quercus robur English Oak
Sac Sorbus aucuparia Rowan
A614
MICKLEDALE LANE
Fairfield Farm House
Fairfield Bungalow
Magnolia Cottage
Featherstone House Farm
Tank
Cut Line
OLD RUFFORD ROAD
Hedge mix
Ca Corylus avellana Common Hazel 15%
Cm Crataegus monogyna Hawthorn 40%
Csa Cornus sanguinea Dogwood 5%
Ia Ilex aquifolium Holly 10%
Lv Ligustrum vulgare Privet (wild) 5%
Psp Prunus spinosa Blackthorn 20%
Rc Rosa canina Dog Rose 5%
Note
Some areas of proposed landscape within sections of arable land, are subject to change to accommodate new woodland connecting into existing retained copse and tree belts, in accordance with BNG requirements.
A614/A6097
CORRIDORS IMPROVEMENTS
MICKLEDALE LANE JUNCTION
Mickledale - draft
Landscape Design Proposals
Overview
1:1000 @A1
20249/ELS/M003/00004
B
Nottinghamshire County Council

baker consultants