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RIGID GROUP LTD
SELBY DEVELOPMENT
ENVIRONMENTAL STATEMENT

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VOLUME 1

NON-TECHNICAL SUMMARY

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1.0 INTRODUCTION

1.1 Rigid Group Ltd – Selby Development

Rigid Group Ltd propose to undertake development of their site at Denison Road, Selby.

The main objectives of the proposed scheme are:

- to improve efficiency, by rectifying some existing layout inefficiencies that have developed over the long history of the site;
- to maintain the economic viability of the site operations by renewing some of the current old, obsolete conversion machinery with up to date equipment and handling systems;
- to increase production of corrugated products by introducing a site layout with potential for expansion and by installing additional conversion machinery;
- to increase the on-site utilisation of paper produced by Rigid Paper Ltd, by facilitating increased production of corrugated products;
- to reduce nuisance caused to local residents by moving the distribution warehouse away from housing along Denison Road.

1.2 Purpose of the Environmental Statement

This Environmental Statement (ES) has been prepared by Scott Wilson on behalf of Rigid Group Ltd, in accordance with the requirements of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999, and has been produced to accompany the Planning Application.

The purpose of the ES is to summarise the Environmental Impacts of the proposed scheme and to ensure:

- that relevant environmental issues are assessed appropriately;
- that potential environmental impacts, associated with either the construction or operational phase of the proposed scheme, are identified, together with appropriate mitigation measures;
- that interested parties are given the opportunity to address any relevant issues.

Preliminary details of the proposed development were supplied to Selby District Council for the determination of a scoping opinion. The scope of the Environmental Impact Assessment, as reported in this Environmental Statement, was subsequently defined and agreed at a meeting held between the Client's representative, Scott Wilson and Selby District Council on April 9th 2002. The proposals have also been discussed with the Environment Agency, Highways Authority (North Yorkshire County Council) and the County Archaeologist, both before and during the preparation of the ES.

The Environmental Statement presents the scheme proposals and the results of specialist assessments in a clear and unbiased manner and is structured as follows:

Volume 1 – Non-Technical Summary

Volume 2 – Main Text, Figures and Appendices

2 SCHEME DESCRIPTION

2.1 Rigid Group Ltd

Rigid Group Ltd operates three separate businesses on its Denison Road site at Selby, North Yorkshire. These are: Rigid Paper Products Ltd, Rigid Containers Ltd and Rigid Charta Ltd. The site location is shown in Figures 1.1 and 1.2.

Rigid Paper Products Ltd manufacture paper and board by processing baled waste paper. Rigid Containers Ltd, the largest customer of Rigid Paper Products Ltd, convert paper into double-faced corrugated board, which is subsequently converted into boxes and trays. Rigid Charta Ltd convert paper into single-faced corrugated material suitable for protective packaging, which is distributed in roll or cut sheet form. The activities of Rigid Paper Products Ltd are subject to Pollution Prevention Control (PPC) and the company has recently received PPC consent from the Environment Agency permit No. BJ 8278, 28 February 2002).

2.2 The Proposed Scheme

Rigid Group Ltd's Selby Development primarily involves extending the existing operations undertaken by Rigid Containers Ltd. The scheme will involve: construction of extensions to the existing buildings on site, to the east, north and west; replacement of the Conversion Plant building in the south-east of the site by a new Reel Storage Warehouse for Rigid Paper Products, as the current reel storage area will be taken over by Rigid Containers Ltd; and relocation of the current Rigid Containers Ltd loading and trailer parking area from the south-east of the site to the north-west of the site.

It is proposed that the development will be undertaken in two phases:

Phase 1: September 2002 to July 2003: Development of new Corrugator Bay, North Extension and West Extension No. 1 Bay; and

Phase 2: July 2005 to January 2007: Development of West Extension Bay No. 2 and Bay No. 3, and development of new Reel Storage Warehouse

A plan of the proposed development, showing the two phases of construction, is presented in Figure 2.1.

The works will require construction of new buildings and demolition of several redundant buildings on site, together with demolition of the existing Conversion Plant building in the south-east of the site. All demolition works will take place in Phase 2 of the development. New buildings will be constructed of galvanised steel and steel cladding. In addition to the building construction works, the development will require installation of services, surfacing and drainage works for new lorry loading, trailer park and car parking areas, and new landscaping along the Denison Road frontage.

