



6.8 Environmental Statement: Addendum Appendix A

Planning Act 2008 February 2019



Infrastructure Planning

Planning Act 2008

A303 Sparkford to Ilchester Dualling Scheme

Development Consent Order 201[X]

Environmental Statement: Addendum

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A1. Cultural Heritage Desk Based Assessment Technical Note

1.1.1 The proposed changes in the scheme design have resulted in new cultural heritage receptors being within the updated study area. This appendix contains updates of the tables included in Appendix 6.1 of Volume 6.3 of the 2018 ES (APP-067) to include those new receptors.

Gazetteer of all amended heritage assets

1.1.2 In reference to Table A.1 of Appendix 6.1 of the 2018 ES (APP-067), Table A1.1 provides a list of all amended designated heritage assets. Table A1.2 provides a list of non-designated assets.

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Table A1.1: NHLE data: Designated heritage assets

| MM no. | NHLE no. | Name | Description | Grade | NGR | Distance from scheme (metres) |
|-----------|----------|---------------|---|-------|----------------------|-------------------------------|
| MM01 | 1039625 | Eyewell House | A detached house dating to 1924-1925 of local lias stone with a plain clay tile roof that is now held by the Ministry of Defence. | II | ST 58741 25296 | 200 |
| MM02 | 1039624 | The Eyewell | A medieval well cistern in a roadside bank. It is formed of a local lias stone enclosure with a slab lib and was likely a focal point for the old village of Queen Camel that was mostly destroyed by a fire in 1639. | II | ST 58869 24969 | 40 |
| MM03 | 1248857 | Dairy House | A 17 th century detached farmhouse with subsequent 20 th century modifications, including porch. It was built using local lias stone with a double Roman clay tile roof. | II | ST 58753 24931 | 140 |
| MM18 | 1248858 | The Blackwell | A medieval well cistern on the river bank, consisting of a lias stone enclosure. It probably formed a focal point of the old village of Queen Camel which was largely destroyed by a fire in 1639. | II | ST 58988 24952 | 100 |

Table A1.2: NHLE data: Non-designated heritage assets

| MM no. | HER no. | Name | Description | NGR | Distance from scheme (metres) |
|--------|---------|--|--|-----------------|-------------------------------|
| MM046 | 19738 | Parish School, Back Street, Queen Camel | A former parish school, located next to 2 tenements for the parish poor, was replaced by the current school in 1872. | ST 5973 2495 | 700 |
| MM047 | 32437 | Excavation (2014) | An excavation in 2014 by Wessex Archaeology on West Camel Road, Queen Camel. The results of the excavation are awaited. | ST 5935 2450 | 500 |
| MM047 | 32345 | Geophysical survey (2013) | A magnetometry survey of 2 fields that revealed possible linear anomalies and evidence of ploughed ridge and furrow and square enclosure. | ST 5930 2460 | 500 |
| MM047 | 31898 | Evaluation (2012) | A series of evaluation trenches excavated in 2012 on West Camel Road, Queen Camel. The excavations north of the road revealed features relating to a Roman villa, including boundary ditches and a stone wall. All finds were from the Roman period; however, some prehistoric pottery was recovered. Those south of the road revealed 1 medieval linear feature and a second undated one. | ST 5920 2440 | 500 |

| MM no. | no. HER no. Name | | Description | NGR | Distance from scheme (metres) | |
|--------|------------------|--|---|----------------------------|-------------------------------|--|
| MM047 | 31922 | Geophysical survey (2012) | A fluxgate gradiometer survey in 2012 identified features associated with the Roman villa, including enclosure ditches and linear features overlain with ridge and furrow. | ST 5920 2440 | 500 | |
| MM047 | 31920 | Geophysical survey (2012) | A fluxgate gradiometer survey identified features related to the Roman villa overlain with ridge and furrow. | ST 5920 2460 | 500 | |
| MM047 | 28372 | Excavation (2009), Queen Camel | An excavation at the site of a Roman villa in 2009 that uncovered the corridor-type villa including bi-partite room, hypocaust, and detached bath house. | ST 5927 2456 | 500 | |
| MM047 | 22545 | Roman villa, Queen Camel | A Roman villa originally discovered by metal detectorists, before being further explored through geophysical survey and evaluation trenches. | ST 5929 2456 ST 5920 | 500 | |
| MM047 | 28371 | Geophysical survey (2009), Queen Camel | en Camel Heritage following metal detector finds in an arable field. The survey identified a large aisled hall style Roman building in a system of angular ditch enclosures. | | 500 | |
| MM048 | 52363 | lwy Cottage, Grace Martin's Lane, Queen Camel | An 18 th century cottage with extensive reconstruction and refurbishment in the late 20 th century that has been removed from the List of Buildings of Special Architectural and Historic Interest. | ST 5976 2498 | 900 | |
| MM149 | 54428 | Church of St Barabas and churchyard, Queen Camel | A medieval graveyard and 14 th century church. | ST 5973 2495 | 900 | |
| MM049 | 52353 | Robinson's Antiques, High Street, Queen Camel | An early 19 th century cottage and show with matching 20 th century additions that has been removed from the Somerset Historic Environment Record. | | 650 | |
| MM053 | 18506 | Medieval Occupation, High Street, Queen Camel | A site of medieval occupation reported via verbal communication. | ST 5965 2471 | 700 | |
| MM053 | 18505 | Watching Brief (2005) High Street, Queen Camel. | ST 5965 2471 | 700 | | |

| MM no. | HER no. | Name | Description | NGR | Distance from scheme (metres) |
|--------|---------|--|--|-----------------|-------------------------------|
| MM053 | 16962 | Evaluation (2004) land to rear of Saddler's Cottage, High Street, Queen Camel | A single evaluation trench in the rear garden of Saddler's Cottage yielded 13 th / 14 th and 18 th century features as well as ceramics, metal and other objects dating to these periods. | ST 5966 1270 | 700 |
| MM054 | 54443 | Pound, Queen Camel | A pound marked on a historic village map. | ST 5977 2494 | 900 |
| MM047 | 31921 | Geophysical survey (2012) | A fluxgate gradiometer survey identified a series of parallel linear anomalies that indicate ploughed ridge and furrow, 2 other linear features and a pit that may contain burnt material. | ST 5940 2430 | 980 |
| MM057 | 57192 | Evaluation (2000), Church Path, West Camel | Two evaluation trenches were excavated in the medieval village of West Camel and yielded a medieval ditch, gully, stake hole and pit feature. | ST 5797 2461 | 1000 |
| MM059 | 55874 | Medieval village, West Camel | West The medieval village of West Camel was mentioned in Domesday Book and has 2 main elements: the nucleus of medieval occupation around the church and the road running west from this. | | 1100 |
| MM060 | 54638 | Higher flour mill, Queen Camel | Remains of a mill have been incorporated into a garden and covered in ivy with the leat and stream visible either side. | ST 5795 2472 | 950 |
| MM150 | 54633 | Church of All Saints and churchyard, West Camel | A graveyard and 14 th century church in use since the medieval period. | | 850 |
| MM062 | 24643 | Turnpike Road Sparkford Hill, Sparkford, to Marston Inn, Marston Magna | A turnpike road of the Ilchester Trust. | ST 5954 2399 | 620 |
| MM064 | 54439 | Mill, Queen Camel | A watermill marked on a historic Greenwood's map. | ST 5977 2505 | 50 |
| MM076 | 54440 | Black well, Black Well Lane, Queen Camel | A well marked on Ordinance Survey map. | ST 5899 2495 | 100 |

| MM no. | HER no. | Name | Description | NGR | Distance from scheme (metres) |
|--------|---------|--|--|-----------------|-------------------------------|
| MM077 | 54438 | Mill, West of Queen Camel | A watermill marked on a historic Greenwood's map. | ST 5900 2480 | 50 |
| MM087 | 26103 | Watching Brief (2007), Churchyard of St Barnabas, Queen Camel | A watching brief of a narrow trench across the northern part of the graveyard identified nothing of archaeological significance. | ST 5973 2498 | 800 |
| MM093 | 54437 | Village cross site, Hazlegrove | A village cross in the centre of the village, shown in map in Somerset Record Office. | ST 5960 2680 | 650 |

Gazetteer of all additional heritage assets

1.1.3 In reference to Table A.2 of Appendix 6.1 of the 2018 ES (APP-067), Table A1.3 provides a list of all additional heritage assets that now fall within the proposed revised study area that were not previously listed.

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Table A1.3: NHLE data: Non-designated heritage assets

| MM no. | HER no. | Name | Description | NGR | Distance from scheme (meters) |
|--------|---------|--|---|---------------|-------------------------------|
| MM273 | 32699 | Rectory Farm barn, Queen Camel | Barn originally belonged to Cleeve Abbey. Dates from the mid 15th century and retained its original cruck-framed roof until conversion to cottages. Converted to residential use c.1980. | ST 595 244 | 830 |
| MM274 | 52354 | Wales Farmhouse, Church Path (North side), Wales | Detached farmhouse. 17th century and later. Local lias stone cut and squared, Ham stone dressings; thatched roof between coped gables; brick end chimney stacks. Barn. Probably C18. Local lias stone cut and squared; double Roman clay tile roof between coped gables, with gabletted finial to west end. | ST 584 246 | 480 |
| MM275 | 52356 | Row of cottages, about 10m north-east of Wales Farmhouse, Church Path (North side), Wales | Row of cottages, originally 3, currently 2. C15 and later. Local lias stone cut and squared. Thatched roof coped on west gable, plain to east; brick chimney stacks. | ST 584 246 | 480 |
| MM276 | N/A | Eyewell Farm | A farmhouse and associated buildings associated with the 17 th century with 20 th century modifications. The rural and agricultural setting of the assets contribute to the value of the heritage assets, with views across the surrounding fields from the property. | ST 587 249 | 140 |
| MM277 | N/A | Stone barn fronting road, Wales Dairy | A 17 th century barn associated with a detached farmhouse. It was built using local lias stone with a double Roman clay tile roof. The rural and agricultural setting of the assets contribute to the value of the heritage assets, with views across the surrounding fields from the property. | ST 587 249 | 140 |

Heritage assets scoped in / out for the assessment

1.1.4 In reference to Table B.1 of Appendix 6.1 of the 2018 ES (APP-067), Table A1.4 provides an updated list of all heritage assets that have been scoped in or out of the assessment.

