



Trows Farm, Rochdale

Draft GMSF Allocation 29 - Trows Farm, Rochdale

Site Promotion – Technical Survey Summary Report





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Appendices

Appendix A_- Site Location Plan

Appendix B_- Draft Illustrative Masterplan

1 Introduction

- 1.1.1. This report has been prepared by WSP on behalf of GLP and Barratt Homes, to provide further information to Rochdale MBC (RMBC) to support their work in understanding the site, its potential and deliverability. This is being prepared to submit to the GMCA in support of the draft GMSF allocation 29 Trows Farm. As set out in the National Planning Policy Framework (NPPF), the preparation of plans should be underpinned by relevant and up to date evidence that is adequate and proportionate to show the suitability and deliverability of proposed allocations (paragraph 31).
- 1.1.2. GLP, alongside Barratt Homes, are promoting land at Trows Farm, Rochdale for a residential scheme of around 550 dwellings and are in the process of preparing a joint planning application. A Site Location Plan is enclosed at Appendix 1.
- 1.1.3. A significant amount of baseline survey work has been carried out at the site which is now informing the design evolution of the scheme. E*SCAPE has been appointed to prepare an illustrative masterplan looking at the site constraints and opportunities, taking a bottom up approach in understanding these constraints and opportunities to work out what the site can deliver and how best to maximise its development potential.
- 1.1.4. An Environmental Impact Assessment (EIA) Screening Request for a scheme of up to 600 dwellings has been submitted to the Council who subsequently responded confirming that developing the site for 600 dwellings will not give rise to significant effects on the environment and that the proposal is not EIA development.
- 1.1.5. The purpose of this report is to provide a summary of the technical work carried out to date, which will, in due course, support the forthcoming planning application at the site. It re-iterates the site's deliverability and demonstrates that there are no site constraints preventing residential development being delivered on the site in the short term.
- 1.1.6. As set out previously in response to consultation on the draft GMSF, delivering housing at the site will result in significant economic, social and environmental benefits to the local area and community, helping to boost the Castleton area of Rochdale. This represents a real opportunity to widen housing choice in a suitable and sustainable location and boost Rochdale's overall delivery of housing.

2 Site Deliverability

- 2.1.1. The deliverability of the site for housing was set out in detail in representations towards the draft GMSF consultation in 2019. RMBC and the GMCA will already have a copy of this information so we do not propose to repeat that here. However, this information can be provided upon request if necessary.
- 2.1.2. Instead what follows is a summary of the further baseline survey work and masterplanning which has been carried out to date and has informed the latest version of the draft illustrative masterplan. The continued evolution of the illustrative masterplan is discussed further in section 3 and a copy is attached at Appendix 2.
- 2.1.3. The summaries provided below demonstrate that there are no technical constraints which cannot be suitably mitigated which would prevent the site being developed for around 550 houses in the short term.

2.2 Landscape and Visual Appraisal

- 2.2.1. PGLA has prepared a Landscape and Visual Appraisal to analyse potential effects that proposed housing at the site may have on the surrounding landscape and visual amenity.

Conclusions and recommendations

- 2.2.2. There is a Public Right of Way (PRoW) which runs along the western boundary and also along Cripple Gate Lane to the north of the site. Both of these PRoWs are to be retained and utilised to provide linkages from the site to the surrounding local area.
- 2.2.3. The initial Appraisal does note that there will be an immediate change in the character of the site as the proposed housing and associated infrastructure is introduced. However, there is potential for any impacts being reduced over time as the planting and landscape framework within the site matures.
- 2.2.4. Whilst the landscape strategy is still evolving, there are opportunities to incorporate the following key elements:
- Retention of existing elements that make up the site's green infrastructure, where possible, such as trees along the boundaries and integrating these into the development, giving the scheme an immediate sense of maturity;

- Ensuring gaps in the existing hedge along the boundaries, in particular the A627(M) are in-filled with native trees and hedge planting. Evergreen species of holly could be included in the mix to provide effective screening through the winter months;
- Ornamental and native planting to be planted in and around the proposed development to soften the effects of the built form; and
- High quality mixed native tree and hedge planting will be planted in and around potential areas of Public Open Spaces (POS) along the streets. There is the potential to not only aesthetically enhance the existing settlement edge of Castleton but increase biodiversity levels and recreational and ecological value of the site.

2.2.5. Whilst the view from the PRoW along the northern boundary (Cripple Gate Lane) looking southwards will change by the introduction of housing at the site, it will not change the overall character of the PRoW which is already very closely related to existing development. The industrial estate is immediately adjacent to the north with a large industrial warehouse already situated closely to the PRoW. Furthermore, there is existing housing along Leander Drive and around Hillcrest Road to the west and the motorway to the east.

2.2.6. It is proposed a landscape buffer is incorporated between the proposed development parcels and PRoW to soften the development edge facing the PRoW.

2.2.7. Whilst final site levels are still being determined (discussed separately below), it is likely that any re-grading will result in the site falling away east to west from the motorway. There is existing verge leading down from the site to the motorway which is covered in parts by existing vegetation. Much of this vegetation already extends higher than the current ground level of the site so will assist in screening any development along this boundary. To strength this buffer, it is proposed that a landscape strip is provided between proposed development parcels and the site boundary.

2.2.8. The motorway is divided into two carriageways with a landscaped central reservation between the two. It sits in a dip between the site and land on the opposite side. The verge leading up to land on the opposite side is heavily landscaped and screened. Therefore, already obscuring any views of the site from the land beyond to the east.