The eastern extension will involve construction of a new Corrugator Bay. To facilitate this, an additional area of land (approximately 0.36 Ha) is to be purchased adjacent to the north-east boundary of the site. Construction of the new Corrugator Bay will also require diversion of an existing public footpath. The footpath diversion is currently being progressed through the Town and County Planning Act, Section 257 (Footpath Diversion), by North Yorkshire County Council. It is understood that initial consultations have raised no objections to diversion of the route.

The main construction access for the works will be from Denison Road, via the current goods vehicle entrance, with the main construction compound in the north-western part of the site. There may also be occasional access, for purposes of construction on the eastern side of the site, via Carr Street, through the former shipyard area.

2.3 Environmental Benefits of the Scheme

The main environmental benefits of the proposed development are perceived to be:

- an increased number of staff employed at the site, due to increased production. Completion of Phase 1 is expected to result in an additional 18 staff being required whilst a further 29 will be required on completion of Phase 2;
- increased job security for current employees of Rigid Group Ltd in Selby;
- a reduction in the level of nuisance due to noise and diesel fumes associated with heavy goods vehicle movements on site, due to Rigid Containers Ltd's distribution and lorry loading area being relocated from the front south-east corner of the site, which is adjacent to Denison Road, to the rear north-west corner of the site;
- a reduction in the level of potential nuisance due to noise associated with fixed plant operated by Rigid Containers Ltd, due to introduction of new machinery, housing of the Corrugator machine within a building which is enclosed on all sides, and relocation of the conversion plant further away from residential properties on Denison Road;
- a reduction in localised air quality impacts associated with operation of fork-lift trucks, through introduction of an automated handling system;
- improvements to the public footpath to the east of the site.

2.4 Scheme Alternatives

Two main alternatives to the proposed development were considered:

- 1) construction of new Corrugator Bay to north of existing buildings; and
- 2) construction of new Corrugator Bay along eastern boundary, but within current site boundary.

Alternative 1 would not require any new land acquisition, however by placing the Corrugator Bay along the northern boundary, there would be insufficient area available for installation of an automated handling system. This would reduce the potential increase in production capacity and would require the

continued use of fork-lift trucks to transfer material from the Corrugator to the PFG plant.

Alternative 2 would similarly not require any new land acquisition, however it would result in a reduction in available warehouse storage capacity which, in turn, would reduce production capacity and subsequently reduce the benefits associated with new employment opportunities and increased job security for current employees.

Demolition and construction activities associated with the two alternatives above would be similar to those for the proposed scheme, as described in the Environmental Statement –Volume 2 – Main Text.

3 SUMMARY OF SCHEME ENVIRONMENTAL IMPACTS

3.1 Planning and Policy Context

The development proposals are generally supported by national and regional policy in relation to economic development, planning and pollution control and by the local development plan which comprises the North Yorkshire County Structure Plan (NYCSP) and the emerging Selby District-Wide Local Plan. Key elements of the local plans include Policies 14 and 15 of the NYCSP which are supportive of the expansion of existing firms, Policy T11 of the NYCSP, which supports development where it can be accommodated on the local transport network, and Policy EMP6 of the Selby District-Wide Local Plan, which supports expansion of existing employment uses subject to there being no adverse highway, nature conservation or amenity (visual or residential) effects.

Expansion of the activities of Rigid Containers Ltd on the site will secure existing jobs and ensure further employment opportunities for around 47 new staff, whilst the results of a Transport Assessment undertaken for the proposed development (see 3.2.1 and 3.3.1 below) show that the proposed development will not result in detriment to highway safety either during the construction phase or subsequent operation.

There are a number of potential amenity issues associated with the development during construction, primarily associated with noise, dust, and the need to demolish a number of existing buildings which are known to contain asbestos. These, however, will be minimised through the use of a Construction Management Plan (CMP) which will incorporate appropriate mitigation measures as identified for the separate topic areas (see below and Tables 1 and 2).

Potential effects on amenity during the operation of the completed development are likely to improve residential amenity as the focus of activity will be moved away from the front of the site adjacent to Denison Road, to the rear of the site.

The required footpath diversion, if granted, will be undertaken in such a way as to support Policy T8 of the Selby District-Wide Local Plan, and will result in a marked improvement to this footpath which is currently impassable.

3.2 Summary of Environmental Impacts During Construction

Construction works for Phase 1 of the scheme will commence in September 2002 and should be completed by March 2003.

Construction works for Phase 2 of the scheme are anticipated to start in July 2005 and to be completed in September 2006.

A summary of the construction impacts associated with the Phase 1 and Phase 2 construction phases are presented in Tables 1 and 2.