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Table A1.4 Heritage assets scoped in / out for the cultural heritage assessment

| Group no. | Group name | MM no. | NHLE / HER no. | Name | Grade | Scoped (in / out) | Reasoning | |
|--------------|------------------|-----------|-------------------|---|-------|-------------------------|--|--|
| GR01 | Eyewell Group | MM01 | 1039625 | Eyewell House | II | In | The asset is a detached house dating to 1924-1925 of local lias stone that is now held by the Ministry of Defence. There is the potential for a negative impact on the setting of these assets due to the proximity to the scheme. | |
| | | MM01 | 1258875 | Range of outbuildings attached to north of Eyewell House | II | | | The asset is a series of outbuildings dating to 1924-1925 associated with Eyewell House. There is the potential for a negative impact on the setting of these assets due to the proximity to the scheme. |
| | | MM01 | 1258884 | East boundary wall and gateway about 15 metres east of Eyewell House | II | | The asset is a boundary wall to the east of Eyewall House dating to 1924-1925. There is the potential for a negative impact on the setting of these assets due to the proximity to the scheme. | |
| N/A | N/A | MM02 | 1039624 | The Eyewell | | In | The asset is a medieval well cistern in a roadside bank. It is formed of a local lias stone enclosure with a slab lib and was likely a focal point for the old village of Queen Camel that was mostly destroyed by a fire in 1639. The distance from the scheme and the immediate setting suggests there will be a negative impact on the setting of the heritage asset. | |
| N/A | N/A | MM03 | 1248857 | Dairy House | II | ln . | The asset is a 17 th century detached farmhouse with subsequent 20 th century modifications, including porch. It was built using local lias stone with a double Roman clay tile roof. The distance from the scheme suggests there will be a negative impact on the setting of the heritage asset. | |
| N/A | N/A | MM18 | 1248858 | The Blackwell | II | In | The asset is a medieval well cistern on the river bank, consisting of a lias stone enclosure. It probably formed a focal point of the old village of Queen Camel which was largely destroyed by a fire in 1639. The distance from the scheme suggests there will be a negative impact on the setting of the heritage asset. | |

| Group no. | Group name | MM no. | NHLE / HER no. | Name | Grade | Scoped (in / out) | Reasoning |
|--------------|--|-----------|-------------------|---|-------|-------------------------|--|
| GR07 | Queen Camel Conservation Area Group | MM46 | 19738 | Parish School, Back Street, Queen Camel | N/A | In | The asset is a former parish school, located next to 2 tenements for the parish poor, and was replaced by the current one in 1872. This asset lies within the Queen Camel Conservation Area (MM40) and will therefore be grouped and assessed as part of this asset. |
| N/A | N/A | MM273 | 32699 | Rectory Farm barn, Queen Camel | N/A | Out | Barn originally belonged to Cleeve Abbey. Dates from the mid 15th century and retained its original cruck-framed roof until conversion to cottages. Converted to residential use c.1980. The asset is considered too far from the scheme to be impacted. |
| N/A | N/A | MM047 | 32437 | Excavation (2014) | N/A | Out | An excavation in 2014 by Wessex Archaeology on West Camel Road, Queen Camel. The results of the excavation are awaited. The asset is considered too far from the scheme to be impacted. |
| N/A | N/A | MM047 | 32345 | Geophysical survey (2013) | N/A | Out | A magnetometry survey of two fields that revealed possible linear anomalies and evidence of ploughed ridge and furrow and square enclosure. The asset is considered too far from the scheme to be impacted. |
| N/A | N/A | MM047 | 31898 | Evaluation (2012) | N/A | Out | A series of evaluation trenches excavated in 2012 on West Camel Road, Queen Camel. The excavations north of the road revealed features relating to a Roman villa, including boundary ditches and a stone wall. All finds were from the Roman period; however, some prehistoric pottery was recovered. Those south of the road revealed 1 medieval linear feature and a second undated one. The asset is considered too far from the scheme to be impacted. |
| N/A | N/A | MM047 | 31922 | Geophysical survey (2012) | N/A | Out | A fluxgate gradiometer survey in 2012 identified features associated with the Roman villa, including enclosure ditches and linear features overlain with ridge and furrow. The asset is considered too far from the scheme to be impacted. |
| N/A | N/A | MM047 | 31920 | Geophysical survey (2012) | N/A | Out | A fluxgate gradiometer survey identified features related to the Roman villa overlain with ridge and furrow. The asset is considered too far from the scheme to be impacted. |
| N/A | N/A | MM047 | 28372 | Excavation (2009), Queen Camel | N/A | Out | An excavation at the site of a Roman villa in 2009 that uncovered the corridor-type villa including bi-partite room, hypocaust, and detached bath house. The asset is considered too far from the scheme to be impacted. |

| Group no. | Group name | MM no. | NHLE / HER no. | Name | Grade | Scoped (in / out) | Reasoning |
|--------------|--|-----------|-------------------|---|----------|-------------------------|--|
| N/A | N/A | MM047 | 22545 | Roman villa, Queen Camel | N/A | Out | A Roman villa originally discovered by metal detectorists, before being further explored through geophysical survey and evaluation trenches. The asset is considered too far from the scheme to be impacted. |
| N/A | N/A | MM047 | 28371 | Geophysical survey (2009), Queen Camel | N/A | Out | A geophysical survey in 2008 was undertaken by English Heritage following metal detector finds in an arable field. The survey identified a large aisled hall style Roman building in a system of angular ditch enclosures. The asset is considered too far from the scheme to be impacted. |
| GR07 | Queen Camel Conservation Area Group | MM048 | 52363 | lyy Cottage, Grace Martin's Lane, Queen Camel | N/A | In | This asset is an 18th century cottage with extensive reconstruction and refurbishment in the late 20th century that was removed from the List of Buildings of Special Architectural and Historic Interest. This asset lies within the Queen Camel Conservation Area (MM40) and will therefore be grouped and assessed as part of this asset. |
| GR07 | Queen Camel Conservation Area Group | MM149 | 54428 | Church of St Barabas and churchyard, Queen Camel | N/A | In | The asset is the medieval graveyard and 14 th century church. The asset lies within the Queen Camel (MM40) Conservation Area and will be considered as part of the assessment for MM40. |
| GR07 | Queen Camel Conservation Area Group | MM049 | 52353 | Robinson's Antiques, High Street, Queen Camel | DELISTED | I n | The asset is an early 19th century cottage and show with matching 20th century additions that has been removed from the Somerset Historic Environment Record, however it is still considered to have local heritage value. This asset lies within the Queen Camel Conservation Area (MM40) and will therefore be grouped and assessed as part of this asset. |
| GR07 | Queen Camel Conservation Area Group | MM053 | 18506 | Medieval Occupation, High Street, Queen Camel | N/A | In | The asset is a site of medieval occupation reported via verbal communication, and subsequently investigated during a watching brief and archaeological evaluation, yielding physical evidence. This asset lies within the Queen Camel Conservation Area (MM40) and will be considered as part of the assessment for MM40. |
| N/A | N/A | MM053 | 18505 | Watching Brief (2005) High Street, | N/A | Out | A watching brief of foundation excavation and service trenches identified pits containing medieval material, and potential former cottages along the High Street suggesting an area of late medieval |