- 2.2.9. Similarly, looking northwards across the site from the south, there is already a very substantial landscape buffer that screens any land northwards. Therefore, even though the re-grading is likely to result in the site falling north to south towards the motorway, development at the site will be substantially well screened. Enhancements are also proposed along the southern boundary of the site to the existing ecological corridor and to provide linkages with the green infrastructure network through the site.
- 2.2.10. The linear park proposed along the western boundary of the site creates a high-quality landscape feature within the development acting as a buffer between the existing properties along Leander Drive but also offering an opportunity for recreational space.
- 2.2.11. Whilst the proposed development is likely to have an imperceptible effect on the broad landscape character, the landscape proposals are considered to be potentially beneficial as they will reflect the native species of the surrounding landscape, development follows the landform and proposals are consistent with the Landscape Character description for the Urban Fringe Farmland Landscape Character Type.
- 2.2.12. Overall, the long-term residual effects of the development are not likely to exceed minor in terms of significance to the overall landscape and visual amenity. Potential adverse effects that have been identified to be present at the operational stage, especially on site and its setting will be reduced and offset by the mitigation provided in the potential planting scheme described within the Landscape Strategy. Therefore, the site is able to accommodate around 550 new homes without causing undue harm to the landscape character and visual amenity of the site and surrounding countryside and footpath network.

2.3 Drainage

- 2.3.1. RSK has investigated drainage options for the developed site and discussed these with RMBC and the Environment Agency (EA).
- 2.3.2. Ordnance Survey (OS) mapping shows several water features on the site, which include a series of springs and surface water channels. Work has been carried out to understand the nature of these features so that they can be incorporated into the evolving development proposals.

- 2.3.3. As the proposed development of the site will require significant earthworks, which include the removal of soils from high spots and its re-use as backfill in low-spots, this backfill material has the potential to cover areas marked by the OS as springs and some channels that allow water to drain. Monitoring data has been collected to assist with the classification of the status of these channels and incorporation into the proposed development.
- 2.3.4. RSK undertook fieldwork over several months to confirm the hydrologic regime on the site, the reported data is being feed into designing an appropriate engineering solution to manage water during construction works and following completion of the development.
- 2.3.5. The monitoring work concludes that the extent of tertiary watercourses within the site boundary concurs with historical mapping and EA mapping. Only negligible ground water base flows were observed upstream from these positions coming down from the areas of the springs that are considered to be further reduced by the re-profiling of the site to enable development. As such, the provision of a granular layer can be incorporated into the re-grading of the site to maintain the nominal flows that may still remain. In addition, the tree lined channel originating in the centre of the site will be retained and incorporated into the site drainage, alongside the channel at the end of the eastern valley to allow a continued contribution to the flow off water at the bottom of the valley.
- 2.3.6. Detailed drainage design will need to be undertaken as part of the detailed design work for the housing areas; however, it is anticipated that a 300m diameter perforated pipe would provide ample capacity for anticipated flows. Granular surround for the pipe is likely to vary along the pipe route to accommodate varying ground conditions. It will be necessary to excavate soils with a poor engineering quality and replace them with more appropriate material and this may include granular soils that are site won and that could be hydraulically linked to the pipe and enhance the intercepting ability and hydraulic performance of the proposed scheme.
- 2.3.7. Infiltration through soft landscaped areas will also occur but the volume of water entering the ground will be lower than seen at present. Certainly, the peaks in flow will be removed and the rate of infiltration will be significantly reduced when compared to the direct rainfall seen pre-development. Consequently, once the development is completed, the flow along the eastern valley will be equal to the baseline flow, which is estimated to be 0.2 to 0.5l/sec.

- 2.3.8. The proposed development, once completed, will utilise a gravity based surface water drainage system to intercept rainwater in surface water drains from roads, paths and driveways as well as buildings. The intercepted water will be diverted to a site drainage scheme, which incorporates compensation features to control flow rates, with water then entering attenuation ponds at the southern end of the site.
- 2.3.9. Therefore, the overall surface water drainage strategy is established based on a SUDs and gravity led system. Detailed drainage will be worked up for each phase of the development.

Foul drainage

- 2.3.10. Whilst the foul drainage scheme is still evolving, two options are currently being explored, both of which United Utilities has confirmed are acceptable.
- 2.3.11. The first is to discharge northwards to Cowm Top Lane, which would require two adoptable pumping-stations, one for the south-east corner and one for the south-west corner. The second is to discharge to the gravity sewer along Trows Lane from the south west corner of the site, this would require an adoptable pump-station in the low-lying south-eastern corner of the site.
- 2.3.12. As further work is completed, the proposed foul drainage solution will be finalised.

2.4 Noise

- 2.4.1. The Noise Impact Assessment survey work was undertaken by Resource and Environmental Consultants (REC) Limited in January 2019 and October 2019. Noise modelling software was used to inform an initial noise risk assessment in accordance with ProPG.
- 2.4.2. Following this a full assessment was undertaken to consider transportation noise, which involved the implementation of acoustic equipment on the site and surrounding areas. This was undertaken in accordance with the British Standard BS8233: 2014: Guidance on Sound Insulation and Noise Reduction for Buildings and the World Health Organisation's (WHO) 'Guidelines for Community Noise'.

Conclusions and recommendations

- 2.4.3. Key noise sources impacting upon the site are vehicles using the M62 and A627(M). The initial noise risk assessment determined that the site is subject to varying levels of impact ranging from low risk to high risk due to noise from M62, and the A627(M). During both daytime and night time, the most sensitive areas of the site are those closest to the Motorways.

- 2.4.4. The assessment is based on robust and worst-case assumptions and has shown that, in principle, there should be no adverse impact upon future dwellings at the site as a result of the existing noise sources following the inclusion of appropriate mitigation measures which can be incorporated at the detailed design stage.
- 2.4.5. The report recommends that good acoustic design and mitigation strategies are incorporated into the final scheme, particularly concerning proposed dwellings located closest to the M62. It suggests that dwellings should front the roads with associated gardens to the rear. Additional protection can be utilised in the form of barriers and garages in between dwellings, with gardens given further protection through the use of surrounding barriers where required.
- 2.4.6. Internally, whilst standard thermal double glazing will be sufficient for some areas of the site, higher specification glazing may be required for habitable rooms located close to the boundary with the M62. It is also suggested that alternative ventilation for habitable rooms is likely to be required where habitable rooms cannot be orientated away from the sources.
- 2.4.7. Introduction of landscape buffer along the boundaries adjacent to the Motorway will also assist in reducing the level of noise within the site.