3.2.1 Traffic and Transportation

Construction impacts associated with traffic and transportation are based on a Transportation Assessment (TA) which was undertaken for the scheme. The scope of the TA, and the methodology to be used, was presented to the Local Highway Authority, North Yorkshire County Council, as a Scoping Statement. A copy of the complete TA is included in Volume 2 – *Main Text*, of the Environmental Statement, as Appendix 1.

The main transport impacts of the development will occur during the construction phase for both Phase 1 and 2. The volume of traffic associated with construction is, however, anticipated to be small, with a maximum of 26 vehicles in any one hour at the peak of construction. The main impact of the temporary traffic increases will be along Denison Road and Abbots Road in Phase 1, with possible limited impacts also on Carr Street if access to the east side of the development through the former shipyard is required. Impacts on Carr Street will be reduced by using this route only when essential and by restricting working hours via this route to 0700 to 1800 on weekdays only.

In Phase 2 it is assumed that construction traffic will use the Selby By-pass and East Common Lane and that, therefore construction traffic will only impact Denison Road and not Abbots Road. It is assumed that the relevant highway authorities will devise a signage scheme to maximise use of this route by heavy goods vehicles. It is further recommended that Rigid Group Ltd ensure use of the new route by making it a contract condition for contractors and suppliers that they adhere to the designated route where appropriate.

3.2.2 Noise and Vibration

Existing noise levels at residential properties to the south and east of the site are typical of a suburban location with a mixture of industrial and traffic noise sources. Existing noise levels at the two residential properties Lock House and Bridge House immediately to the north west of the site are fairly high and dominated by constant industrial noise likely to be associated with existing operations on the site. Existing maximum night-time noise levels at all of these receptors are likely to prevent occupants from sleeping with the windows open.

Phase 1 construction noise will have only a minor impact at residential properties to the south and east of the site such as Denison House. However Phase 2 construction noise during the demolition and construction of the new reel storage warehouse and trailer and car park areas will have a substantial impact on Denison House if left unmitigated. The installation of a 3m high

close boarded wooden noise barrier along the eastern site boundary will reduce this impact to minor.

Phase 1 and 2 construction noise at residential properties to the north west of the site will be substantial if left unmitigated, particularly during the construction of the trailer park, north car park and demolition of existing buildings. However the installation of a 3m high close boarded wooden fence along the north west boundary will reduce this impact to minor.

Piling required for building foundations is the only potentially significant source of construction vibration. Phase 1 and 2 construction vibration will have no impact on neighbouring building structures. The impact at all residential properties in terms of nuisance to occupiers during Phase 1 is likely to be minor. During Phase 2 it is possible that worst case vibration levels may result in adverse comments from residents. Actual vibration levels are controlled by site specific factors therefore it is recommended that vibration monitoring be carried out at the start of Phase 2 piling operations to determine if mitigation measures are required.

3.2.3 Air Quality

Current baseline air quality levels in Selby are dominated by traffic and industrial sources within Selby and the surrounding area.

The orientation of the site with residential receptors upwind to the west and south, the adoption of good site management procedures and best practice measures on site, including dust suppression measures, and the boundary fences required to reduce construction noise, will ensure that the impact of construction dust on existing residential properties is mitigated and therefore the impact is likely to be minor at most.

3.2.4 Landscape and Visual

Construction activities during Phase 1 will be visible from the rear of Lock House and Bridge House, both of which are Grade II Listed Buildings, and from the front of 14 properties located on the north bank of the River Ouse. The severity of the effects on residents of these properties is considered to be minor. There will be minor visual effects on pedestrians using the footpath to the north of the River Ouse. There would also be minor visual effects on pedestrians using the footpath on the south bank of the River Ouse, however this footpath is temporarily closed.

Construction activities associated with demolition works in the south-east of the site, and construction of the new Reel Storage Warehouse during Phase 2 will be visible from the front of 37 properties on Denison Road, the rear of 25 properties on Volta Street, and either the front or rear of 18 properties on Pagnell Avenue. Visual effects on residents along Denison Road will be of moderate severity, whilst visual effects on residents of Volta Street and Pagnell Avenue will be minor.

There will, in addition, be visual impacts associated with Phase 2 construction works, which will affect residents of Lock House and Bridge House, residents of properties on the north bank of the River Ouse, pedestrians at Selby Lock

and using the Trans-Pennine Trail, pedestrians using the footpath on the north bank of the River Ouse, and pedestrians using the footpath on the south bank of the River Ouse, if this is reopened. Visual effects on residents of Lock House and Bridge House are considered to be of moderate severity, with effects on pedestrians using the Trans-Pennine Trail also considered to be moderate. All other effects due to visual impacts during Phase 2 construction should be minor.