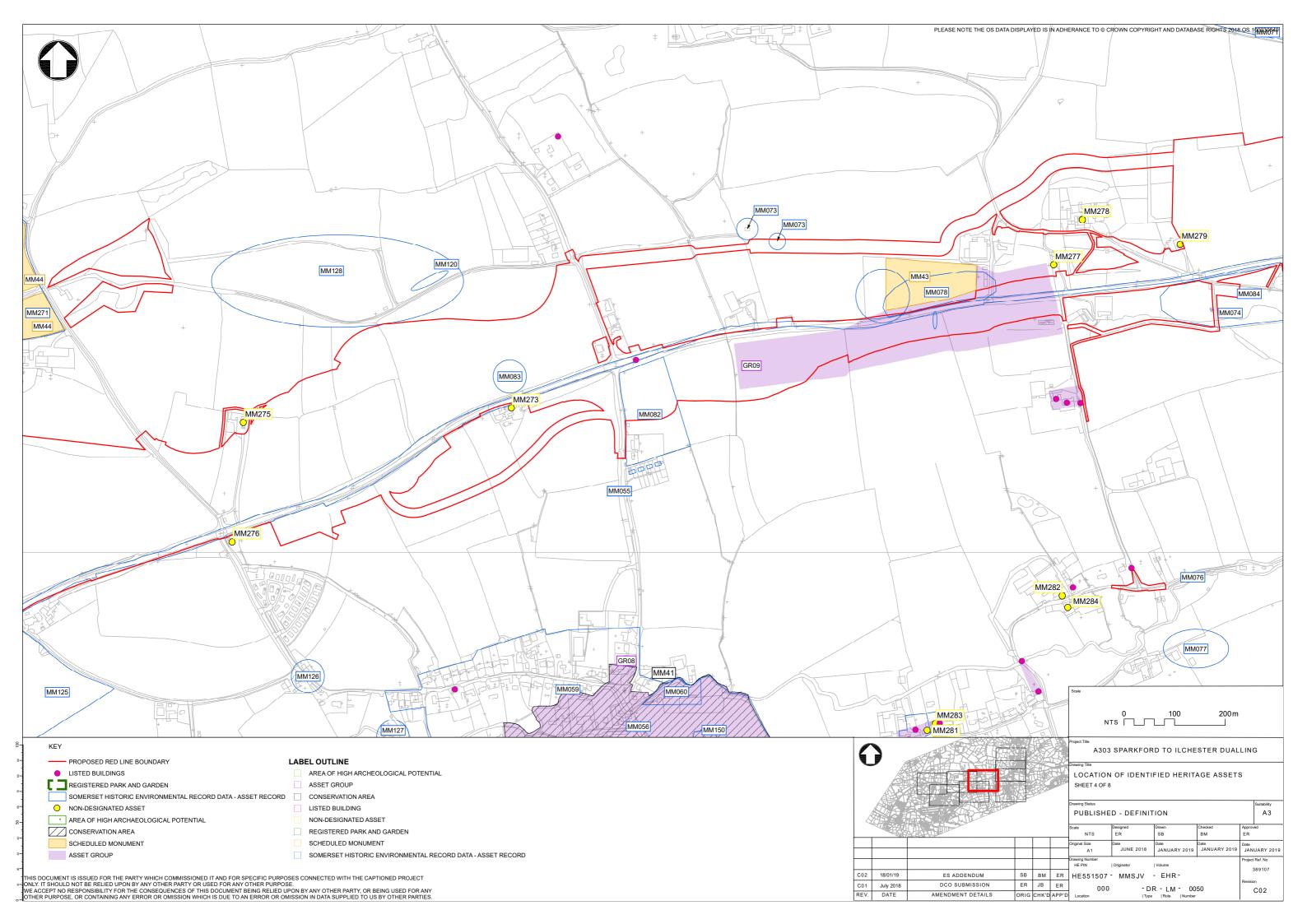
| Group no. | Group name | MM no. | NHLE / HER no. | Name | Grade | Scoped (in / out) | Reasoning |
|--------------|--|-----------|-------------------|---|-------|-------------------------|--|
| | | | | Queen Camel. | | | southern expansion of a medieval settlement. The asset is considered too far from the scheme to be impacted. |
| N/A | N/A | MM053 | 16962 | Evaluation (2004) land to rear of Saddler's Cottage, High Street, Queen Camel | N/A | Out | A single evaluation trench in the rear garden of Saddler's Cottage yielded 13th/14th and 18th century features as well as ceramics, metal and other objects dating to these periods. The asset is considered too far from the scheme to be impacted. |
| GR07 | Queen Camel Conservation Area Group | MM054 | 54443 | Pound, Queen Camel | N/A | ln | The asset is a pound marked on a historic village map. However, this asset lies too far from the scheme to be impacted. Additionally, it lies within the Queen Camel Conservation Area (MM40) and will be considered as part of the assessment for MM40. |
| N/A | N/A | MM274 | 52354 | Wales Farmhouse, Church Path (North side), Wales | N/A | Out | Barn originally belonged to Cleeve Abbey. Dates from the mid 15th century and retained its original cruck-framed roof until conversion to cottages. Converted to residential use c.1980. The asset is considered too far from the scheme to be impacted. |
| N/A | N/A | MM275 | 52356 | Row of cottages, about 10m north-east of Wales Farmhouse, Church Path (North side), Wales | N/A | Out | Detached farmhouse. C17 and later. Local lias stone cut and squared, Ham stone dressings; thatched roof between coped gables; brick end chimney stacks. Barn. Probably C18. Local lias stone cut and squared; double Roman clay tile roof between coped gables, with gabletted finial to west end. The asset is considered too far from the scheme to be impacted. |
| GR08 | West Camel Conservation Area | MM057 | 57192 | Evaluation (2000), Church Path, West Camel | N/A | In | Row of cottages, originally 3, currently 2. C15 and later. Local lias stone cut and squared. Thatched roof coped on west gable, plain to east; brick chimney stacks. This asset encompasses the current West Camel Conservation Area (MM41) and includes several archaeological assets. |

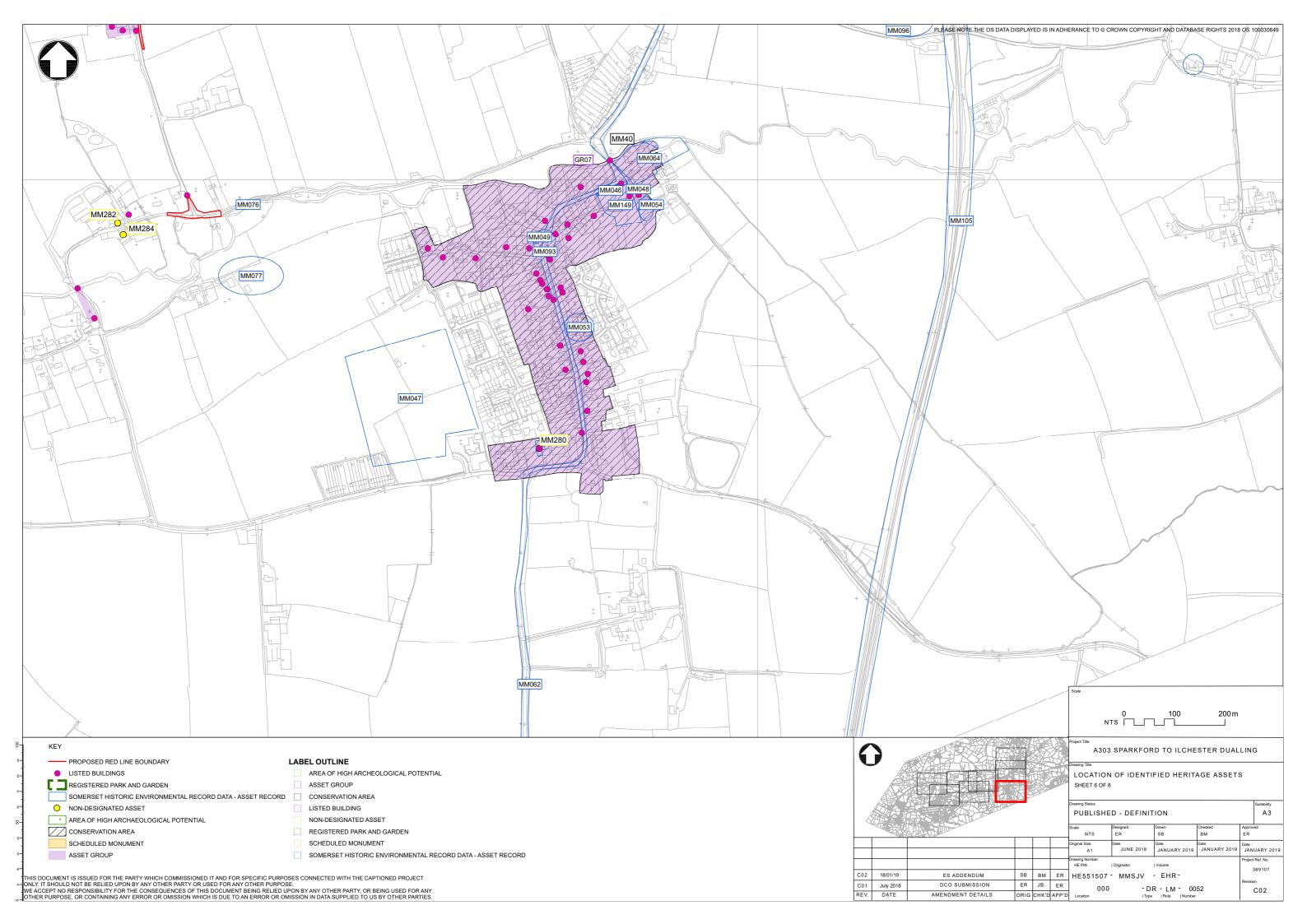
| Group no. | Group name | MM no. | NHLE / HER no. | Name | Grade | Scoped (in / out) | Reasoning |
|--------------|--|-----------|-------------------|--|-------|-------------------------|--|
| GR08 | West Camel Conservation Area | MM059 | 55874 | Medieval village, West Camel | N/A | In | The asset is the medieval village of West Camel was mentioned in Domesday Book and has two main elements: the nucleus of medieval occupation around the church and the road running west from this. This asset encompasses the current West Camel Conservation Area (MM41) and includes several archaeological assets. |
| GR08 | West Camel Conservation Area | MM060 | 54638 | Higher flour mill, Queen Camel | N/A | In | This asset is formed of the remains of a mill have been incorporated into a garden and survive covered in ivy with the leat and stream visible either side. This asset lies within the West Camel Conservation Area (MM41) and will be considered as part of the assessment for MM41. |
| GR07 | Queen Camel Conservation Area Group | MM150 | 54633 | Church of All Saints and churchyard, West Camel | N/A | In | The asset is a graveyard and 14 th century church in use since the medieval period. The asset lies within the Queen Camel conservation area (MM40) and will be considered as part of the assessment for MM40. |
| N/A | N/A | MM047 | 31921 | Geophysical survey (2012) | N/A | Out | A fluxgate gradiometer survey identified a series of parallel linear anomalies that indicate ploughed ridge and furrow, 2 other linear features and a pit that may contain burnt material. The asset is considered too far from the scheme to be impacted. |
| N/A | N/A | MM062 | 24643 | Turnpike Road Sparkford Hill, Sparkford, to Marston Inn, Marston Magna | N/A | Out | A turnpike road of the Ilchester Trust. The asset is considered too far from the scheme to be impacted. |
| GR07 | Queen Camel Conservation Area Group | MM064 | 54439 | Mill, Queen Camel | N/A | In | This asset is a watermill marked on a historic Greenwood's map. The asset lies within the Queen Camel Conservation Area (MM40) and will be considered as part of the assessment for MM40. |
| N/A | N/A | MM076 | 54440 | Black well, Black Well Lane, | II | In | This asset is a medieval well cistern on the river bank, consisting of a lias stone enclosure. It probably formed a focal point of the old village of Queen Camel which was largely destroyed by a fire in 1639. The |

| Group no. | Group name | MM no. | NHLE / HER no. | Name | Grade | Scoped (in / out) | Reasoning |
|--------------|--|-----------|-------------------|---|-------|-------------------------|--|
| | | | | Queen Camel | | | distance from the scheme suggests there will be a negative impact on the setting of the heritage asset. |
| N/A | N/A | MM077 | 54438 | Mill, W of Queen Camel | II | In | Buried archaeological water mill. There is the potential for a negative impact on the asset. |
| N/A | N/A | MM087 | 26103 | Watching Brief (2007), Churchyard of St Barnabas, Queen Camel | N/A | Out | A watching brief of a narrow trench across the northern part of the graveyard identified nothing of archaeological significance. The asset is considered too far from the scheme to be impacted. |
| GR07 | Queen Camel Conservation Area Group | MM093 | 54437 | Village cross site, Hazlegrove | N/A | In | A village cross in the centre of the village, shown in map in Somerset Record Office. The asset lies within the Queen Camel Conservation Area (MM40) and will be considered as part of the assessment for MM40. |
| N/A | N/A | MM276 | N/A | Eyewell Farm | N/A | In | A farmhouse and associated buildings associated with the 17 th century with 20 th century modifications. The rural and agricultural setting of the assets contribute to the value of the heritage assets, with views across the surrounding fields from the property. |
| N/A | N/A | MM277 | N/A | Stone barn fronting road, Wales Dairy | N/A | ln | A 17 th century barn associated with a detached farmhouse. It was built using local lias stone with a double Roman clay tile roof. The rural and agricultural setting of the assets contribute to the value of the heritage assets, with views across the surrounding fields from the property. |

Heritage Data Set Asset Records

1.1.5 In reference to Appendix C of Appendix 6.1 of Volume 6.3 of the 2018 ES (APP-067), the figures below are the updated versions of the Heritage Data Set Asset Records of the 2018 ES (APP-067). The updates include the addition of receptors newly identified to be within the updated study area.





