Harrow Estates plc

Residential Redevelopment of the Former Clariant Works, Horsforth, to provide up to 400 dwellings with Ancillary Retail Unit, Provision of Allotments, the Retention of the Sports Ground with Pavilion and Associated Highway Works

Non Technical Summary

Date (03/09/2010)

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0.1 Introduction

0.1.1 WYG Environment Planning Transport Ltd ("WYG") has prepared an Environmental Statement ("ES") with inputs from various third party consultants and is the result of an Environmental Impact Assessment ("EIA") with supporting surveys. The objective of the ES is to assess any likely significant environmental effects of the Harrow Estates plc ("Harrow Estates") proposals that comprise: - i) the residential redevelopment of the former Clariant Chemical Works site, Calverley Lane, Horsforth, Leeds involving 12.5 hectares ("ha") of land ("the Works") to provide up to 400 dwellings with associated public open space, parking, access improvements, landscaping and an ancillary retail unit (gross floor space up to 500 square metres ("sq.m.")); ii) the provision of land for allotments and the retention of the sports ground with pavilion for sport and recreational purposes, with an opportunity for increased community use, covering an additional 2.8ha of land to the east of Calverley Lane ("the Sports Ground"); iii) associated highway works ("Highway Works") including a revised junction arrangement at Calverley Lane (south) with left in, left out and right in arrangement from and to the A6120, pedestrian crossing and relocated bus stop (0.7ha), improvement works to Rodley Roundabout (A6120/A657) with pedestrian crossing and footway improvements (1.5ha), improvement works to Horsforth Roundabout (A6120/A65) with pedestrian crossing and bus gate at the northern end of Calverley Lane (north) where it meets the A6120 (1.7ha). The planning application for the proposed residential redevelopment of the Works with ancillary retail unit, use of the Sports Ground with allotments and associated Highway Works is made in outline to Leeds City Council, as Local Planning Authority ("the LPA"), with all matters reserved apart from access, and is collectively referred to as the Proposals ("the Proposals"). The planning application boundary for the Site ("the Site"), involving the Works, the Sports Ground and associated Highway Works covers a total of 19.2ha as shown edged red on the Site Location Plan Figure 1.1 A and the Application Site Plan Drawing No. A057457-1/001.

0.1.2 An ES has been prepared with full regard to the Town and Country Planning (Environmental Impact Assessment) Regulations 1999 ("the EIA Regulations") and any other relevant guidance. This document provides a non-technical summary of the ES including a description of the Site, the Proposals, along with any potential significant environmental effects and mitigation measures. Consultation has been carried out with the LPA, a number of relevant third parties and public information exhibitions have been held prior to finalising the Proposals.

0.1.3 The EIA process has involved the following steps:

- Identifying features of the existing environment likely to be affected by the Proposals;
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- Liaison with the LPA and relevant consultees in relation to the scope of the EIA although no formal scoping opinion has been sought from the LPA;
- Collating existing baseline data for the Site and the surrounding area;
- Undertaking environmental surveys to supplement existing baseline data;
- Identifying and assessing any likely significant environmental effects arising from the Proposals along with identifying mitigation and enhancement measures;
- Providing feedback into the design of the scheme; and
- Producing an ES to accompany the planning application.
0.2 Site Location and Context

0.2.1 The former Clariant Chemical Works, covers 12.5ha of land and is located to the west of Calverley Lane (south) and south of Low Hall Road approximately 8km to the north west of Leeds City Centre, to the south west of Horsforth, north of Rodley and north east of Calverley. The Sports Ground includes sports pitches with pavilion and extends to some 2.8ha of land to the east of Calverley Lane (south). The remaining three parcels of the Site comprise land within the public highway and include: part of Calverley Lane (south) and the A6120 (0.7ha); Horsforth Roundabout at the intersection of the A6120 and A65 roads along with part of the A6120 at its junction with Calverley Lane (north) (1.7ha); and Rodley Roundabout at the intersection of the A6120 and A657 roads (1.5ha).

0.2.2 The Works was formerly occupied principally by Clariant UK Ltd ("Clariant") until mid 2009, primarily as an industrial chemical works and their UK head office. The buildings on the Works range from one to six stories with some structures exceeding 15m in height above ground level. An effluent plant is located to the south west of the Works. A further effluent plant was located in the north west part of the Works prior to being decommissioned and removed during 2009. Six vacant semi-detached two storey residential properties (nos. 1, 3, 5, 7, 9 and 11 Low Hall Road) and an unused private allotment area are also located to the north side of the Works. The Works is currently unoccupied although the majority of buildings from the former chemical works remain apart from the Dyestuffs and Chemical Buildings that have been demolished and the Tank Farm has been removed.