2.5 Ecological Assessment

- 2.5.1. A Preliminary Ecological Appraisal was undertaken of the site by Leigh Ecology Ltd, in 2016 (report reference: GLP/16-001D1). This was updated by TEP in December 2018. This collated data gave a useful indication of the distribution and abundance of ecological receptors at the site. Survey work on site was then carried out during 2019 with a follow up site walkover in 2020 to identify the potential for any protected species to be present.

Habitat Assessment

- 2.5.2. The initial assessments were carried out in accordance with the Phase 1 habitat assessment methods (JNCC 20101) and Guidelines for Preliminary Ecological Appraisal (CIEEM 20172).

Preliminary Roost Assessment for Bats

- 2.5.3. A ground-level inspection of all trees within the site, including those along the boundaries, was undertaken to assess their potential to support roosting bats. The inspection was completed concurrently with the 2019 habitat survey.
- 2.5.4. Binoculars were used to search for any field signs of bats or features with bat roosting potential. This was undertaken in line with Bat Conservation Trust (BCT) guidance (Collins, 20163).

- 2.5.5. Moreover, the habitats within and surrounding the survey area were assessed for their potential to support foraging and commuting bats.

Nocturnal Bat Activity Transect & Automated Static Detector Surveys

- 2.5.6. Nocturnal bat activity transect and automated static detector surveys were undertaken in 2019. The surveys were undertaken in accordance with the BCT Guidelines.

Breeding Bird Survey

- 2.5.7. This was carried out in 2019, applying methods based on the standard breeding bird survey and common bird census methods developed by the British Trust for Ornithology (BTO)4.

Reptiles Surveys

- 2.5.8. Reptile surveys were undertaken using a combination of visual searches and the deployment of artificial refugia, in accordance with Natural England guidance. 204 artificial refugia comprising 0.5m² sheets of corrugated metal and roofing felt were placed in suitable habitats across the site.
- 2.5.9. The refugia, when warmed by the sun, provide attractive basking habitat for reptiles. The artificial refugia were initially put out on site on the 26th March 2019, allowing two weeks for them to bed in. Surveyors checked refugia for basking reptiles and conducted a visual search of the site over seven survey visits; between the 12th April and 30th May 2019.

Conclusions and Recommendations

- 2.5.10. The site comprises poor semi-improved grassland with marshy grassland and dense scrub throughout. Small areas of tall ruderal vegetation, continuous bracken, defunct hedgerows and scattered trees are also present.
- 2.5.11. Whilst wildlife species have been identified at the site this does not represent a constraint to the future development of the site. As set out below, there are a range of mitigation measures which can be incorporated into the final layout and landscaping scheme.

Designated Sites

- 2.5.12. There are no implications with regard to designated sites through developing the site for housing.
- 2.5.13. There are three internationally designated wildlife sites within 10km, one nationally designated wildlife site within 2km and two locally designated wildlife sites within 1km of the site. However, there are no direct impacts anticipated as a result of the proposals due to the separation distance between the site and any designated wildlife areas and the presence of well-established barriers (footpaths and existing urban development) between them.

Habitats and Flora

- 2.5.14. The semi-improved grassland habitats on the site have been subject to low intensity grazing and plant species identified are common and widespread with no locally rare species notes. It is not envisaged these habitats would qualify under the National Vegetation Classification (NVC). The amenity grassland, modified neutral grassland, scrub, bracken and tall ruderal habitats are ubiquitous and have relatively low ecological value. The hardstanding and bare ground have no ecological value.
- 2.5.15. To minimise the loss of biodiversity ecologically valuable habitats, including marshy grassland and hedgerows, these should be retained where possible, however, if they are to be lost than consideration will be given to replacement planting within the scheme. The linear park proposed in the western part of the site provides opportunities for incorporating lost habitat as part a wider landscaping scheme.

Bats

- 2.5.16. Whilst the site does have importance for foraging and commuting bats, there were no particular features of importance on the site itself.
- 2.5.17. A sensitive lighting design will be implemented for the scheme to avoid indirect impacts of lighting during construction and post-construction.

Birds

- 2.5.18. The assessment findings indicate that the site is of local significance for breeding birds due to the trees, tall ruderal, scrub and hedgerows around the site perimeter and along field boundaries within the site.
- 2.5.19. It is recommended that trees, tall ruderal, scrub and hedgerows around the site perimeter and along field boundaries within the site should be retained and enhanced where possible to maintain nesting opportunities for birds within the site. If trees are to be removed, consideration will be given to replacement using a range of native species to create a varied vegetation structure to suit a wide range of breeding bird species.
- 2.5.20. A nest box scheme including a variety of nest box types should be undertaken as part of the development, including small nest boxes with holes for bird species.

- 2.5.21. It is suggested that the vegetation clearance should be carried out outside of the nesting bird season (March - August inclusive). If it is not possible to complete works outside of the nesting bird season, a nesting bird check must be carried out by a suitably qualified ecologist no more than 24 hours prior to the works commencing, to establish that no active bird nests will be disturbed or destroyed.

Other Species

- 2.5.22. The Assessment concludes that there will be no significant impacts on amphibians, otter, water voles or white-clawed crayfish as a result of developing the site for housing. The ponds are heavily stocked with fish which would predate on amphibian spawn and offer limited suitability for the other species listed above.
- 2.5.23. There are also no implications with regard to badgers, brown hare, hedgehogs. Due to the level of urbanisation surrounding the site it is not anticipated these species would be encouraged or able to access the site.
- 2.5.24. No reptiles were recorded on site during the presence/absence surveys.

2.6 Mineral Resource Assessment

- 2.6.1. A Mineral Resource Assessment was carried out by Wardell Armstrong in January 2020.