A2. Visual Baseline and Impact Schedules Technical Note

2.1.1 The proposed changes to the scheme design have resulted in 1 additional visual receptor being identified in addition to those listed in Appendix 7.4 of Volume 6.3 of the 2018 ES (APP-072). The Landscape and Visual Impact Assessment (LVIA) Visual Baseline and Impact Schedules entry for this receptor is contained in Table A2.1 below.

Table A2.1 Visual Impact Baseline Schedules

| Visual Visual rece receptor no. | otor Existing view | Proposed view during construction | Proposed view during operation | Effects on visual receptors |
|---|---|---|---|--|
| Representative with from Ey Well Bungal residential receptor and PRoW WN 2 (High sensit | Bungalow, looking south, comprises an orchard in the southern extents of the property boundary, fence lines and a low hedgerow along the eastern and western property | would be due to the proximity of construction activities and plant required for the junction widening, as well as the encroachment into the southern section of the garden of Eye Well Bungalow, which would bring works closer in view looking south from the property. Small lengths of hedgerow and fence lines would also be temporarily removed from the property as part of the widening works. Short distance direct views would be available from the PRoW WN 23/36 to the construction area and associated activities. Given the localised scale and temporary nature of the works, overall it is considered there would be a Moderate Change in | During operation it is predicted that overall there would be a Minor Change to the magnitude of impact in this view in Year 1. This would be due to the new intersection appearing similar in nature, albeit slightly wider and closer than the baseline view given the works would bring the junction slightly closer to Eye Well Bungalow. This would result in a Slight Adverse effect in Year 1 as any replacement planting would have yet to establish, however any boundary fencing would have been fully reinstated. By Year 15, due to the replacement of lost elements along the property's boundaries (fence line and hedgerow) it is predicted that there would be a minor magnitude of change at worst due to the continued foreshortening of the property garden. This would lead to a slight adverse effect at worst. | Construction: Moderate Adverse Operation: Year 1: Slight Adverse Year 15: Slight Adverse |

A3. Arboricultural Constraints Report

- 3.1.1 The proposed changes to the scheme design have resulted in additional tree constraints being identified within the proposed update of the red line boundary.
- 3.1.2 The contents of Appendix 7.1 of Volume 6.3 of the 2018 ES (APP-069) remain valid with the exception of the additions described in this Addendum Technical Note, described below.

Tree Summary

Summary of existing tree coverage

3.1.3 Additional Category C Trees have been included in the baseline as a result of the proposed changes to the redline boundary. The additions were of 1 individual tree, 1 tree group and 2 hedgerows. The total number of surveyed trees in all categories for the scheme, including the proposed updates to the redline boundary, can be seen in Table A3.1below.

Table A3.1 Total trees surveyed for the scheme

| Tree category | Description | Total number surveyed |
|---------------|---|---|
| Category A | Trees or groups of high quality and value | 2 individual trees |
| Category B | Trees or groups of moderate quality | 9 individual trees and 2 tree groups |
| Category C | Trees or groups of low quality | 6 individual trees, 12 areas of woodland, 13 tree groups and 39 hedgerows |
| Category U | Trees or groups for removal | 4 individual trees |

Annex 3.1 Tree Survey Schedule

3.1.4 The tree schedules within Appendix 7.4 of Volume 6.3 of the 2018 ES (APP-072) will require additional entries as a result of the proposed updates to the redline boundary. The additional entries are set out in Table A3.2 below.

Table A3.2 Tree Survey Schedule

| | | | | Cro | own s | pread | (m) | Cr | row n h | neight | t (m) | | | | F | RPA | | Co | nditions | | BS 5837 | category | | |
|-----|---------------------------|-----------------|--------|-----|-------|-------|-----|-----------------|---------|--------|-------|---|--------|----------------------|---------------|------|-------|------|----------|---------|----------|----------|--|---|
| Tag | Tree type | Life stage | Height | N | E | s | W | 1 st | N | E | s | w | No. of | Stem diameter (m) | RPA | RPA | Crown | Stem | Basal | General | Category | Sub- | Useful remaining contributio n (years) | Comments |
| G15 | Orchard and Ornamental | Semi Mature | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 10+ | 200av | 1. 8a v | 10av | Fair | Fair | Fair | Fair | С | 1 | 20> | A group of small apple trees and garden ornamentals. |
| H38 | Native hedge | Semi- mature | 2 | 1 | 1 | 1 | 1 | 0.1 | 0 | 0 | 0 | 0 | 10+ | 80av | 1a v | 3av | Fair | Fair | Fair | Fair | С | 1 | 20> | Native hedge, predominantly haw thorn and blackthorn with occasional ash, hazel and field maple |
| H39 | Native hedge | Semi- mature | 1.5 | 1 | 1 | 1 | 1 | 0.1 | 0 | 0 | 0 | 0 | 10+ | 80av | 1a v | 3av | Fair | Fair | Fair | Fair | С | 1 | 20> | Mixed native hedge with haw thorn, hazel, field maple, English elm and occasional larger ash. |
| 21 | Sycamore | Semi Mature | 7 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 280 | 3. 4 | 35 | Fair | Fair | Fair | Fair | С | 1 | 40+ | |

Annex 3.2 Root Protection Areas

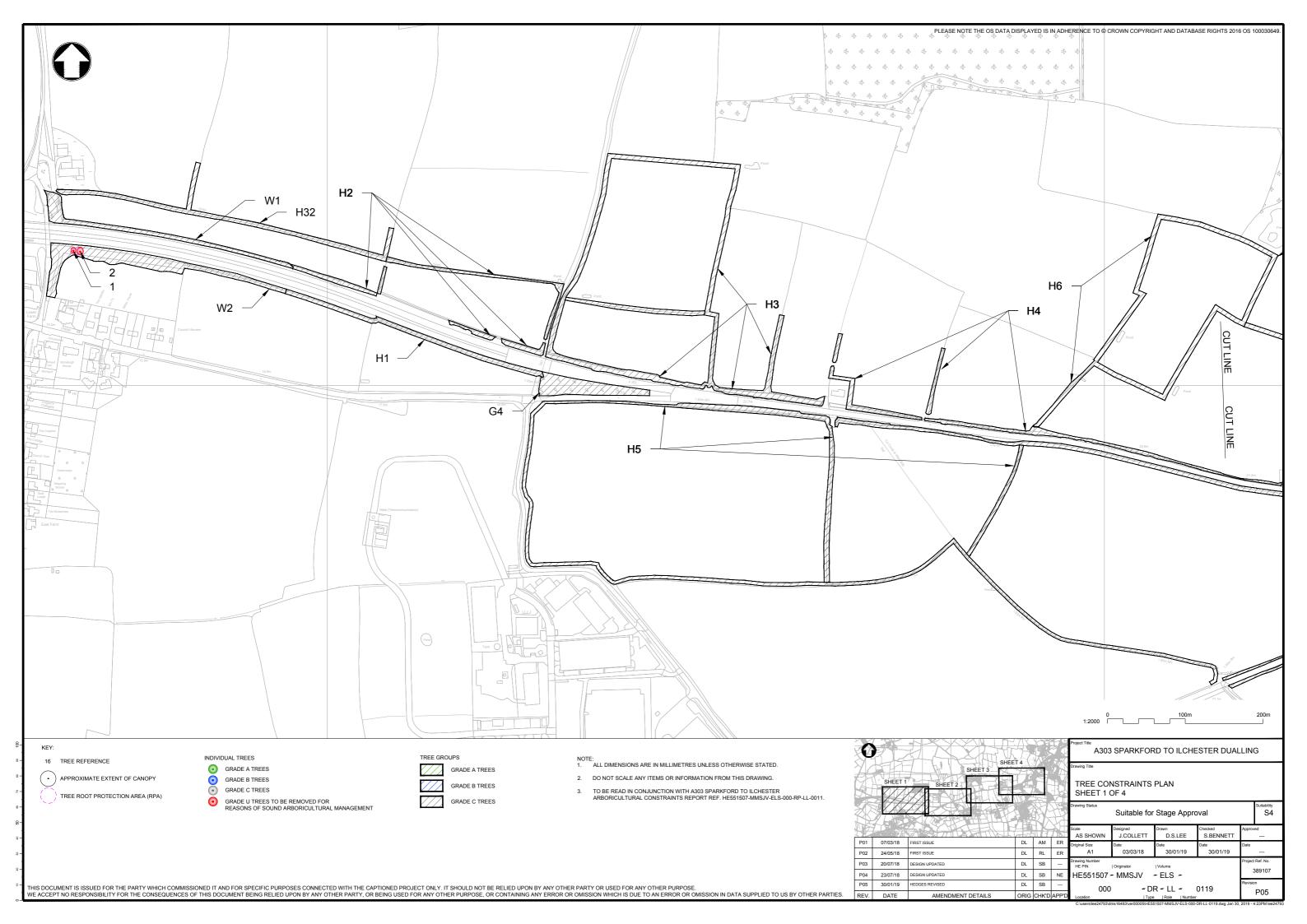
3.1.5 The root protection areas for the additional trees are included in Table A3.3 below.