0.2.3 Some 7.8ha of the Works is occupied by buildings, structures and hardstandings with the remaining 4.7ha being occupied by vegetated areas (grass, trees or shrubs) and occasional gravel areas.

0.2.4 The Works generally falls in a north to south direction with levels ranging from 67m to 63m above ordnance Datum ("AOD") respectively in the north east and north west corners falling to 63m and 46m AOD respectively in the south east and south west corners. The majority of the Works is located on a level platform at around 63.5m AOD. A steep embankment is present along the southern edge of the Works.

0.2.5 The Works has existing vehicular access points from two locations on Calverley Lane (south) and a further five locations from Low Hall Road. Calverley Lane links with the A6120 road, which forms part of the Outer Leeds Ring Road, and then connects with a roundabout linking with the A65 road to the north and a further roundabout joining with the A657 to the south.
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0.2.6 The Sports Ground covers 2.8ha of land and generally falls from north to south with levels ranging from 60m and 57m AOD respectively in the north east and north west corners to 53m and 50m AOD respectively in the south west and south east corners. A single storey sports pavilion is located toward the north west of the Sports Ground along with vehicular access point to Calverley Lane (south).

0.2.7 The Works is bound to the north by Low Hall Road then primarily by existing employment uses including Low Hall Road Industrial Estate and Woodbottom Mills along with some offices and farm buildings at Low Hall, which includes three Grade II Listed Buildings, with agricultural land and some residential properties beyond. The Cragg Wood Conservation Area is located outside and beyond the north west corner of the Site and Low Hall Road.

0.2.8 West of the Works are a number of industrial buildings, with external hard standing and storage areas referred to collectively as Riverside Mill ("Riverside Mill"). Some clusters of trees and low lying vegetation along with some residential properties are also located to the west of the Works. Gill Beck is located adjacent to the north west part of the Works and then flows in a south west direction through the Riverside Mill site to its confluence with the River Aire. Area based Tree Preservation Orders cover some trees along the north verge of Low Hall Road and on the Riverside west of the Works. Three Grade II Listed Buildings are located in excess of 450 metres to the west of the Works involving Lodge Bridge, and buildings respectively at Lodge Farm and Calverley House Farm.

0.2.9 A main line railway generally runs adjacent to the southern edge of the Works and crosses a bridge over the River Aire that is located adjacent to, but outside, the south west part of the Site. The Leeds and Liverpool Canal is located to the south of the River Aire, in excess of 200 metres south of the Site and forms part of a designated Site of Special Scientific Interest and Site of Ecological/Geological Importance. In addition, the Calverley Bridge Conservation Area is located in the vicinity of the Leeds and Liverpool Canal with four associated Grade II Listed Buildings. The Rodley and Calverley Conservation Areas are respectively located in excess of 500 metres and 700 metres to the south and south west of the Site.

0.2.10 Calverley Lane (south) abuts the east side of the Works and the west side of the Sports Ground. North of the Sports Ground is agricultural land then some residential properties along part of Calverley Lane (north). East of the Sports Ground is a watercourse then agricultural land, woodland then the A6120 road with Swaine Wood Local Nature Reserve to the east. South of the Sports...
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Ground is a restaurant, the main line railway along with employment land including a recycling depot and timber business then Calverley Lane (south).

0.2.11 A network of public rights of way and a permissive route are located in the vicinity of the Site and includes a public footpath (ref. no. H37) and permissive bridleway that runs along the north bank of the River Aire and passes adjacent to the south west edge of the Works. A public footpath (ref. no. CP5) runs from footpath (ref. no. H37) south of the Site and the railway line, across a footbridge over the River Aire then links with a public footpath (ref. no. CF1) and the concurrent National Cycle Route 66, that runs along the north side of the Leeds and Liverpool Canal, then continues to the south west to the A657 Rodley Lane, north west of the settlement of Rodley. A public footpath (ref. no. H39) runs from the north side of Low Hall Road, toward the north west corner of the Works, generally in a northward direction to provide access to the A65 road toward the south west of the settlement of Horsforth. In addition, a public bridleway (ref. no. H40) follows the route of Bar Lane from Calverley Lane (north), to the east of Low Hall and north of the Site running generally northward to the A65 and the settlement of Horsforth.
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0.3 Development Description

0.3.1 The Proposals provide for:- i) the residential redevelopment of the Works part of the site, involving 12.5ha of land to provide up to 400 dwellings with associated public open space, parking, access improvements, landscaping, an ancillary retail unit on the ground floor of an otherwise residential unit (gross floor space up to 500 sq.m.); ii) provision of land for allotments and the retention of the sports ground with pavilion for sport and recreational purposes, with an opportunity for increased community use, covering an additional 2.8ha of land to the east of Calverley Lane; iii) associated highway works including a revised junction arrangement at Calverley Lane (south) with left in, left out and right in arrangement from and to the A6120, pedestrian crossing and relocated bus stop (0.7ha), improvement works to Rodley Roundabout (A6120/A657) with pedestrian crossing and footway improvements (1.5ha), improvement works to Horsforth Roundabout (A6120/A65) with pedestrian crossing and bus gate along the A6120 where it meetings with the northern end of Calverley Lane (north) (1.7ha). The planning application for the Proposals is made in outline to the LPA, with all matters reserved apart from access.