The vicinity of the Rigid Group site comprises three distinct landscape and townscape character areas (LCAs): the River Ouse and riverside industry LCA; the Selby Canal corridor LCA; and the East Common Residential Estate LCA.

The most significant landscape effects during construction would be experienced at East Common Residential Estate, during construction of the new Reel Storage Warehouse in Phase 2, as there will be little screening between the site and the adjacent residential area. There will also be minor effects experienced in the Selby Canal Corridor and the River Ouse and riverside industry Landscape Character Areas, during construction in both Phases 1 and 2.

3.2.5 Water Resources and Drainage

The key water resources likely to be affected by the proposed construction works are the River Ouse, Selby Canal and groundwater in the Sherwood Sandstone Major Aquifer underlying the site. In addition, the pond in the eastern part of the site currently owned by Rigid Group Ltd, is a receptor susceptible to potential impacts during construction works associated with the construction of the new Reel Storage warehouse, in Phase 2, and, to a lesser extent, the construction of the new Corrugator Bay, during Phase 1.

Previous site investigations have identified some hydrocarbon contamination in soils and shallow groundwater on the site. Therefore, in addition to potential impacts which are generally associated with construction sites adjacent to watercourses, such as uncontrolled run-off from the construction areas, spillage or leakage of fuel, oil other liquid chemicals, deposition of solid materials, such as excavation spoil or construction materials either directly or indirectly into surface drains, the pond or the nearby watercourses, there is also potential to increase the risk of contamination of water resources by creating new pathways via which existing hydrocarbon contamination may reach the surface watercourses or underlying groundwater. The extent of existing contamination on the site, however, is such that all potential impacts may be mitigated by use of good practice and by adherence to appropriate guidance produced by the Environment Agency.

Impacts which may occur during the Phase 2 construction phase are similar to those during Phase 1 construction, though the risk to the pond is increased, given its proximity to the proposed new Reel Storage warehouse and the need to disturb an existing waste ink storage tank area where there may be some ground contamination. As for Phase 1, there should be no significant effects on water resources during Phase 2 if the suggested mitigation measures are adopted.

3.2.6 Land Contamination and Waste Management

Phase 1 of the proposed development will require ground works, which include excavations for service trenches, foundation works, and subsequent construction works. Ground works will disturb ground which may be contaminated by hydrocarbons and/or inorganic contaminants such as lead and other heavy metals, and create dust which can be inhaled by construction workers, site employees, visitors to site, or by other people in the near vicinity, such as local residents. The actual concentrations of contaminants that would be present in any dust created is unknown. It is not expected that these would be sufficient to pose a serious risk to human health, however, mitigation measures will be adopted to minimise dust emissions and therefore minimise potential effects of inhalation of potentially contaminated dust.

Ground works will also produce spoil material. Where this material is shown not to be contaminated, it will be reused on site wherever possible. Where there is excess spoil material, or where spoil material contains concentrations of contaminants which render it unsuitable for reuse on site, the spoil will require off-site disposal at a suitably licensed landfill. All spoil or other waste material will be disposed of in accordance with the Waste Management Licensing Regulations (1994) and, if relevant, the Special Waste Regulations (1996, as amended).

Phase 2 of the development will require excavation and construction works similar to those to be undertaken in Phase 1. In addition, however, there will be a requirement to demolish a number of existing buildings on site. Most of these have asbestos cement roofs and may have other sources of asbestos-containing materials, such as asbestos cladding. The current conversion plant buildings in particular, are known to contain significant quantities of asbestos cladding. Asbestos surveys of all these buildings will be required and all asbestos will be removed and disposed of by a licensed contractor in accordance with the Asbestos Licensing Regulations (1983, as amended) and the Control of Asbestos at Work Regulations (1986, as amended) and the Special Waste Regulations (1996, as amended). Correct removal and disposal of all asbestos will mitigate any potential effects on construction workers, site employees, visitors or other members of the public in the vicinity of the site.