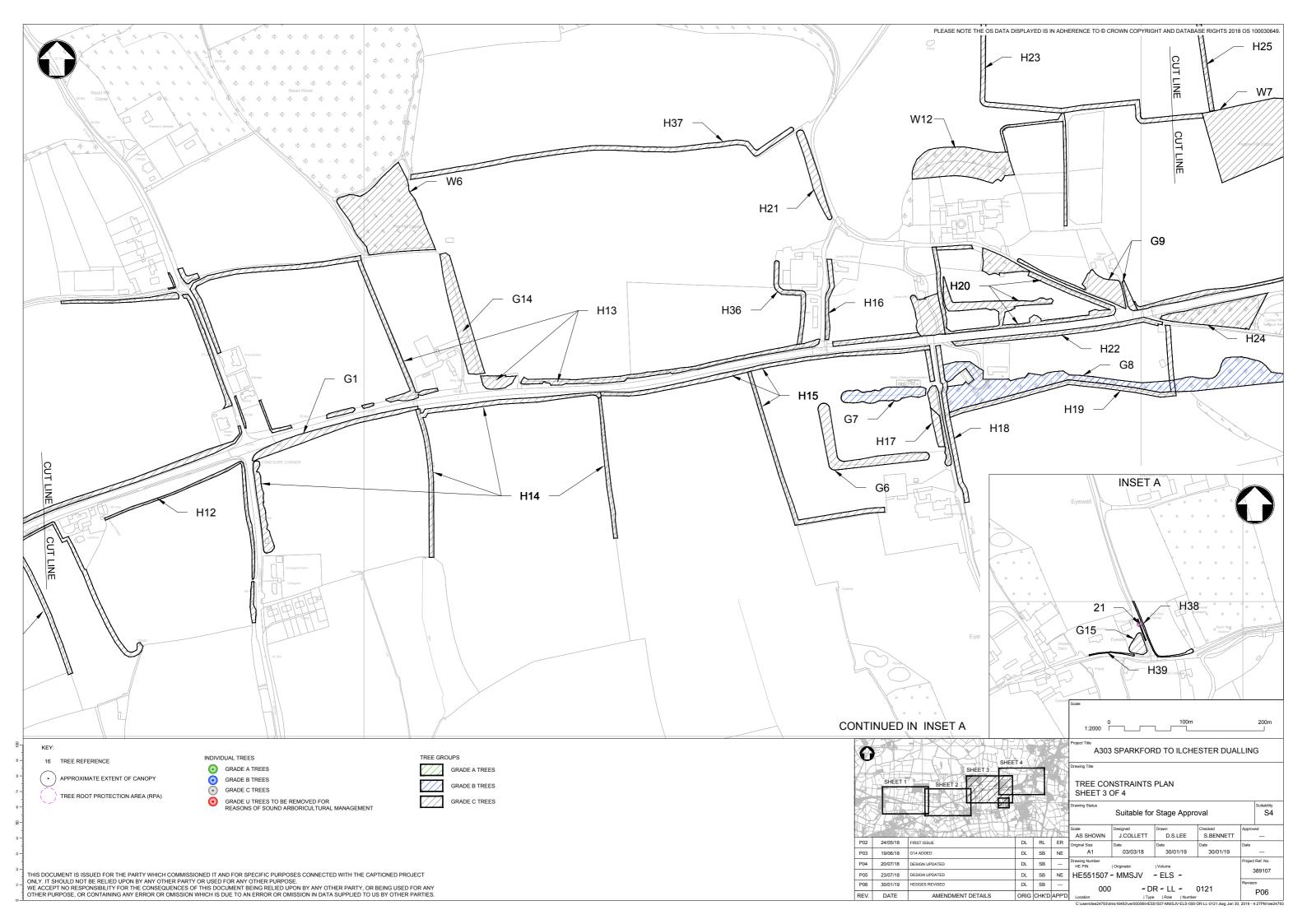
Table A3.3 Root protection areas

| Tree reference | Species | Stem diameter (mm) | RPA circle radius (m) | RPA (m²) |
|----------------|--------------|--------------------|-----------------------|----------|
| G15 | Mixed | | | |
| H38 | Native hedge | 80av | 1av | 3av |
| H39 | Native hedge | 80av | 1av | 3av |
| 21 | Sycamore | 280 | 3.4 | 35 |

Annex 3.3. Drawings

3.1.6 The tree constraints plan drawing Sheet 3 has been updated to include the additional trees, as shown below.





A4. Arboricultural Impact Assessment Technical Note

- 4.1.1 The proposed changes to the scheme design have resulted in additional tree constraints being identified within the proposed updates to the red line boundary. Therefore, the Arboricultural Impact Assessment (AIA) (Appendix 7.3 of Volume 6.3 of the 2018 ES (APP-071)) requires updating. This Addendum Technical Note highlights the amendments to the assessment of trees for removal prior to construction works, trees that require pruning, and trees that require barrier protection during the proposed works, as a result of the proposed design changes.
- 4.1.2 The contents of Appendix 7.3 of Volume 6.3 of the 2018 ES (APP-071) remain valid with the exception of the changes described in this Technical Note below.

Arboricultural Impact Assessment

Recommended Actions

4.1.3 The construction of the scheme must be undertaken in accordance with the Tree Protection Plans contained within Appendix A of Appendix 7.3 of Volume 6.3 of the 2018 ES (APP-071) and the following recommendations in Table A4.1 to enable integration between with the scheme and the existing tree constraints on site.

Table A4.1 Recommended actions for existing trees

| Tree reference | Species | Retention category | ТРО | CA | Recommended actions |
|-------------------|---------------------|--------------------|-----|----|---|
| G6 | Ash / Sycamore | С | N | N | Retain - not in direct conflict with proposed scheme as a result of the proposed updates to the red line boundary. |
| G7 | Ash / Sycamore | В | N | N | Retain - not in direct conflict with proposed scheme as a result of the proposed updates to the red line boundary. |
| G15 | Mixed Ornamental | С | N | N | Fell section – remove the sections of this group which are in direct conflict with proposed scheme, protect retained sections with temporary barrier in accordance with BS5837. |
| H14 | Native hedge | С | N | N | Fell section – remove the sections of this hedge which are in direct conflict with proposed scheme, protect retained sections with temporary barrier in accordance with BS5837. The section for felling will be reduced as a result of the proposed scheme updates. |

| Tree reference | Species | Retention category | ТРО | CA | Recommended actions |
|----------------|--------------|--------------------|-----|----|---|
| H15 | Native hedge | C | N | N | Fell section – remove the sections of this hedge which are in direct conflict with proposed scheme, protect retained sections with temporary barrier in accordance with BS5837. The section for felling will be reduced as a result of the proposed scheme updates. |
| H17 | Native hedge | С | N | N | Retain - not in direct conflict with proposed scheme as a result of the proposed updates to the red line boundary. |
| H38 | Native hedge | C | N | N | Fell section – remove the sections of this hedge which are in direct conflict with proposed scheme, protect retained sections with temporary barrier in accordance with BS5837. |
| H39 | Native hedge | С | N | N | Fell section – remove the sections of this hedge which are in direct conflict with proposed scheme, protect retained sections with temporary barrier in accordance with BS5837. |
| 21 | Sycamore | С | N | N | Fell – tree in direct conflict with proposed scheme. |