Conclusions and Recommendations

- 2.6.2. The generalised small-scale mineral safeguarding map for the area in the Greater Manchester Joint Minerals Plan indicates that the site is in a Mineral Safeguarding Area for sand and gravel. However, inspection of the more detailed geological map a 1:50,000 scale shows that the superficial deposit on site is actually diamicton (previously called till or boulder clay), which is not a safeguarded mineral.
- 2.6.3. The solid geology is Carboniferous Coal Measures comprising brick clay and coal. However, the quality of the coal and brick clay underneath the site is too small to be worked and the minerals have already been indirectly sterilised by previous residential development to the west of the proposed development site, therefore, is not an economically viable mineral resource.
- 2.6.4. As the diamicton is not a safeguarded mineral resource and the safeguarded mineral resource is of no commercial value, the site meets the requirements of criterion 2 of the mineral safeguarding policy, which means developing the site for housing is acceptable in a Mineral Safeguarding Area.

- 2.6.5. The Mineral Safeguarding Area designation is, therefore, not a constraint to the future development of the site for housing.

2.7 Coal Mining Risk Assessment

- 2.7.1. A Coal Mining Risk Assessment has been undertaken Wardell Armstrong.
- 2.7.2. The risk assessment identifies the principle risks to the proposed development to be the potential presence of coal at extremely shallow depths, and the potential for unrecorded shallow mine workings and unrecorded mine entries. However, this does not represent a constraint to developing the site for housing.
- 2.7.3. The report recommends further intrusive investigation is undertaken. Where a potential mine horizon is identified, stabilisation by drilling and pressure grouting of proposed built footprint (including estate roads) is likely to be necessary in order to facilitate secure development of the site.

2.8 Ground Conditions

- 2.8.1. A Phase I Geo-Environmental Appraisal, Preliminary Phase I and II Contamination and Geotechnical Assessment have been carried out by Smith Grant. Follow up intrusive investigation works were carried out in accordance with BS 5930:2015.

Conclusions and Recommendations

- 2.8.2. The historical use of the site and the immediate surrounds appears to have been mainly agricultural. No significant potential natural or man-made sources of pollution have been identified within or adjacent to the site. Therefore, there is a generally low level risk associated with ground contamination within the site.
- 2.8.3. Apart from some relatively minor areas of tipping (largely inert soil wastes) and a more widespread area of reworked natural soil fill, the site soils appear to be natural in origin and uncontaminated.
- 2.8.4. The tip areas require some further delineation and assessment, however, within the context of the overall scale of developing the site, these present relatively minor constraints can readily be addressed during the preparatory earthworks required on the site.
- 2.8.5. As a contingency, the only foreseeable constraints relating to the environmental status of the site might require the localised use of clean soil cover to gardens or gas protection measures in buildings, although this is not anticipated based on available information.

- 2.8.6. Furthermore, based on the available evidence, potential impacts to sensitive receptors, including ground and surface waters, neighbouring residential properties businesses and occupiers, and local ecology, arising from anthropogenic impacts on ground conditions within the site may be adequately managed through the use of normal environmental controls, occupation hygiene measures and practices that would be associated with any civil engineering earthworks project of a similar scope and programme.
- 2.8.7. A high-pressure gas pipeline crosses the western part of the site and will require a stand-off from built development. To accommodate the presence of the pipeline and the required stand-off zone, it is proposed that a linear park area is located along the western boundary of the site, ensuring this area remains free from future residential development.

2.9 Topography

- 2.9.1. The site is undulating and as such requires re-grading in order for it to be ready for development. Survey work is still on-going to determine the precise proposed external levels and the extent of the cut and fill exercise required. However, based on the work carried out so far, initial observations on the preliminary findings on what re-grading might be required can be made.
- 2.9.2. Taking a horizontal (east to west) cross section of the northern part of the site, whilst it is envisaged there will be a raising of site levels in places, overall, the levels in this part of the site would not extend beyond the highest point of the current site levels. The proposed development platform in this part of the site is below the current height of the site at both the eastern and western boundary.
- 2.9.3. Across the southern part of the site (again taking a horizontal cross-section east to west), based on the work carried out to date, there is less of a need for extensive re-grading in this part of the site, with proposed levels tending to follow fairly closely what is existing. Apart from an area in the western part of the site which will need to be raised to ensure the development platform has a gradual rise as oppose to a steep incline.
- 2.9.4. Similarly to the re-grading in the northern part of the site, it is not envisaged that site levels would rise above the current highest level.
- 2.9.5. Looking at the site north to south (in the western part of the site), there will need to be a re-grade of levels to create a development platform with a more gradual rise. This will require increasing current levels as oppose to cutting. The most marked difference is likely to be in the centre of the site.

2.10 Flood Risk

- 2.10.1. In accordance with the EA Flood Risk Maps, the site is shown as being located wholly within Flood Zone 1. Therefore, the proposed development will not have an adverse impact on flood risk.
- 2.10.2. Despite the designation of the site as Flood Zone 1, due to it being over 1ha in size, future applications will be accompanied by a Flood Risk Assessment.

2.11 Air Quality

- 2.11.1. The M62 and A627(M) to the south of the site are designated Air Quality Management Areas (AQMA) and parts of the site may lie within the edges of these AQMA. In-design mitigation measures will be incorporated within the development to ensure sensitive receptors are not potentially exposed to poor air quality.
- 2.11.2. Access to the site is proposed to be provided from Crown Top Lane to the north off Queensway, the A664. From here development related traffic will be distributed on the wider local road network. Given the nature of the local road network, absence of identified AQMA along the likely affected network and set-back distances of sensitive receptors from these roads, the exhaust emissions associated with the additional traffic generated by the development are not expected to result in significant adverse impacts.
- 2.11.3. As previously set out, activities during the construction phase of the development will be controlled through the provisions of a Construction Management Plan to minimise any potential impacts, including those relating to dust.
- 2.11.4. An Air Quality Assessment will be submitted with the planning application which will undertake a detailed assessment of potential air quality impacts and effects in relation to construction dust and vehicle exhaust emissions. However, it is not considered that the development will result in significant adverse environmental effects in relation to air quality and residential amenity.