3.2.7 Ecology

There are no statutory designated sites of ecological importance in the vicinity of the site. The main sensitive receptors are the surrounding water bodies, the River Ouse, Selby Canal and the pond to the east. The pond, and the area around the pond, is the most important in terms of ecological interest and the development. This area has been inspected and is considered to be of importance for nature conservation at a district level. A mature grass snake, also considered to be of importance at a district level, was observed in this area. The pond and surrounding habitat provide cover for small mammals and invertebrates which form a large part of the diet of the grass snake. The pond supports substantial invertebrate populations which may support considerable amphibian populations. A smooth newt, considered to be of local importance for nature conservation, was observed in the pond. No water vole activity was

observed during the site survey, although the habitat immediately surrounding the pond is considered potentially capable of supporting water vole. It should be noted, however, that the impact of the works on the pond area will be relatively minor, the greatest potential for impacts occurring in this area will be during Phase 2, with the construction of the new Reel Storage Warehouse adjacent to the pond area.

The main part of the site was inspected for nests and nesting birds and for evidence of past and present bat activity, but none was identified. The pond area was not inspected for nesting birds as this area will remain largely unaffected by the development proposals.

The construction phases of the projects will cause some land take of habitats supporting amphibians and reptiles, and have the potential to cause localised, temporary contamination of land, water and possibly air. The affected areas are, however, mainly areas of hard-standing or of overall low value for nature conservation. Potential contamination of land, water and air, via, for example, dust deposition, uncontrolled surface run-off or spillages, will be mitigated by the use of best practice measures as referred to under sections 3.2.3, 3.2.5 and 3.2.6. Potential impacts on nesting birds will be mitigated by avoiding any clearance of vegetation during the breeding season (March to September).

3.2.8 Archaeology and Cultural Heritage

It is considered that there is negligible potential for archaeological remains of prehistoric, Roman or medieval date within the development area. In the northern part of the site, the remains of the Lazy Cut, dating from the late 18th Century, almost certainly survive in buried form, whilst other industrial features associated with the canal may survive in buried and truncated form. These features are likely to be of negligible to local importance.

The extension to the east of the current site, for construction of the new Corrugator Bay, extends into an area of land which formerly contained a travelling crane. There is, however, no evidence of any archaeological remains in the area, other than the remains of the Lazy Cut.

There is no evidence of any features of archaeological interest in the southern part of the site.

The only Listed buildings nearby, which are considered likely to be affected by the scheme, are Lock and Bridge Houses. These are considered to be of local importance.

None of the existing buildings on site, which are scheduled for demolition, are considered to be of archaeological value.

Construction impacts during both Phase 1 and Phase 2 will be associated with the disturbance of ground in the north and north-western parts of the site, during piling works for foundations, and excavations of trenches for installation of services. The severity of these impacts is considered to be slight to moderate, given the previous extensive development and building construction in this area. A watching brief will be maintained throughout construction works and any archaeological remains of local importance which may be encountered will be recorded.

There will also be some visual encroachment on Lock and Bridge Houses during construction. The effect is not considered significant, though the severity of the impact will be reduced by the construction of 3m high, close boarded fences to act as noise barriers along the rear of these properties.

3.2.9 Social Amenity

As most parts of the proposed development will take place within the existing site, which is privately-owned by Rigid Group Ltd, there is little opportunity for impacts on social amenity to arise, other than those already addressed in the previous sections on Planning, Noise and Vibration, Air Quality, Traffic and Transport, and Landscape and Visual. The main construction impacts on social amenity will be those associated with construction noise and dust. Diversion of the public footpath will be necessary during construction, however, as the footpath is currently impassable, this will not have a significant effect on access through the area.

There may be short-term impacts associated with dust and construction traffic during the construction phases, though the magnitudes of these are likely to be slight. The methodology used to assess these impacts has previously been described in the relevant chapters. The impacts and the significance of the resultant effects are briefly discussed below.

3.2.10 Environmental Control During The Construction Phase

The sections above highlight that there is potential for environmental impacts to occur during the demolition and construction activities associated with the development, but that through the implementation of appropriate methods of mitigation, such impacts can be controlled and minimised. Many of the procedures to be adopted are termed Best Site Practices and are routinely used at construction sites. Such methods should be part of the Construction Management Plan.

3.3 Summary of Environmental Impacts During Operation

Phase 1 of the development will become operational in July 2003. Phase 2 of the development is anticipated to become fully operational in January 2007.

A summary of the operational impacts upon completion of Phases 1 and 2 of the proposed scheme are presented in Tables 1 and 2.

3.3.2 Traffic and Transportation

Operational impacts due to traffic and transport are based on the Transport Assessment prepared for the scheme and presented in Appendix 1 of Volume 2- *Main Text*, of the Environmental Statement.