0.3.2 A detailed remediation strategy will be developed for the Works part in due course taking into account the site investigations to date, along with some limited additional site investigation and geotechnical assessment work to be completed prior to the commencement of such remediation works. The detailed remediation strategy will be developed in consultation with the LPA and relevant consultees, along with relevant contractors to be appointed in due course. The buildings associated with the former Clariant Chemical Works will be demolished and hard standing areas largely broken-up, with the majority of materials being retained for re-use or recycling on-site wherever reasonably practicable. The remediation strategy will include measures to treat contaminated areas on the Works to an appropriate standard suitable for subsequent residential use including homes, gardens and areas of open space and provide for some ground compaction where necessary.

0.3.3 In relation to the Works the assumed development programme from the commencement of remediation activities to the last occupation of the residential units will take 96 months (8 years) in total and comprise the following elements:

i. Remediation with demolition activities start February 2011 and end July 2012 (18 months);
ii. Construction activities start January 2012;
iii. First plot occupation in August 2012; and
iv. Last plot occupation in February 2019.
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0.3.4 The remediation activities on the Works will include the removal of asbestos containing materials and demolition of the existing buildings, with the treatment of areas of contamination, some regrading and compaction. Remediation works are likely to comprise the localised excavation of hotspots for either treatment or disposal and the treatment of any contaminated groundwater either using in-situ methods or utilising the existing effluent treatment plant. Construction operations will include internal road and drainage infrastructure work along with the erection of the dwellings and the ancillary retail unit. Off-site activities will include the movement of workers to and from Works and the movement of materials and plant. It is assumed that a limited amount of material will be removed from the Works either for re-use, recycling or disposal elsewhere. This material is likely to include scrap metals from the demolition process for recycling, asbestos waste for disposal at a suitably licensed facility and any contaminated soils. It is proposed that concrete and brick material will be retained on the Works for crushing and re-use within the as engineered fill. An estimated 5,000 cubic metres (approximately 10,000 tonnes) of topsoil will be imported to the Works part of the Site during the course of the construction period in order to make up an anticipated shortfall of this material. It is assumed that ground works on the Works will potentially include some piling.

0.3.5 Remediation and construction traffic will enter and leave the Works from the existing principal access points off Calverley Lane (south) and Low Hall Road and will continue along Calverley Lane (south) to the A6120 road. Anticipated HGV movements during the demolition, remediation, and construction phases of the residential development are expected to average around 5 no. in and 5 no. out per operational day (10 movements per day) with a maximum payload capacity of 30 tonnes. It is assumed that there will be peak periods for HGV movements to and from the Site via Caverley Lane (south) involving up to 50 no. in and 50 no. out per day (100 movements per day) for limited periods lasting up to 5 days (Monday to Friday) and will occur up to 5 times per year between months 12 and 90 of the Proposals. It is also anticipated that off-road parking on the Works part of the Site will be provided for personnel vehicles for up to 30 vehicles per day.

0.3.6 Site remediation and construction activities on the Works will normally be carried out between 0800 to 1800 hours Monday to Friday and 0800 to 1300 hours on Saturdays with no such activities on Sundays, Public or Bank Holidays. The importation and export of materials to the Works will normally be restricted to 0800 to 1800 hours Monday to Friday and 0800 to 1300 hours on Saturdays with no such activities on a Sunday or Public and Bank Holidays.

0.3.7 The residential development provides for up to 400 dwellings on the Works part of the Site with associated public open space, parking, access improvements, landscaping and the provision of an ancillary retail unit (up to 500sq.m. gross floor area). The Proposals also include the provision of
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land for allotments and retention of the Sports Ground with pavilion for recreational use with an opportunity for enhanced community use. Access for vehicles is proposed in the locality of the principal existing Works access points off Calverley Lane (south) along with two access points off Low Hall Road as shown on Drawing No. RL2728/08 Rev E.