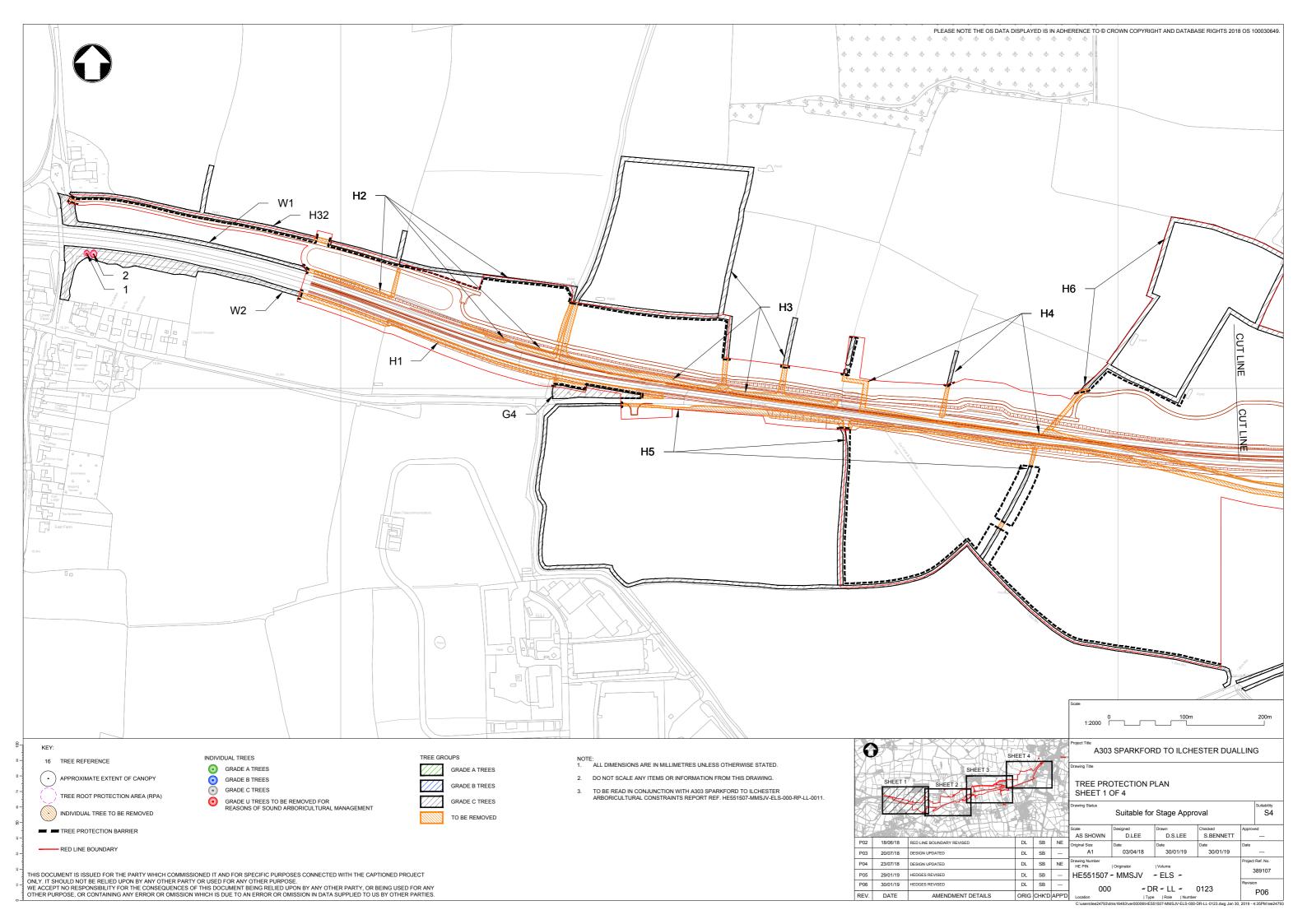
Conclusions

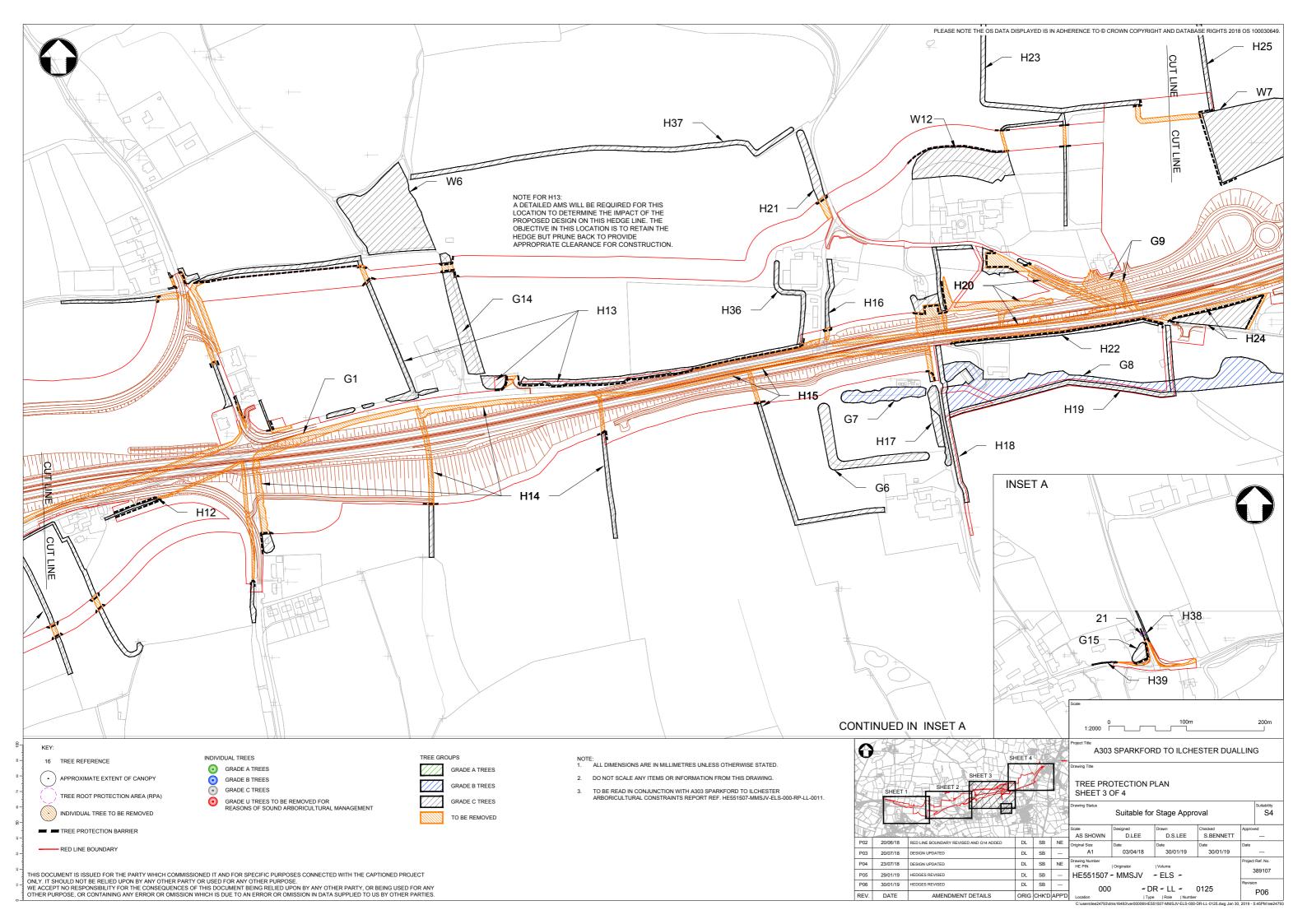
4.1.4 The proposed updates to the scheme design have resulted in an amendment to the number of trees being surveyed and requiring works. The updated conclusions are presented below.

- 4.1.5 Twenty-one individual trees, 39 hedges, 12 woodlands and 15 tree groups have been surveyed as part of the scheme.
- 4.1.6 To facilitate construction of the entire scheme, the following tree works are required:
 - Removal of 14 individual trees: 1 Category A tree, 8 Category B trees, 2 Category C tree and 4 Category U trees.
 - Removal of 8 full hedgerows (Category C) and sections of 23 hedgerows (Category C).
 - Removal of 4 groups (Category C) and sections of 4 groups (Category C).
 - Removal of 1 woodland (Category C) and sections of 6 woodland areas (Category C).

Trees Protection Plan

4.1.7 The tree protection plan drawing Sheet 3 of Appendix 7.3 of Volume 6.3 of the 2018 ES (APP-071) has been updated to include the additional trees, as shown below.





Annex 6.1 Root Protection Areas

4.1.8 The root protection areas for the additional trees are presented in Table A4.2 below.

Table A4.2 Root protection areas

| Tree reference | Species | Stem diameter (mm) | RPA circle radius (m) | RPA (m²) |
|----------------|--------------|--------------------|-----------------------|----------|
| G15 | Mixed | | | |
| H38 | Native hedge | 80av | 1av | 3av |
| H39 | Native hedge | 80av | 1av | 3av |
| 21 | Sycamore | 280 | 3.4 | 35 |

A5. Hedgerow Technical Report Technical Note

5.1 Introduction

- 5.1.1 The information contained within this Addendum Technical Note details the updates to the Appendix 8.3 Hedgerow Technical Report of Volume 6.3 of the 2018 ES (APP-076) as a result of the proposed changes to the scheme design described in Chapter 2 of the ES Addendum.
- 5.1.2 The baseline and the assessment assumptions and limitations reported in Appendix 8.3 of the 2018 ES (APP-076) remain valid and have therefore not been updates for this Addendum Technical Note.

5.2 **Methodology**

- 5.2.1 It was not possible to survey all hedgerows within the scheme red line boundary. This was due to limited or irregular land access. This includes hedgerow 60, which was not surveyed due to denied land access.
- 5.2.2 Due to the proposed changes to the scheme design, two additional hedgerows would be directly impacted by the scheme, which have not been subject to a full hedgerow assessment. However, species present within these hedgerows have been previously recorded during the extended Phase 1 habitat survey completed in March 2016 and November 2018 during a site visit. Therefore, this is not considered to be a substantial limitation.
- 5.2.3 These hedgerows will be re-assessed prior to construction.

5.3 **Results**

- 5.3.1 A total of 76 hedgerows recorded within the survey area were subject to further hedgerow assessments. Of these, 43 hedgerows were found to be species-rich, 30 species-poor, 2 species-poor defunct and 1 hedgerow was not surveyed due to access constraints. 2 additional hedgerows were subject to a lesser assessment, due to proposed changes to the scheme design at this late stage which would result in potential impacts. 1 identified hedgerow was found to be species-poor and 1 was species-rich, although it was not found to be 'important' under the Hedgerow Regulations. Detailed survey results, including species listed for all hedgerows are located with Appendix 8.3 of the 2018 ES (APP-076).
- 5.3.2 Of the 44 species-rich hedgerows, 28 qualified as 'important' under the *Hedgerow Regulations 1997* due to their wildlife and landscape value. Of these, 26 will be subject to impacts due to the scheme. All 'important' hedgerows and their reasons for classification are detailed in Table 3.1 of Appendix 8.3 of the 2018 ES (APP-076).

5.4 **Potential Impacts**

Construction

5.4.1 In total, approximately 10.58 kilometres of hedgerows would require removal. Of this, approximately 2.8 kilometres would be a permanent loss and 7.78 kilometres would be a temporary loss, which would be reinstated following construction. Where species poor and defunct hedgerows are subject to temporary loss, these would be reinstated with species rich hedgerows. The likely linear metres loss of each hedgerow habitat is detailed within Table A5.1below.

Table A5.1: Total length of hedgerows to be removed

| Habitat | Permanent Loss (linear m) | Temporary Loss (linear m) |
|-------------------------------|------------------------------|---------------------------|
| Species rich hedge with trees | 838.04 | 2,209.37 |
| Species rich hedge | 824.57 | 3,244.62 |
| Species poor hedge with trees | 195.27 | 380.84 |
| Species poor hedge | 951.26 | 1,483.51 |
| Defunct hedge | 0 | 454.23 |

- 5.4.2 Of the 10.58 kilometres of hedgerow likely to require removal, approximately 7 kilometres is species-rich, with 4.58 kilometres 'important' under the *Hedgerow Regulations 1997*. The total length of important hedgerows which would be removed has been calculated in Table 4.2 below.
- 5.4.3 In addition, 3.9 kilometres of hedgerow surround site compounds or temporary storage areas. These hedgerows could be subject to possible disturbance during construction, due to construction dust or material storage within root protection areas. This potential for disturbance will be avoided during construction, as detailed within section 5 of Appendix 8.3 of the 2018 ES (APP-076), and as such no impacts are anticipated on these hedgerows.

Operation

5.4.4 A total of 1.8 kilometres of species-poor hedgerow would be replaced with species rich hedgerow, improving the quality of the hedgerow species diversity.

5.5 Mitigation and enhancement recommendations

Further Surveys

- 5.5.1 Updated hedgerow surveys are required for hedges 6 and 60.
- 5.5.2 As a result of the proposed changes to the scheme design, a summary of hedgerow loss and proposed replanting is outlined in Table A5.2.