2.12 Traffic and Highways

- 2.12.1. SCP is preparing a Transport Assessment (TA) which will be submitted in support of future applications at the site.
- 2.12.2. The working draft TA has been prepared in accordance with the now superseded Department for Transport (DfT) March 2007 "Guidance on Transport Assessment" document and NPPF. In addition, the specific scope has been agreed with the Council's Highways Department through submission of a Scoping Report and subsequent discussions.

Proposed Access

- 2.12.3. Vehicular access to the site will be provided from Cowm Top Lane (off the A664 Queensway) by extending the existing road to the development site.
- 2.12.4. As part of the road extension works, traffic calming and drainage improvements will be provided to the existing section of Cowm Top Lane, to enable it to be adopted, as previously agreed with the Council.
- 2.12.5. This will involve the introduction of a number of raised junction tables at the existing accesses to the industrial units, along with areas of anti-skid surface treatment to help reduce traffic speeds. It is also proposed that linear drainage channels are introduced across the full width of the road at the top of each of the raised tables, which will connect into the existing surface water carrier drains. The introduction of raised tables will also help to slow the flow of water down Cowm Top Lane.
- 2.12.6. The access will link with the existing PRoW running along Cripple Gate Lane (which provides the northern boundary of the site).
- 2.12.7. Trows Lane to the west of the site will provide an emergency access point for the entire site.

Sustainable Travel

- 2.12.8. Access between the site and local areas by non-motorised modes has been assessed against typical threshold distances.

Walking and Cycling

- 2.12.9. Within a 2km walking distance from the site there are numerous neighbourhoods including Castleton, Kirkholt, Balderstone and Trub, alongside a number of local amenities. These include two primary schools (St Gabriels RC Primary School and Castleton Primary School), a Co-Op and NISA convenience stores, two pharmacies, two dentists and two GPs.
- 2.12.10. The routes from the site to these services are generally along well surfaced and street-lit footways.
- 2.12.11. In terms of cycle accessibility, the National Cycle Route (NCR) 66 is located 970m north of the, with a number of other NCRs located in close proximity to the site. These routes provide links to central Manchester, Leeds, York, Beverley and Kingston upon Hull. A number of local cycle routes are also available near the site including dedicated cycle lanes and unpaved trails.
- 2.12.12. A few cycle infrastructure improvements have been announced around Castleton which includes improvements proposed along the canal and Cripple Gate Lane/Hillcreast Road.



Public Transport

- 2.12.13. The nearest bus stop to the site is located on A664 Queensway, approximately 710m from the site. Other bus stops are also in the vicinity of the site, around 10minutes walk away. These local bus services provide journeys to Castleton, Manchester and Rochdale.
- 2.12.14. Castleton Railway Station is approximately 900m west of the site and within walking distance. The Station provides journeys to Rochdale, Clitheroe, Blackburn and Manchester.

Highway Impacts

- 2.12.15. The impact of traffic arising from developing the site for housing has been tested looking at the proposed access and at two junctions on either side, the A664 Queensway/A664 Edinburgh Way and A664 Manchester Road/A664 Queensway junctions.
- 2.12.16. The modelling demonstrates that the proposed development can be accommodated without detriment to the operational capacity or safety of the local highway network.
- 2.12.17. Therefore, there is no reason on highway or transportation grounds as to why the site cannot be allocated for housing.

2.13 Heritage

- 2.13.1. A Heritage Assessment was undertaken by WSP in January 2020, in order to identify any historical implications of the proposed development and any accompanying mitigation measures.
- 2.13.2. The Assessment comprised a desk-based study in accordance with the following Historic England guidance:
- Conservation Principles: Policy and Guidance for the Sustainable Management of the Historic Environment (2008);
 - Historic Environment Good Practice Advice in Planning Note 2: Managing Significance in Decision-Taking in the Historic Environment (2015); and,
 - Historic Environment Good Practice Advice in Planning Note 3: The Setting of Heritage Assets (2017).
- 2.13.3. The Historic England Map Search Function Identifies the following assets within a 1km radius from the approximate centre of the site:
- The Grade II listed Sand Hole Farm (LEN: 1396460) approximately 250m to the east of the site;

- The Grade II listed Church of Saint Martin (LEN: 1203230) approximately 370m to the west of the site; and,
- The Grade II listed Rochdale Canal Lock Number 52 and Towpath Bride (LEN: 1038295) and the Grade II listed Rochdale Canal Local Number 53 (LEN: 1346237) both approximately 550m to the west of the site.

Conclusions and Recommendations

2.13.4. The Heritage Assessment analyses the impact of the proposed development on the significance of the identified heritage assets, in accordance with paragraph 189 of the NPPF. The outcome of each assessment is summarised below.

Sand Hole Farm

2.13.5. The Assessment concludes that the setting of the listed building is immediately defined by the smaller yard within which it is located and does not extend in any significant manner beyond the field system within which it sits. The asset has no significant spatial or functional relationship with the proposed development site. In fact, the A627(M) represents a substantial barrier between the site and the asset. Either side of the Motorway are steep sided banks which mean that the asset is not visible from the site.

2.13.6. Therefore, developing the site for housing will have no negative impact on the asset.

2.13.7. Residential development of a similar type as proposed at the site, has been approved and built out as close as 100m north of the listed building (ref: 15/00826/FUL), which is closer to the asset than the site. There were no intervening features other than open fields between the asset and the approved, and now built out, residential scheme. Also, there were no objections raised with regards potential impacts upon the asset from the development of new housing and no specific mitigation measures, relating to the asset were required as part of this application.

The Church of Saint Martin

2.13.8. The listed church has long been bound by predominantly residential areas to the north, south and west, and more recently to the east. Therefore, the church has over the years experienced changing built form within its setting. The spire of the church is a notable feature of the skyline; however, it is deemed that the proposed development will not diminish the way in which the church is understood or enjoyed.