0.3.8 For the purposes of the EIA it is assumed that the majority of the Works will be developed for 3 storey residential units (with a maximum ridge height of 12.5m above remediated ground level) and 2 storey units (with a maximum ridge height of 9.0 m above remediated ground level) along the Calverley Lane (south) frontage and the north east part of Low Hall Road frontage. It is assumed that the remediated ground levels will not exceed 1m above existing ground level and 1m above adjacent ground level where semi-basements currently exist. Residential development will be carried out within the developable area that covers some 11.2ha of the Works part of the Site as shown on Drawing No. RL2728/07 Rev C. The Proposed Built Form Drawing No. RL2728/08 Rev E shows the assumed areas for such 2 and 3 storey residential development along with the vehicular access to the Works part of the Site. The Works will be developed to an assumed gross density of up to 32 dwellings per hectare. The proposed Density Plan Drawing No.RL2728/09 Rev A shows the range of densities for residential development on the Works with 25 to 35 dwellings per ha to the north, west and south sides and then a central area linking with Calverley Lane (south) at 36 to 45 dwellings per ha. The Illustrative Masterplan Drawing No. RL2728/13 Rev D shows an indicative layout for residential development on the Works.

0.3.9 The potential for a non-vehicular link into the south west part of the Site will be considered linking with the public footpath and permissive bridleway along the north side of the River Aire.

0.3.10 The proposed range of house types (ranging from 2 to 5 bedrooms) will differ in terms of floor space, layout and appearance and seek to promote a development that meets the requirements of a broad spectrum of society in order to achieve a mixed community on the Works.

0.3.11 Structurally, the landscape design process will seek to address the need to impose a strong landscape framework across the Works, linking newly planted vegetation areas with existing established trees to be retained where possible along the north west, north and east sides of the Works and other trees within this part of the Site as indicated on the Illustrative Masterplan (Drawing No. RL2728/13 Rev D) and Landscape Masterplan (Drawing No. A057457/01 Rev A). This will be achieved by the planting of a mix of native and semi-native tree species throughout the development on the Works in order to achieve an extensive canopy cover as the trees mature. Planting within rear gardens will extend this effect.
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0.3.12 The Illustrative Masterplan (Drawing No. RL2728/13 Rev D) shows public open space within the residential development on the Works including a formal local area of play and informal areas of public open space to the south of the dwellings. The precise details of public open space provision including location and size will be addressed as part of any reserved matters application.

0.3.13 In addition, it is proposed that the Sports Ground and land for allotments will be transferred by Harrow to a Management Company who will take responsibility for the maintenance of the 2.8ha Sports Ground for continued and potentially enhanced community use.

0.3.14 The Proposals promote associated Highway Works involving land solely within the public highway as shown edged red on Drawing No. A057457-1/001 and comprises the following:-

i. A revised junction arrangement at Calverley Lane (south) with left in, left out and right inarrangement respectively from and to the A6120 road, an uncontrolled pedestrian crossing on the A6120 (Horsforth New Road) and a relocated bus stop on Calverley Lane (south) as shown on Drawing No. W93952/A/12 Rev H (0.7ha);

ii. Improvement works to Rodley Roundabout at the intersection of the A6120 and the A657 roads including an A6120 extended dual lane approach to and exit from the roundabout, new and re-aligned footway works and an uncontrolled pedestrian crossing of the A6120 Ring Road Farsley as shown on Drawing Nos. W93952/A/07 Rev C and W93952/A/15 (1.5ha); and

iii. Improvement works to Horsforth Roundabout at the intersection of the A6120 and the A65 roads, including works to the roundabout and approach islands, a new pelican crossing on the A65 Rawdon Road, extension of the merge lane along the exit lane on the A6120 south of the roundabout, a relocated bus stop on the A6120 road as show on Drawing No. W93952/A/13 Rev B and the installation of a bus gate on the A6120 where it meets with the northern end of Calverley Lane (north) as shown in Drawing No. W93952/A/14 (1.7ha).

0.3.15 It is anticipated that such associated Highway Works will be delivered further to Harrow entering into a Highways Agreement under Section 278 Highways Act (1980).
0.4 Planning Policy Framework

0.4.1 An overview of the relevant Development Plan policies and other material planning considerations in relation to the Proposals is provided in Chapter 4 of the ES.

0.4.2 The Development Plan comprises the Leeds Unitary Development Plan Review (2006), with Saved Policies (2007 and 2009) ("UDP").

0.4.3 Material considerations also include the emerging development plan, Government guidance, planning policy statements and guidance.

0.4.4 The UDP Proposals Map shows the Works as unallocated land that in part abuts the Green Belt and is adjacent to the Main Urban Area ("MUA") of Leeds. The Sports Ground and allotment land lie within the Green Belt and a Special Landscape Area. The associated Highway Works are shown in part within the MUA's in the vicinity of Horsforth and Rodley and elsewhere within the Green Belt.