The volume of operational traffic associated with the development is minor and are considered not sufficient to have a significant effect on either Denison Road or on Abbots Road. In Phase 2, it is assumed that heavy good vehicles (HGV) will use East Common Lane and Selby By-pass, thus removing HGV from Abbots Road. Again, it is assumed that the relevant highway authorities will devise a signage scheme to maximise use of this route by heavy goods vehicles. It is further recommended that Rigid Group Ltd ensure use of the new route by making it a contract condition for contractors and suppliers that they adhere to this designated route where appropriate, and that Rigid Group Ltd also produce a leaflet for employees, visitors and good in/out operators, to identify the designated access route.

3.3.3 Noise and Vibration

Internal machinery noise in both the Corrugator building and the north and west extension will have no impact on existing noise levels at the nearest residential properties following Phase 1 and Phase 2 and, in the absence of other significant noise sources, will not prevent occupants from sleeping with the windows open. As a matter of good practice the loading bay doors in the Phase 1 and Phase 2 extensions should be kept close when not actively in use.

The impact of the required roof fans in the Corrugator building must be assessed when the location and specification is known and suitable attenuators recommended if necessary.

The Phase 2 west extension is likely to provide some shielding for Lock House and Bridge House from existing noise sources on the site.

Phase 1 and 2 HGV movements in the trailer park at night will have a moderate impact on Lock House if left unmitigated. The installation and retention of the 3m high close boarded wooden fence along the north west boundary south of Lock House (as part of the earlier Phase 1 construction noise mitigation) will reduce this impact to minor. The installation of the fence will also enable occupants to sleep with the windows open, in the absence of other significant noise sources. In addition operational procedures should be put in place to ensure the movement of trailers located on the site boundary is not required at night.

No HGV movements will occur at the south of the site associated with the existing Conversion building between Phase 1 and 2. Approximately 8 movements per day will occur between 6am and 6pm following Phase 2, a substantial reduction from the existing 20 movements per day. In addition loading and unloading of the HGVs will occur inside the new reel storage warehouse as opposed to in the open yard as currently occurs. The impact of noise from HGV movements following Phase 2 on residential properties to the south and east of the site will be minor and will not prevent residents, in the absence of other significant noise sources, from sleeping with the windows open.

The noise impact of additional traffic on Denison Road and Abbots Road following Phase 1 will be imperceptible compared to baseline traffic noise levels. Due to the opening of the Selby bypass, Phase 2 operational traffic

will no longer use Abbots Road, the impact of additional Phase 2 operational traffic noise on residents of Denison Road will also be imperceptible.

3.3.4 Air Quality

A review of existing air quality data indicated that current and future baseline concentrations of the seven pollutants benzene, 1,3 butadiene, CO, Lead, NO₂, PM₁₀ and SO₂ in 2002 2003, 2007 and 2022 will all be well within the air quality objectives.

Existing on site emissions to air from the site are controlled by the Environment Agency as part of the process authorisation for Rigid Paper Ltd. No change in on site emissions is predicted due to the operation of Phase 1 or Phase 2 of the development.

Baseline traffic emissions from traffic on Denison Road and Abbots Road are well below the air quality objectives for benzene, 1,3 butadiene, CO, NO₂ and PM₁₀ at the nearest residential receptors. In addition the opening of the Selby bypass will remove operational traffic from Abbots Road.

Emissions from the additional traffic on Denison Road and Abbots Road due to the operation of the development in 2003, 2007 and 2022 will have virtually no impact on air quality at the nearest residential properties.

3.3.4 Landscape and Visual

Upon completion of Phase 1 there will be minor visual effects on residents of Lock House and Bridge House, with the new buildings being visible from the rear of these houses. On completion of Phase 2, the potential effects on these residents will have increased to moderate. However, this will be mitigated by planting of new trees along the boundary behind these houses.

There will be no visual effects for any other receptors on completion of Phase 1. On completion of Phase 2, there will be minor to major visual effects on residents of properties along Denison Road, Pagnell Avenue and Volta Street, and on pedestrians at Selby Lock and on the Trans-Pennine Trail. The greatest visual effects will be on residents of No. 58 Denison Road and adjacent properties, which are closest to the new Reel Storage Warehouse.

The new Reel Storage Warehouse (RSW) has been designed to include a double portal, thus minimising the height of the ridgeline and by incorporating a 2.1m high brick plinth on the south and west elevations, to enhance integration of the building with the existing red brick architecture on site. In the south-east corner, the front boundary wall will be retained and a Golden Privet hedge planted along its inner edge to help screen ground level activity from Denison Road. The mixed ornamental shrubs found to the east of the site will be extended as far as the junction and entrance at Pagnell Avenue, to screen direct views from this part of Denison Road towards the gable end of the RSW and an area of staff car parking. A row of regularly spaced fastigate hornbeam trees will be planted along Denison Road frontage to the west of Pagnell Avenue. These will echo trees already planted further to the west and will partially screen and help to mitigate the effects due to the RSW on the most adversely affected residents in Denison Road. Additional tree and shrub

planting will be carried out in the vicinity of car parking areas and site entrances.