Table A5.2Summary of Hedgerow loss and proposed replanting (Linear metres)

| Habitat | Total Loss (linear metres) | Proposed Replanting (linear m) |
|---------------------|----------------------------|-----------------------------------|
| Hedgerow | 6,935.47 | 5,562.81 |
| Hedgerow with trees | 3,615.71 | 4,896.05 |
| Total | 10,551.18 | 10,458.86 |

5.6 **Conclusion**

- 5.6.1 Approximately 10.58 kilometres of hedgerows would require removal as part of the scheme. Of this, 2.8 kilometres would be a permanent loss and 7.78 kilometres would be temporary loss; 4.58 kilometres of 'important' hedgerows would require removal, of which 1.1 kilometres would be permanently lost. However, 1.8 kilometres of species-poor hedgerow would be reinstated with a species-rich composition.
- 5.6.2 A total of 7.28 kilometres of species-rich hedgerows would be replanted following construction of the scheme and no connectivity would be severed.

A6. Bat Technical Report Technical Note

6.1 Introduction

- 6.1.1 The information contained within this Addendum Technical Note details the updates to the Appendix 8.4 Bat Technical Report of the 2018 ES (APP-077) as a result of the proposed changes to the scheme design described in Chapter 2 of the ES Addendum.
- 6.1.2 The baseline and the assessment assumptions and limitations reported in Appendix 8.4 of the 2018 ES (APP-077) remain valid and have therefore not been updates for this Technical Note.

6.2 Potential impacts

Confirmed and potential roosts

6.2.1 As a result of the proposed changes to the scheme design, Table 4.3 of Appendix 8.4 of the 2018 ES (APP-077), outlining roosts with the potential to be impacted by construction works is to be amended. These changes are presented below in Table A6.1.

Table A6.1Roosts with the potential to be impacted by construction works

| Roost Location | Description of roost | Distance from proposed Scheme (m) | Activity with the potential to impact roost | Likely outcome of impacts of the proposed Scheme. |
|-------------------------|---|---|--|---|
| WS75059 Tree F008 | Active Myotis sp. Suspected maternity roost | 28 | Increased disturbance from light, noise and vibration from works within temporary works area. | Temporary impact from disturbance, which may cause permanent abandonment. |

6.3 **Summary of impacts**

6.3.1 Table 4.5 of Appendix 8.4 of the 2018 ES (APP-077) provides a summary of the potential impacts on bats as a result of construction of the scheme. Due to the proposed changes to scheme design, the following information detailed in Table A6.2, which was contained within Table 4.5 of Appendix 8.4 of the 2018 ES (APP-077) is now to be removed.

Table A6.2 Predicted nature conservation effects during construction of the scheme

| Activity | Impact | Magnitude of impact in absence of mitigation | Recommended mitigation and enhancements | Magnitude of impact where mitigation and enhancements incorporated | Residual effect where mitigation and enhancements incorporated |
|--|--|--|--|--|--|
| Construction and use of temporary compound and storage areas | Disturbance to potential Myotis sp. maternity roost in tree F008 at WS75059. | Major Adverse | Implement a buffer zone of a minimum of 10m around the tree line that the tree is located within. No works or lighting shall be permitted in this area, with all lighting required to be directed away from the roost. Retention and protection of the treeline the roost located within. | Minor adverse | Slight to Moderate Adverse |

6.4 Conclusion

6.4.1 The majority of roosts identified belonged to small numbers of common bats, however, 1 tree roost was recorded as being used by 38 *Myotis sp.* individuals. This tree is located approximately 28 metres outside the red line boundary of the scheme. Therefore, with mitigation measures in place, as described in section 5 of Appendix 8.4 of the 2018 ES (APP-077), it is unlikely that the scheme would have a significant impact on this roost.

A7. Reptile Technical Report Technical Note

7.1 Introduction

- 7.1.1 The information contained within this Addendum Technical Note details the updates to Appendix 8.7 Reptile Technical Report of the 2018 ES (APP-080) as a result of the proposed changes to the scheme design described in Chapter 2 of the ES Addendum.
- 7.1.2 The baseline and the assessment assumptions and limitations reported in Appendix 8.7 of the 2018 ES (APP-080) remain valid and have therefore not been updated for this addendum Technical Note.

7.2 Potential impacts

Construction

7.2.1 The construction works would temporarily result in the acquisition of medium quality reptile habitat for temporary storage areas or site compound areas. As a result of the proposed changes to the scheme design, amendments to Table 4.1 of Appendix 8.7 of the 2018 (APP-080) are required as habitat loss through temporary acquisition has changed. These amendments are detailed in Table A7.1below.

Table A7.1 Summary of temporary habitat acquisition (Ha) during the scheme construction

| Survey area | Total area of habitat surveyed (Ha) | Habitat type | Reptile habitat quality | Habitat loss through temporary acquisition (Ha) | Percentage habitat loss at the site (%) |
|----------------------------|--|--|-------------------------------|---|---|
| B6, B7, B8 | 0.64 | Poor semi- improved grassland | Medium | 0.42 | 66 |
| C18, C19 | 2.3 | Broad leaved woodland | Medium | 1.36 | 59 |
| C26 | 1 | Poor semi- improved grassland | Medium | 0.35 | 35 |
| D10, D11, D13, D14, D15 | 0.9 | Road verge: poor semi- improved grassland | Medium | 0.86 | 96 |
| D16, D17 | 0.06 | Poor semi- improved grassland | Medium | 0.03 | 53 |

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Areas D16, D17

- 7.2.2 There would be an 53% temporary acquisition of suitable reptile habitat associated with the construction of the scheme, in this survey area which is a reduction from the 84% previously reported.
- 7.2.3 A low population of slow worms, which are of medium conservation importance, has been recorded in this survey area.
- 7.2.4 The removal of habitat during construction has the potential to cause harm or injury to individual reptiles. This area has little or no connectivity to other suitable reptile habitat, as it has the A303 to the north and is surrounded by arable or grazed fields. A capture and translocation programme would be the only effective means of depleting the populations within these areas.
- 7.2.5 By using the mitigation mentioned above (methodology detailed in section 5 of Appendix 8.7 of the 2018 (APP-080)), it is anticipated that the effects from construction would be Slight Adverse.

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A8. Agriculture Impact Assessment Baseline Report Technical Note