- 2.13.9. Furthermore, the development proposals will be positioned away from the church with other dwellings already present in the intervening space. Meaning there will be visual changes within views, but they won't be harmful. There will therefore be no harm to the significance of the Church of Saint Martin.

Listed Canal Assets

- 2.13.10. These particular features of the nearby canal in this location do not extend towards the site and not beyond their immediate urban context, effectively being completely spatially and functionally separate from the site, therefore, there will be no significant impact upon these assets as a result of developing the site for housing.

2.14 Crime Impact

- 2.14.1. An initial Crime Impact Statement (CIS) has been undertaken to identify any potential impacts related to crime associated with the proposed development of the site for housing. The CIS recognises and recommends possible measures of mitigation against any identified impacts, which are being considered as the illustrative masterplan for the site evolves.

Conclusions and Recommendations

- 2.14.2. The report concludes that at the time of the study, analysis of crime in the wider area reveals crime and anti-social behaviour on or near the majority of the roads around the proposed development site is relatively low, however, this may change over time.
- 2.14.3. Key recommendations to feed into the detailed design relate to creating a safe sense of place with a focus on introducing and maximising opportunities for natural surveillance and clearly defining and lighting public, private and semi-private spaces. Inclusion of the recommended measures will satisfy the requirements of relevant policies and strategies.
- 2.14.4. The possible introduction of new homes on a currently underused site and implementation of the security strategy recommended should prevent or reduce the opportunities for the types of crime that have been committed in the area being committed within any new development. Overall, it may actually improve other nearby areas because it will make it a more active area.

3 Illustrative Masterplan

- 3.1.1. The technical survey work carried out to date has been used to identify a series of opportunities and constraints which were captured in an initial Opportunities and Constraints Plan. This in turn has been reflected in and informed the evolution of the proposed scheme, which is being taken forward by e*SCAPE Urbanists.
- 3.1.2. The latest draft illustrative masterplan is a work in progress, however, shows how the site could be developed, taking account of the identified technical constraints whilst at the same time still seeks to maximise development opportunities in order for a high-quality residential scheme to be delivered. A copy of the latest draft version is attached at Appendix 2.
- 3.1.3. As further survey work is completed, the illustrative masterplan will continue to evolve and be refined.

3.2 Illustrative Layout

- 3.2.1. The precise mix, size and tenure of properties will be determined at the detailed design stage; however, the final scheme will be one of family housing, with no apartment blocks proposed.
- 3.2.2. The size of the site means it is able to offer a wide range of different house types, which will be reflective of the market and local needs at the time of the detailed design stage.
- 3.2.3. The EIA Screening Response previously issued by the Council, based on a scheme of up to 600 dwellings, concluded that the proposed development of the site did not constitute EIA development, thereby, agreeing that the site can come forward for the specified quantum of development without there being any significant adverse impacts upon the surrounding environment.
- 3.2.4. Notwithstanding the fact that developing the site for housing won't lead to any significant adverse impacts, there are a number of key constraints that had to be considered during the evolution of the indicative layout. Each is discussed below.

Topography

- 3.2.5. Whilst the site is undulating and does generally slope down from the highest point at the northeast corner to the south, topography is not a constraint that would mean development could not come forward at the site in the short term.

- 3.2.6. Survey work carried out indicates that through a cut and fill exercise the site can be made ready for development. Work on refining the extent of the cut and fill balancing exercise is still on-going, however, preliminary work on external levels do show that a suitable development platform can be created.
- 3.2.7. The nearest sensitive receptors to any site level changes will be the residents along Leander Drive to the west and users of the PRow (Cripple Gate Lane) along the northern boundary.
- 3.2.8. The existing properties along Leander Drive will be separated from the proposed development parcels by a proposed linear park and the main internal access road leading into and through the site. This buffer and substantial separation distance will mean there would be no issues of overlooking or loss of amenity for existing residents through the delivering of housing at the site, even if it was at a slightly higher level, in places, than the site is currently.
- 3.2.9. Levels in the northern part of the site are likely to require the least re-grading, however, as shown on the indicative masterplan an allowance has been made for a landscape buffer to be provided between the proposed development parcels and the existing PRow along Cripple Gate Lane.

Existing ponds / watercourses

- 3.2.10. The existing tree lined channel that runs through from the centre of the site to the southern boundary and connects to the adjacent pond will be retained and incorporated into the final drainage scheme. This is shown on the indicative masterplan as forming part of the green infrastructure network throughout the site.
- 3.2.11. Furthermore, in response to initial drainage work carried out to date, two detention ponds are proposed at the southern ends of the site, one to manage drainage flows from the eastern development parcels and the other to manage flows from the west.
- 3.2.12. The proposed detention ponds also form important landscape features and assist in creating a softer edge to the site where it meets adjacent ponds and landscaped areas.

High-pressure gas main

- 3.2.13. There is a high-pressure gas main which runs through the site, north to south, within the western part of the site. It is not possible to develop housing over the gas main and the required easement either side must also remain free from residential development.

- 3.2.14. To take account of this constraint, the area over, and around (ie the easement) is to be left free from development. As this has an impact on overall developable area remaining, it is proposed that the main areas of POS are provided in the no build area.
- 3.2.15. A linear park is therefore proposed that stretches the length of the site, running north to south. This enables a large area of useable POS to be provided which can be used for recreational and leisure purposes and also offer opportunities for biodiversity enhancement through seeking to incorporate any lost habitats, and replacement tree planting, as part of the wider landscaping scheme.
- 3.2.16. As already mentioned, providing a linear park in this location also has the added benefit of providing a substantial, and attractive, buffer between the proposed development parcels and the existing residential properties along Leander Drive.