There will be permanent effects on the Landscape Character Areas of the East Common Residential Estate and the Selby Canal corridor. These will be moderate and minor respectively. Mitigation will be as for the visual effects identified above.

3.3.5 Water Resources and Drainage

The key water resources which might be affected by the operation of the proposed development are the surface water drains, the River Ouse, to which surface drains in the northern part of the site discharge, public surface water sewers to the south of the site, and groundwater in the Sherwood Sandstone Major Aquifer underlying the site.

As operation of the new development will not require any significant increase in water supply to the site, there will be no increase in demand on either the Major Aquifer or on other public water supplies.

As most of the site currently has a hard surface cover, it is not anticipated that there will be a significant increase in the volume of drainage water from the site. The development will include the provision of new trailer and car parking areas, all of which will be resurfaced. Leakages of oil or fuel from vehicles in these areas have the potential to impact upon ground or surface water. It is the intention that new surface drainage will be installed in these areas as part of the development. The detailed design of these drainage systems will incorporate silt and/or oil interceptors as considered appropriate and as agreed with the Environment Agency, in order to prevent potential discharge of oil-contaminated water to the River Ouse or to public surface water sewers.

As there is some known hydrocarbon contamination present in soil and shallow groundwater underlying the site, there is potential for new surface drains to create pathways for the migration of this contamination to the nearby watercourses. To avoid this, new drains and service trenches will be routed away from known areas of contamination, if possible, and, if contamination is encountered during excavation works, contaminated material will be removed. It is also recommended that the integrity of the existing surface drainage system is investigated and remedial works undertaken as necessary in those areas where the new works may be affected.

An existing waste ink storage tank will be removed and a new storage tank provided adjacent to the new extension buildings in the north-west of the site. This tank receives waste water from Printing-Folding-Glueing units which form part of the conversion plant operated by Rigid Containers Ltd. The ink-contaminated waste water is periodically collected by tanker and removed for off-site treatment and disposal. To avoid the potential for spillage or leakage from this tank resulting in contamination of the underlying ground, groundwater, or surface drains, the tank will be placed on an impermeable surface within an appropriately bunded area.

Provided that the mitigation measures proposed are adopted, there should be no adverse effects on water resources or drainage as a result of the new development.

3.3.6 Land Contamination and Waste Management

The operational activities associated with the development on completion of both Phase 1 and Phase 2 should not result in any new land contamination, though there is potential for minor ground contamination through leakages of fuel or oil from lorries or due to spillage or leakage from the new waste ink tank. As both these will have effects on water resources, they are considered under Water Resources and are therefore not considered further here.

It is not anticipated that the operational activities of the completed development will produce a significantly increased volume of waste materials, although there will be an increase in the volume of ink-contaminated wastewater produced by the conversion plant processes (see above).

Previous site investigations have, however, identified that putrescible material present in in-filled sections of a former canal cut in the north of the site, and in part of the pond which originally extended under the current conversion buildings, may generate ground gases. These have the potential to build up within buildings to hazardous concentrations. It is recommended that measures to prevent ingress of ground gases into buildings in these areas are incorporated as part of the detailed design.

3.3.7 Ecology

The proposed development will have limited permanent impacts on nature conservation given the limited nature of semi natural habitats or protected species within the development area (see Section 3.2.7). The main area of ecological interest, the pond and surrounding area, will not be affected by permanent land take.

3.3.8 Archaeology and Cultural Heritage

There should be no additional impacts on buried archaeological remains during operation of the development. There will be permanent effects on Lock and Bridge Houses, due to encroachment of the buildings on views from these properties. These will be mitigated, during Phase 2, by tree planting along the rear boundary of these properties.

3.3.9 Social Amenity

Long-term impacts on social amenity, that is, impacts on public enjoyment of and access to the area, are those associated with the proposed footpath diversion and with noise. Operational noise impacts have been described above, together with the mitigation measures to be adopted. The diversion of the public footpath will be permanent, but will only entail moving the footpath route about 15m to the east of its current alignment. As part of the works, Rigid Group are proposing to slightly raise the level of the footpath where it passes to the north of the pond, in order to alleviate the current water logging problem. This will be a benefit of the proposed scheme.