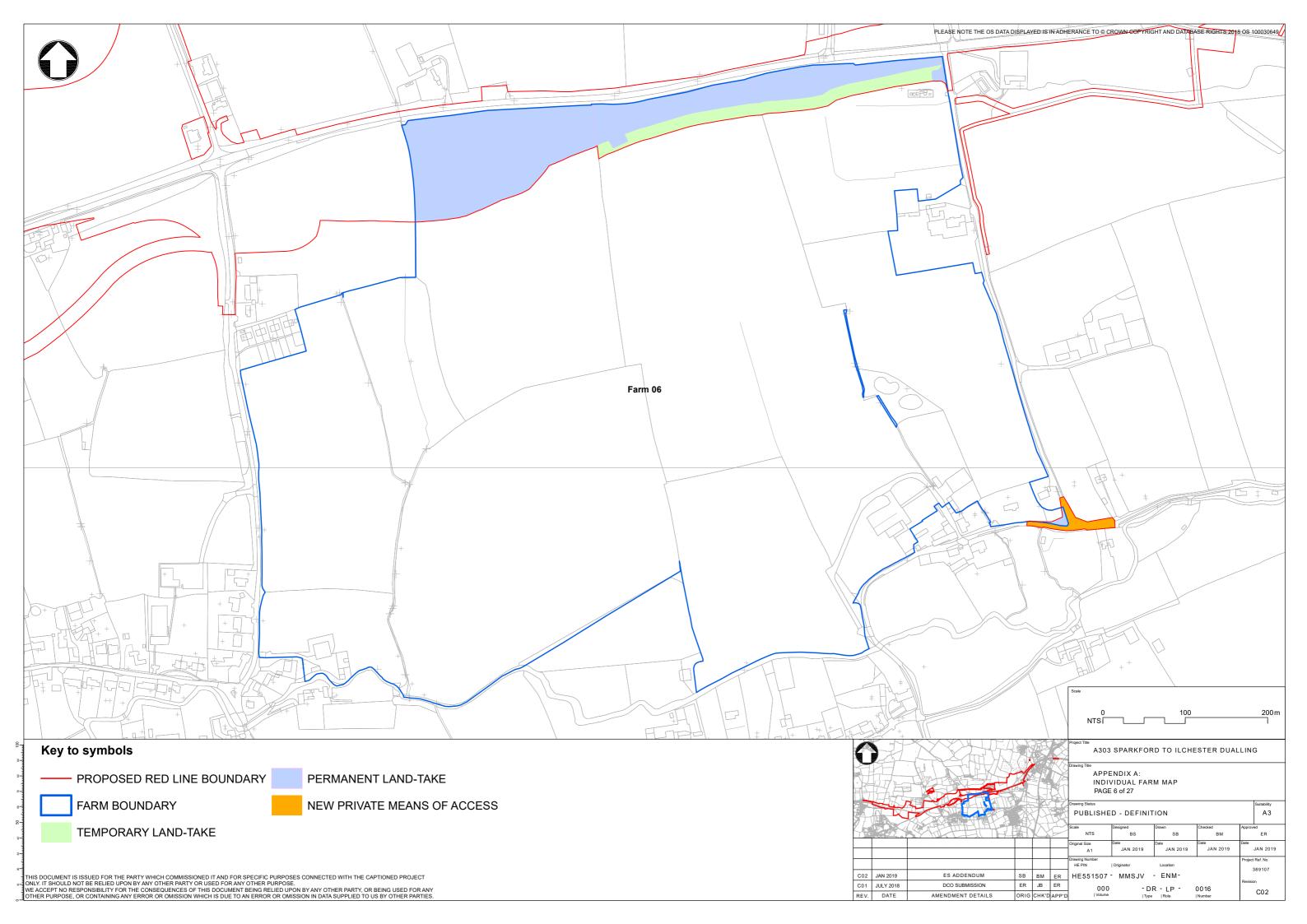
8.1 Introduction

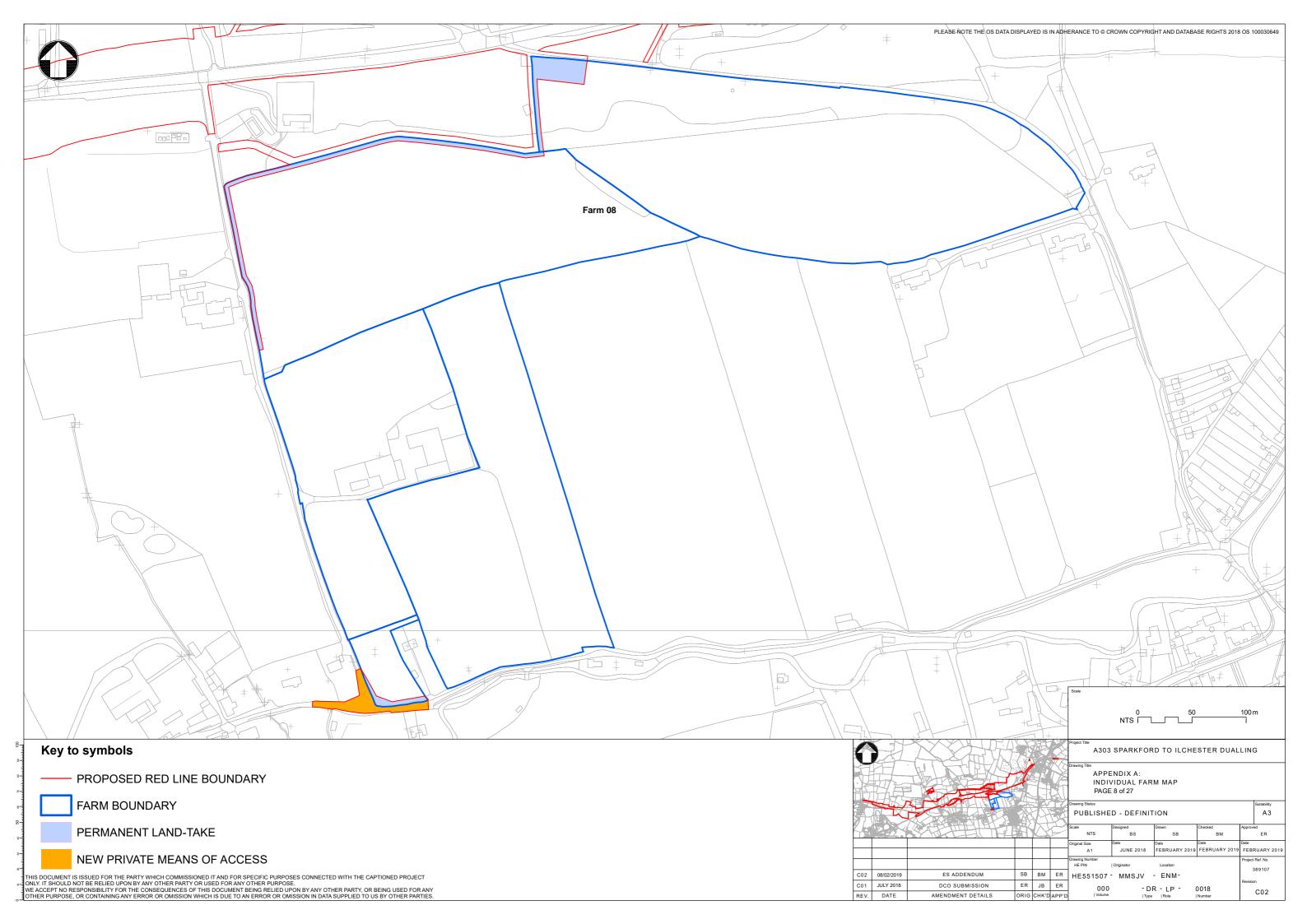
- 8.1.1 The information contained within this Addendum Technical Note details the updates to the Appendix 12.4 Agriculture Impact Assessment Baseline Report of Volume 6.3 of the 2018 ES (APP-096) as a result of the proposed changes to the scheme design described in Chapter 2 of the ES Addendum.
- 8.1.2 The baseline and the assessment assumptions and limitations reported in Appendix 12.4 of the 2018 ES (APP-096) remain valid and have therefore not been updated for this Technical Note.

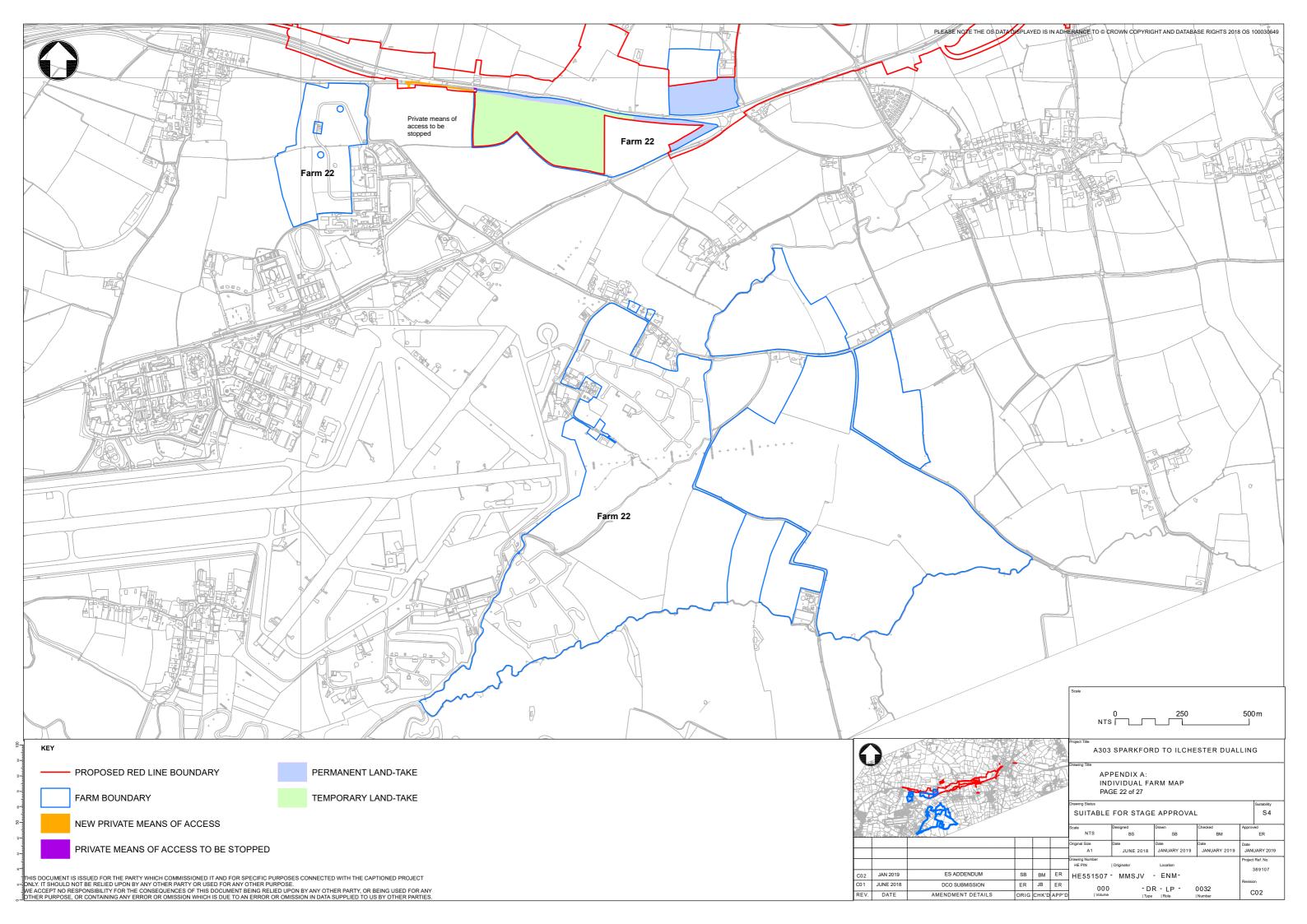
8.2 Individual Farm Drawings

8.2.1 The area of permanent and temporary land take has changed for Farm 06, 08 and 22. The revised drawings can be seen below.

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A9. People and Communities Supplementary Information Technical Note

9.1 Introduction

- 9.1.1 The information contained within this Addendum Technical Note details the updates to Appendix 12.3 People and Communities Supplementary Information of Volume 6.3 of the 2018 ES (APP-095) as a result of the proposed changes to the scheme design described in Chapter 2 of the 2018 ES Addendum.
- 9.1.2 The contents within Appendix 12.3 of the 2018 ES (APP-095) remain valid with the exception of Table A.4 Assessment of impacts on individual farms (of Appendix 12.3 of the 2018 ES (APP-095)), which has been updated below in Table A9.1.

Table A9.1 Assessment of impact on individual farms

| Farm ID | Farm area | Land take | Severance | Husbandry specific | Value | Magnitude of impact | Significance of effect |
|---------|-----------|---|---|--|--------|--|------------------------|
| 06 | >50ha | land-take. | be temporarily severed. One access point would be stopped up and 2 new access points provided | 7.81ha of land used for arable production and as pasture temporarily acquired, which represents 11.57 % of the farm. This would reduce to 3.53ha following construction, representing 5.23% of the farm. | Low | Moderate (reducing to minor following construction): Between 10 and 24% of farm temporarily impacted, and 1 to 9% permanently impacted. The farm is likely to be able to continue with some changes to existing management techniques. | Slight Adverse |
| 08 | >50ha | 0.03ha temporary land-take. 0.31ha permanent land-take. | be temporarily severed in 2. A new access point would be provided permanently. | 0.34ha of land used as pasture temporarily acquired, which represents 1.8% of the farm. This would reduce to 0.31ha following construction, representing 1.5% of the farm. | Medium | Minor: Between 1 and 9% of farm temporarily and permanently impacted. Slight changes to existing management techniques would be required. | Slight Adverse |
| 22 | >50ha | 10.01ha temporary land- take. 4.41ha permanent land-take. | No severance of field parcels. Two access points would be stopped up and new access points provided. | 14.42ha of land used as pasture and arable land temporarily acquired, which represents 6.88% of the total farm area. This would reduce to 4.41ha following construction, representing 2.1% of the farm. | Low | Minor: Between 1 and 9% of farm temporarily and permanently impacted. Slight changes to existing management techniques would be required. | Slight Adverse |