Noise Source

- 3.2.17. As discussed in the previous section, the predominant noise source affecting the site is from the two Motorways, particularly to A627(M) along the eastern boundary given its more immediate proximity to the site boundary.
- 3.2.18. Initial recommendations following the noise survey work carried out to date include ensuring that houses face the site boundaries, there is a landscaped buffer between the Motorways and any new houses and that internal ventilation systems are explored to minimise the need for residents to open their windows.
- 3.2.19. A more specific response as to how mitigation measures are incorporated into the proposed scheme will come out of the detailed design work. However, at this initial outline stage it is possible to demonstrate how the proposals are seeking to respond to the potential noise impacts from adjacent sources.
- 3.2.20. The perimeter of the development parcels shown on the indicative masterplan is marked with a dashed line denoting share private drives, this demonstrates that all properties adjacent to the site boundary will be designed to face outwards, as suggested by the findings of the initial acoustic work.
- 3.2.21. Furthermore, a landscape buffer, which forms part of the green infrastructure, runs along the site boundary offering separation and screening between the Motorway and proposed development parcels. Additional tree planting/landscaping can also be provided along these boundaries to strength and enhance the existing screening provided by the existing trees.

Overhead Electricity Cables

- 3.2.22. An overhead electricity cable runs halfway across the site (north to south) in the north eastern part of the site, extending from the business park to the north.
- 3.2.23. It is likely that these cables will be removed. However, this is a matter to be determined at the detailed design stage. Although, it is important to note that the current presence of the cables does not represent a constraint that would preclude the development of the site, or indeed leave a large part of it undevelopable.

3.3 Quantum of Development

- 3.3.1. In terms of anticipated quantum of development, the maximum number of dwellings being considered is 600. However, in reality, based on the technical work undertaken to date and identified site constraints, it is likely that the final scheme will be somewhere around 550 dwellings. Although, working to a maximum of 600 dwellings allows assessments to be carried out on worst-case scenario and provides an element of flexibility until the final quantum of development is defined.
- 3.3.2. The working draft illustrative masterplan demonstrates how development parcels can be delivered across the site whilst still ensuring that sufficient POS, infrastructure and mitigation measures are also accommodated.
- 3.3.3. As discussed above (site constraints) and shown on the proposed schedule of accommodation on the draft illustrative masterplan, there are a number of factors that influence the extent of the developable area available across the site.
- 3.3.4. To incorporate sufficient noise and drainage mitigation measures, approximately 1.26ha of the site has to be devoted to providing a substantial landscape buffer along the site boundaries and provision of two detention ponds.
- 3.3.5. In addition, the need to avoid developing over the high-pressure gas main and associated easement has led to a further 4.84ha of the site being excluded from the developable area. However, as explained above, this has led to a positive opportunity in terms of being able to provide an over-provision of POS.
- 3.3.6. The Council's policy requires circa 3.4ha of POS and through the creation of the linear park, almost 5ha of useable and attractive POS will be provided for use by new and existing nearby residents.

- 3.3.7. Taking the above into account results in a net developable area of 15.15ha. In order to create an attractive, well-balanced and mixed community, the final scheme will include a range of different house types and sizes, which will also reflect market conditions and local needs at the time of delivery.
- 3.3.8. Working on the basis of a net developable area of 15.15ha and a scheme of around 550 dwellings, making a crude calculation, this would result in an average net density of 25 dwellings per hectare (dph). However, whilst the final layout will be a matter for the detailed design / reserved matters stage, it is likely that there will be different character areas across the site with varying densities.
- 3.3.9. For example, area of higher density (circa 36-38dph), characterised by a larger proportion of terraced and semi-detached houses are likely to be located adjacent to the proposed Mews spaces and squares and along the northern and eastern boundary. This will assist in mitigating noise from the adjacent Motorways.
- 3.3.10. Areas of lower density (circa 30-34dph) would typically be located around the edges of the site and the interfaces with the development's POS. These areas would be characterised by a greater proportion of larger detached dwellings, including more three and four bedroom properties.

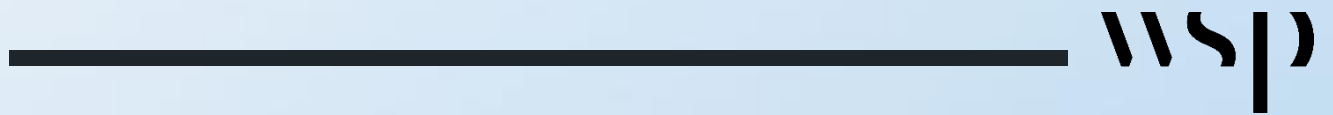
3.4 Access / Movement

- 3.4.1. Due to the presence of the two Motorways along the eastern and southern boundary, access opportunities are limited to the north and west. However, the existing business park to the north and the row of residential properties along Leander Drive to the west means existing access points from Cowm Top (northern boundary) and Trows Lane (south western corner) are the two options available.
- 3.4.2. Access from Cowm Top will be the primary access into the site, with Trows Lane acting as an emergency access route only.
- 3.4.3. As set out in the previous section, a number of improvements are being carried out to Cowm Top bringing it up to adoptable standards and highway capacity work has been undertaken to demonstrate its ability to accommodate the anticipated vehicle movements associated with delivering 600 new houses on the site.

- 3.4.4. In addition, the site is sustainably located with good accessibility to surrounding services and facilities. Permeability and connectivity throughout the site will be key to maximise these opportunities and ensure that future residents can walk and cycle to local facilities, bus stops and train station.
- 3.4.5. The illustrative layout shows the potential for footpath links to be provided to the PRow along Cripple Gate Lane. This is also part of the proposed new Beeline Cycle Route. This provides a link over the A627(M), connecting the site with Buersil and Balderston, which offer further local services and facilities nearby in addition to those in Castleton.
- 3.4.6. Linkages are proposed from Cripple Gate Lane through the proposed linear park along with western part of the site, which would run all the way down to Trows Lane in the south western corner of the site. From this footpath, regular linkages into the residential development parcels could be provided.
- 3.4.7. Whilst it will be for the detailed design stage to determine the internal road layout, the indicative masterplan shows how a road hierarchy system could be accommodated throughout the site, with a number of primary and secondary streets spanning off a central avenue which runs through the centre of the site east to west. The avenue could contain arrival hubs and squares which mark the key entrances to different development parcels.