0.4.5 National planning policy and other UDP policies provide policy support for the beneficial reuse of disused industrial sites. The Proposals on the Works site will make efficient use of a contaminated brownfield site adjacent to the Main Urban Area of Leeds and will result in a substantially more sustainable and appropriate scale of development than that of the existing use. The Proposals also represent the provision of a windfall housing development in a demonstrably sustainable location, that meets identified housing needs, helps contribute to the five year supply of housing land and reduces the pressure on Greenfield sites to be released. The Proposals will make S106 contributions to education, affordable housing and public transport to accord with the additional need arising from the development. Provision of a bus service and other off-site Highway Works benefit the wider community and businesses that would not be delivered should the site remain in employment use. The retention of the Sports Ground and the provision of land for allotments is considered to be compatible with national and UDP Green Belt policy. The associated Highway Works are contained within the existing adopted highway and where located within the Green Belt, maintain its openness in this respect. The Proposals are considered to accord with the development plan and other material planning considerations, including relevant Government planning policy statement guidance and supplementary planning documents.
0.5 Environmental Impact Assessment Process

0.5.1 Chapter 5 of the ES sets out the EIA process which has been progressed in accordance with the EIA Regulations and taking into account relevant guidance in this respect.

0.5.2 Chapter 5 of the ES outlines the methodology, approach and relevant assessment terminology that has been applied to each specialist assessment chapter (6 to 12 inclusive) as appropriate, in order to determine the potentially significant environmental effects of the Proposals. A number of the assessments, for instance ecology, follow alternative assessment methodologies in accordance with established best practice relevant to the particular discipline. Where this is the case, details of the topic specific methodology are provided in the relevant ES chapter.

0.5.3 The assessment presented in this ES has considered the potential for significant environmental impacts to affect the baseline conditions as a direct/indirect result of the Proposals. Mitigation and enhancement measures as part of the Proposals have been taken into account where appropriate.
0.6 Ground Condition and Remediation

0.6.1 The Site Works and Sports Ground were first purchased by Clariant’s predecessors in 1948 and developed as a chemical works for the manufacturing of dyestuffs. The majority of the Works was built to its current configuration by 1973. The Works has remained operational until mid 2009. The nature of contamination identified on the Works is as would be expected from a historical site use of this nature. To date investigations on the Works have identified very limited elevated concentrations of contaminants in soils. However, elevated concentrations of contaminants are present in groundwater at a number of locations within the Works. Maximum concentrations were typically encountered within the southern portion of the Works.

0.6.2 It is considered that remediation would be required with regards a change to a more sensitive use of the Works part of the Site. The likely remedial strategy for the Works to render it suitable for a residential end use, based on information obtained to date, will be localised soil and groundwater remediation addressing the potential human health and controlled water risks. The groundwater remediation will target the solvent impacted groundwater contained predominantly within the south eastern area of the Works. In addition suitable precautions should be taken during remediation and construction phase on the Works to protect remediation and construction workers and prevent further contamination arising from the activities themselves.

0.6.3 Further ground investigation and detailed quantitative risk assessment will be required to fully define the risk to future users of the Works and the wider environment, based on the current status of this part of the Site. This work will then be used to define a remedial strategy to render the Works suitable for a residential end use, taking account of surrounding site uses also. The remedial strategy will be developed in line with UK best practice, with the Local Planning Authority being the regulating authority and providing a sign off of the scheme as acceptable. On completion of the remedial works a remediation statement (verification report) will be prepared to provide factual evidence of the works being completed to render the Works suitable for use.
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0.7 Ecology

0.7.1 The evaluation of potential ecological receptors identified the Leeds-Liverpool Canal SSSI and SEGI, Swaine Woods LNA and the River Aire as valued ecological receptors. Small numbers of common pipistrelle bats have been recorded roosting within the Site, and other legally protected species (otter, badger and nesting birds) may also be present within or immediately adjacent to the Site and require consideration to ensure that contravention of the relevant legislation is avoided.

0.7.2 A range of environmental measures to mitigate potential effects on valued ecological receptors and legally protected species has been identified. Providing these measures are implemented in full, no significant adverse effects on valued ecological receptors or contravention of nature conservation legislation as a result of the Proposals are predicted. The Ecology assessment is based on professional judgement and where appropriate, reference to published information.
0.8 Landscape and Visual Effects

0.8.1 Chapter 8 provides a summary of the predicted landscape and visual effects of the proposed redevelopment of the former Clariant Chemical Works, on the landscape and visual amenity of the Site and the surrounding area.