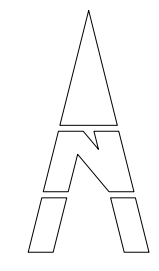
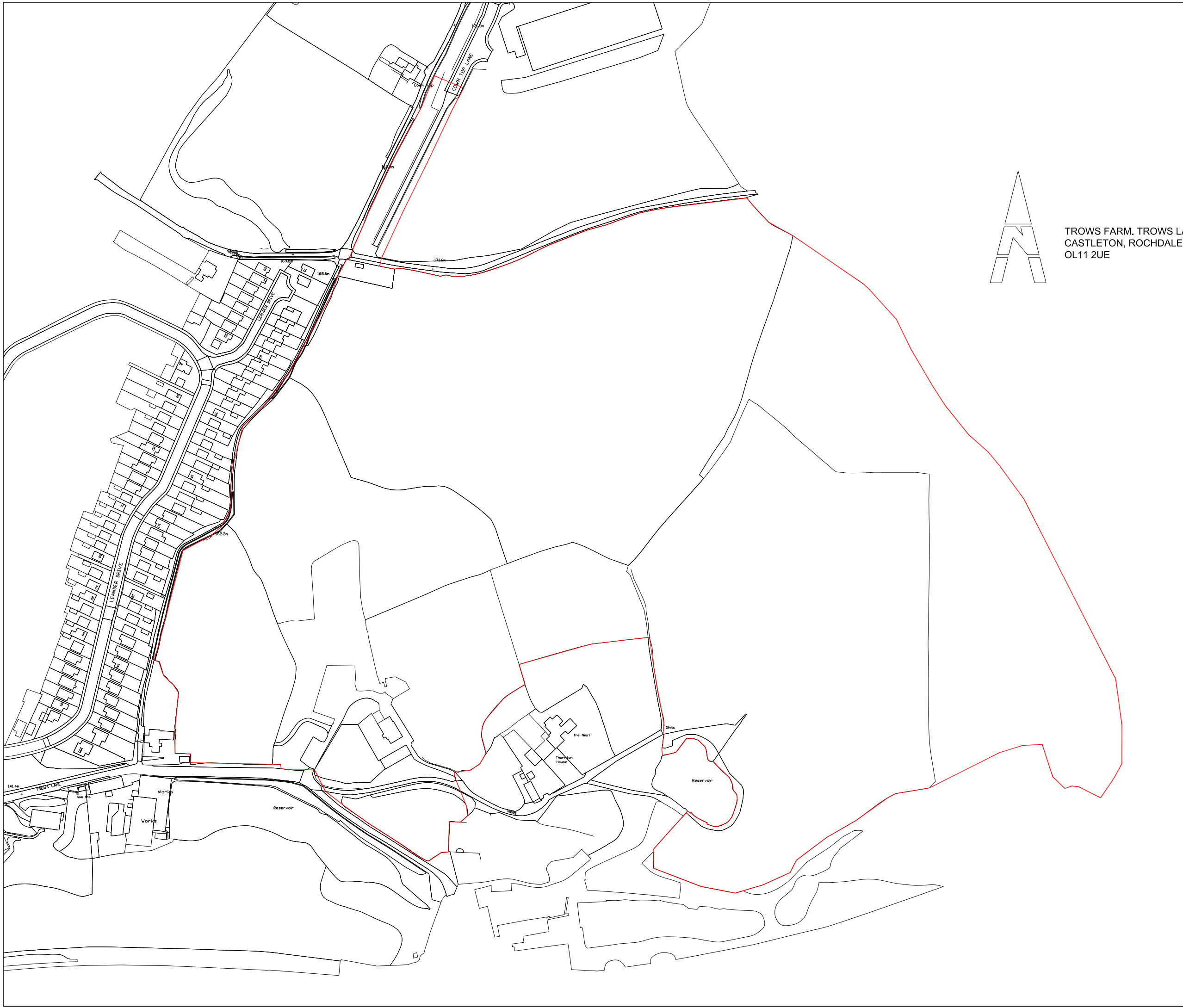
Appendix A

Site Location Plan



WARNING TO HOUSE PURCHASERS
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TROWS FARM, TROWS LANE
 CASTLETON, ROCHDALE
 OL11 2UE

Rev	Description	Date	Drawn	Chk'd
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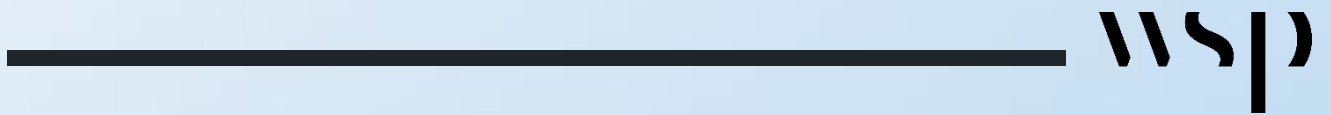
Job
 COWN TOP LANE
 ROCHDALE

Title
 LOCATION PLAN

Design By	Date	Drawing Number	Rev
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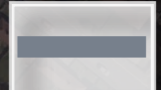
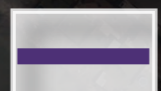
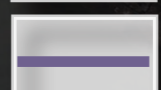








Appendix B

Draft Illustrative Masterplan




Accomodation Schedule:
 Gross Site Area: 21.58 ha
 Net Developable Area: 15.15 ha
 Number of Homes: 550
 Public Open Space: 4.84 ha
 Landscape Buffers: 0.7 ha
 Detention Ponds: 0.56 ha
 Net Density: 36 units/ha
 Gross Density: 25 units/ha

Key

-  Application Boundary
-  Avenue
-  Primary Street
-  Secondary Street
-  Shared Private Drives
-  Primary Footpath Links
-  Primary Footpath Links
-  Square/Mews
-  Development Parcels
-  Existing Trees
-  Green Infrastructure
-  Detention Basins Swales



 n*ORTH

0m 20m 40m 60m 80m 100m

Scale 1:2500 (@A3)

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