0.8.2 The Works part of the site comprises numerous large industrial buildings associated with the former chemical works, large areas of hard standing, grassed areas and a small landscaped garden area.

0.8.3 Existing landscape features of the Works and Sports Ground include mature trees and shrubs. Some of these trees and shrubs within the central area of the Works will be removed as part of the remediation for the Proposals, however much of the boundary vegetation and formal garden vegetation will remain and will be enhanced through the landscaping scheme for the Works part of the Site. The landscape features and landscape designations that cover the Sports Ground will not be affected by the Proposals.

0.8.4 The local landscape character of the Calverley Valley will be improved through the removal of the industrial buildings on the Works and the implementation of an enhanced landscaping scheme across this part of the Site, particularly to the boundaries of the Works at the Green Belt edge and where mature trees have previously been felled.

0.8.5 Views of the Proposals on the Works will be available from properties to the north east and north at Calverley Lane (north) and Rawdon Road respectively. Views of the development on the Works will also be available from across the Airedale Valley from Calverley House Farm, Rodley and the northern edge of Calverley. The quality of the view from these residential areas will be improved once the proposed landscaping has matured to integrate the Proposals into the surrounding landscape.

0.8.6 Views of the Proposals will also be improved from numerous public rights of way and transport corridors within the study area. Views from Conservation Areas and historical buildings within the study area will also be improved.
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0.9 Archaeology and Cultural Heritage

0.9.1 A comprehensive cultural heritage desk-based assessment was undertaken for the Proposals. The assessment identified that the Works part of the Site lies within an area which appears to have remained largely undeveloped until the construction of the chemical works in the 1950s, however there is evidence within the study area for archaeological settlement from the late prehistoric periods onwards.

0.9.2 The assessment identified two small buildings from historic mapping that are likely to be associated with Low Hall within the north of the Works part of the Site. There is also the potential that previously unrecorded archaeological remains may be discovered. A programme of archaeological monitoring of site investigation works to determine the potential for archaeological remains to survive previous truncation and development on the Works part of the site has been recommended during the reserved matters stage. The results of the archaeological monitoring will determine the final mitigation strategy for the Site.

0.9.3 The assessment has also identified that the settings of the nearby Listed Buildings of Low Hall and Calverley Bridge and the Conservation Areas of Calverley and Calverley Bridge will be improved by the replacement of the disused chemical works by the residential development with ancillary retail unit. The new development on the Works part of the Site will be of a more appropriate scale and architectural built form and will not be so prominent within the landscape due to associated soft landscaping.
0.10 Water Resources

0.10.1 An assessment of the potential impacts of the Proposals on flood risk, water resources and water quality has been carried out. This review has considered potential impacts on controlled waters (surface and groundwater), permitted discharges and abstractions, and flood risk on and off the Site.

0.10.2 The nearest main watercourse to the Site is the River Aire, which abuts the south western corner of the Works, and flows in a northwest to southeast direction. In addition, three minor watercourses are present on or adjacent to the Site. One of these, which historically flowed through the middle of the Works, was infilled and its flow diverted to the Works surface water drainage system when the chemical works was first developed. The River Aire in this reach is classified as a Heavily Modified Waterbody with Poor Ecological Potential in the Humber River Basin Management Plan, and was classified in 2008 as Grade C (Fairly Good) for chemical quality and Grade D (Fair) for biological quality under the Environment Agency’s General Quality Assessment scheme. The quality of the minor watercourses adjacent to the Site is not monitored by the Environment Agency.

0.10.3 A small part of the south western corner of the Works is located in Flood Zones 2 and 3 (medium to high likelihood of river flooding from the River Aire). However, most of the Works part of the Site (and all of the area proposed for residential development with ancillary retail unit) is located in Flood Zone 1 (low likelihood of river flooding from the River Aire). The risk of flooding from other sources, including minor watercourses, groundwater, surface water, and sewers has been assessed as low.

0.10.4 Potential impacts on the water environment during the demolition, remediation and construction phase of the development will be managed by adoption of best practice measures to control site runoff and prevent accidental spillage of oils and other pollutants, as specified in the Environment Agency’s Pollution Prevention Guidance notes.

0.10.5 As a result of redevelopment, the percentage of impermeable surface on the Works will be decreased to from the current estimate of 62% to approximately 55%. At present, a piped drainage system on the Works part of the Site rapidly collects and discharges surface water to the River Aire, interrupting the natural hydrological cycle and further preventing water from draining naturally into the ground water table. Whilst it is assumed that the new residential proposals will result in a reduction in runoff as a result of a reduction in impermeable area, additional mitigation measures will also be incorporated into the design. The incorporation of elements of Sustainable Drainage Systems (SuDS), such as permeable paving, and attenuation basins will mean that infiltration is
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encouraged, and that runoff rates to the River Aire better mimics the natural hydrological cycle. SuDs will ensure the protection of downstream receiving watercourses in terms of managing the quantity and quality of Site runoff.

0.10.6 Given the minor nature of the associated Highway Works these are predicted to have no significant impacts on the Water environment. It is concluded from the assessment that the impacts of the Proposals on the water environment in the vicinity of the Site will be minor and generally positive.
0.11 Noise

0.11.1 Chapter 11 has considered the effect of noise upon existing receptors surrounding the Site and future occupants during the construction and operational phases of the Proposals. The assessments presented within the chapter relate to proposed remediation and residential development of the Works part of the Site, and associated Highways Works. The Sports Ground will not be subject to operational development and will remain in recreational use.

0.11.2 The scope of the assessment was agreed with the Environmental Health Department of Leeds City Council. All assessments have been undertaken in accordance with relevant current policy and guidance.

0.11.3 Baseline monitoring at the Site has been undertaken at three locations in order to establish the existing noise climate at the Site and surrounding receptors. A desk study has also been undertaken which has gathered information relevant to the assessments. This information has included road traffic data and the Illustrative Masterplan (Drawing No.RL2728 13 Rev D).

0.11.4 Assessments of noise from fixed and mobile plant and construction traffic have been undertaken. Assuming fixed and mobile plant would operate during daytime periods only, the assessment found that noise could be of major-intermediate significance when plant is operating at the boundary of the Works. For most of the time, when plant is operating away from the boundary, construction noise is of intermediate-minor significance. The assessment has identified that mitigation measures during construction would need to be considered and such measures have been recommended.

0.11.5 Construction traffic noise was found to be of intermediate significance during AM and PM peak periods. Although it is considered that mitigation would not be required for construction traffic, it is recommended that construction routes to and from the Works part of the Site be agreed with the Local Planning Authority.

0.11.6 An assessment of operational road traffic noise was found to be of neutral significance for residential receptors located along the A6210, A657 and A65. For the receptors along Calverley Lane, operational road traffic was found to be of intermediate-minor significance. No mitigation is proposed for operational road traffic noise.

0.11.7 An assessment of the Works suitability for residential development has been undertaken. This has involved the use of baseline noise measurement taken at the site and noise calculations. Site suitability has been assessed in accordance with the relevant national planning policy and guidance.
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(PPG24 and BS8233:1999). For all locations assessed, the assessment categorised as NEC B of PPG24.

0.11.8 A BS8233:1999 assessment identified that mitigation would be required in order to achieve recommended internal noise levels whilst allowing future occupants of some of the proposed residential properties on the Works part of the Site the ability to naturally ventilate bedrooms and living rooms without opening windows. Recommended mitigation in the form of glazing and ventilation has been proposed.

0.11.9 An assessment of noise in outdoor amenity areas has also been undertaken. This has identified that for future occupants located along the northern perimeter of the Works, no mitigation is required in order to achieve the 55 dB(A) aspirational target as defined within the World Health Organisation (WHO) document 'Guidelines for Community Noise' (1999). For the future Site occupants located along the southern boundary of the Works part of the Site, mitigation in the form of close boarded fence has been recommended. For occupants located along the eastern boundary of the Works part of the Site along Calverley Lane (south), mitigation may include the incorporation of a close boarded fence or the orientation or design of dwellings to rule out outdoor amenity noise in gardens overlooking Calverley Lane (south).
0.12 Traffic and Transport

0.12.1 At present the local highway network around the Site suffers from traffic congestion and delay during certain periods along the A6120 (Leeds Outer Ring Road), particularly at the Horsforth and the Rodley Roundabouts. The background traffic flows have been recorded as part of a detailed traffic survey that was undertaken in October 2009. The predicted traffic flows for the proposed residential development consisting of an assumed 400 residential dwellings and an ancillary retail facility on the Works part of the Site have been calculated based upon completion of the development and final occupation in 2019. Similarly, the potential traffic generation of the previous use on the Works part of the Site has been calculated based upon a B2 General Industry use following discussions with LCC. An assessment of the development impact has been considered based upon the change in traffic generated by the Proposals in comparison to the fallback use of the Works taking into account committed development within the surrounding area.

0.12.2 As the highway network currently suffers from peak hour congestion, a Vissim micro-simulation model has been developed to consider the impacts of the proposed residential development on the surrounding highway network compared with the fall back position. A comparison of journey times for both AM and PM peak periods covering a number of routes has been undertaken in order to make a judgement on the overall impact of the proposed development compared to the existing permitted use. The result of this assessment is included in the Transport Assessment (ES Appendix 12.1) which accompanies this planning application.

0.12.3 The ES Chapter 12 and the Transport Assessment identify a series of sustainable transport measures that will encourage the use of alternative travel modes in order to reduce the number of single occupancy car based trips. The Proposals also include improvements to both the Horsforth and Rodley roundabouts which are not necessary as a result of the development but will provide some betterment in the operation of the highway network during peak periods. Improvements will be made to Calverley Lane (north) and Calverley Lane (south) junctions along with improvements to local pedestrian facilities. The proposed development will improve pedestrian connectivity to Horsforth by providing a new signal controlled crossing on the A65 Rawdon Road. To the south of the Site, the existing links to the Leeds and Liverpool Canal will be improved to enable greater accessibility to traffic free pedestrian and cycle routes. A new section of footway along the A6120 Horsforth New Road will provide a continuous pedestrian route to the Rodley roundabout and on to Calverley. The developer will also fund the provision of a half hourly bus service linking the Works part of the Site with Horsforth Town Street and Horsforth train station between 0700hrs and 2200hrs seven days a week for a period of 10 years along with additional Metrocards for residents.
0.12.4 In conclusion, the proposed highway improvements, public transport provision and enhanced facilities for pedestrians and cyclists will provide substantial benefits to local area both during the construction phase of the development and when the development is complete and fully occupied.

0.12.5 There may be some negative effects during the construction period whilst the highway improvements are undertaken but this will be temporary. The delivery and removal of materials to and from the Works part of the Site will be programmed to minimise disruption during peak periods and will be included in the Construction Traffic Management Plan.

0.12.6 A Travel Plan will be adopted by the developer to encourage residents to travel to and from the Site by sustainable travel modes of transport, which will assist in reducing the impacts of vehicular traffic on the local highway network. The Travel Plan will encompass a number of sustainable travel initiatives that will offer smarter travel choices and promote and encourage sustainable travel modes for local and commuting trips. The Travel Plan will include a detailed monitoring programme that will review modal split targets at regular intervals and include the opportunity to review sustainable travel targets.
0.13 Summary and Conclusions

0.13.1 An Environmental Statement has been prepared by WYG, in conjunction with third party consultants, to accompany a planning application for the residential redevelopment of the Works, Horsforth, Leeds to provide up to 400 dwellings with ancillary retail unit, provision of land for allotments, the retention of the Sports Ground and associated Highway Works. The planning application is made in outline with all matters reserved apart from access.

0.13.2 The Proposals have been assessed in relation to a comprehensive range of environmental matters (notably ES Chapters 6 to 12). The Proposals have been carefully designed with mitigation measures where appropriate, in order to achieve an environmentally acceptable development.

0.13.3 The Proposals comprise sustainable development and in particular provide for the beneficial remediation of the brownfield Works part of the Site for residential use with ancillary retail unit.

0.13.4 The many benefits associated with the Proposals are summarised as follows:-

- A once and for all solution to the remediation of the contaminated Works part of the Site for beneficial residential use;
- Provision of up to 400 new homes in close proximity to an area of significant employment;
- Contribution toward the 5 year supply of housing within Leeds City including affordable housing;
- Associated Highway Works including Rodley and Horsforth roundabouts, a bus gate to restrict vehicular access movements other than buses from Calverley Lane (north) to the A6120, junction improvement to Calverley Lane (south) and pedestrian footway and crossing points on part of the A6120 and A65;
- Funding for a bus service (half hourly 0700 to 2200 hours each day of the week for a 10 year period) to link the residential development on the Works with Horsforth Town Street, schools and the train station Residential Travel Plan that promotes residents to travel to and from the works by sustainable travel modes including provision of Metrocards to residents;
- Enhanced pedestrian and cycle links to the wider rights of way network in the locality of the Site;
- Provision of land for allotments and opportunities for increased community use of the Sports Ground.
- A contribution towards education provision;
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- Design and Construction mechanisms including Code for Sustainable Homes Level 3 including the use of on-site renewables and energy technologies as appropriate;
- Creation of jobs and an opportunity for local businesses to supply goods and services during the redevelopment of the Works for residential use with ancillary retail unit;
- Landscape planting on the Works with associated biodiversity and landscaping measures to assimilate this part of the Site into the wider environment and the adjacent Green Belt;
- Beneficial effect on the setting of the Listed Buildings and Conservation Areas in the locality of the Works; and
- Reduced quantities of surface water run off from the Works entering the River Aire.

0.13.5 It is considered that the Proposals accord with the development plan and other material considerations including relevant national planning policy guidance and statements.
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Application Drawings
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Illustration Drawings