The scheme will also increase job security at the site and result in an increase in numbers employed at the site. This will also benefit the local community.

4 CONCLUSIONS

The Environmental Statement has undertaken a comprehensive assessment of the environmental implications of the construction and operation of the proposed Rigid Group development at Selby. If the mitigation measures defined therein are implemented, there should be no insurmountable environmental concerns and residual effects should be minimised.

Table 1 Environmental Impacts Table : Phase 1

(table to insert – see separate file; table is same summary table as for Main Text document)

Table 2 Environmental Impacts Table: Phase 2

(table to insert – see separate file; table is same summary table as for Main Text document)

12. ARCHAEOLOGY AND CULTURAL HERITAGE

12.2 Introduction

This chapter considers the effects of the proposed development upon the local cultural heritage resource. Cultural heritage resources comprise upstanding buildings (above ground) and buried structures and remains which may be known of or which may await discovery.

National policy relating to cultural heritage resources is contained in Planning Policy Guidance Notes 15 (PPG 15) and 16 (PPG 16). In broad terms, planning policy seeks the protection and retention of cultural heritage resources *in situ* where possible.

National policy is also reflected in the North Yorkshire Heritage Strategy, published as a Consultation Draft by North Yorkshire County Council in December 2000.

12.2 Assessment Methodology

A preliminary desk-study was undertaken, comprising a search of North Yorkshire County Council's Sites and Monuments and collation of historical maps from various sources. A detailed desk-based archaeological assessment of the site was subsequently undertaken, which included:

- A site visit and walkover survey to examine the topography and current land use, and to identify any previously unrecorded above ground archaeology;
- Desk-top research of information contained in and provided by the County Site and Monuments Record, documentary and cartographic searches of relevant material in published and unpublished sources, and information about Scheduled Ancient Monuments, Registered Battlefields and Registered Parks & Gardens, obtained from English Heritage.

A copy of the desk-based archaeological assessment report is contained in Appendix 4 of this Environmental Statement

In addition, the following site investigation reports have been reviewed:

- Phase 1 Environmental Risk Assessment, April 1999, document ref. R))92/21728-033-402
- Phase II Soil and Groundwater assessment, July 1999, document ref. 21728-037-420/RHP/TNJ/JRS/ct;
- Additional Phase II Soil and Groundwater Investigation, October 2000, document ref. 45590-001-420/TNJ/RHP/ct
- Report on site investigations carried out by Crossfield Consulting, report No. CCL00520.AK21;

At the time of writing, there is no nationally agreed method of measuring the relative importance of archaeological monuments. It is possible, however, to distinguish between monuments of National, Regional, Local and Negligible importance, as defined below:

- **National** Monuments that are scheduled and protected under the Ancient Monuments and Archaeological Areas Act (1979), those suitable for scheduling, or considered to be of national importance but not covered by the Secretary of State's criteria for scheduling.
- **Regional** Sites listed in the Sites and Monuments Record (SMR) or other sources which are of a reasonably well-defined extent, nature and site and significant examples in the regional context.
- **Local** Sites listed in the SMR or other sources which are of very low potential or minor importance.
- **Negligible** Areas in which investigative techniques have produced negative or minimal evidence of antiquity, or where large scale destruction of deposits has taken place (eg by mineral extraction)

The potential of a site to contain archaeological remains is defined as High, Medium, Low or Negligible, based upon consideration of its topography and the distribution and nature of recorded archaeological finds in the locality.

The setting of a monument is generally considered on the basis of what can be seen or heard to and from the monument.

Potential impacts on archaeological and cultural heritage receptors may be direct, indirect, temporary or permanent. The severity of impacts has been assessed in accordance with the criteria shown in Table 12.1.

The sensitivity of archaeological and cultural heritage receptors is scaled on the basis of the relative importance of the receptor, i.e. whether the receptor is of National, Regional, Local, or Negligible importance, or the potential of the site to contain archaeological remains (High, Medium, Low or Negligible).

The significance of the effects of impacts upon archaeological and cultural heritage receptors depends upon the magnitude of the impact and the sensitivity of the receptor. For the purposes of this Environmental Statement, significant effects are as defined in Table 12.2.

Table 12.1 Magnitude of Archaeological and Cultural Heritage Impacts

| Severity of Impact | Description |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Severe: | the works require the demolition, in whole or in part, of a building of cultural heritage interest or involve disturbance of more than the surface layer of a site identified as having archaeological potential. |
| Moderate: | the works directly affect land within or adjacent to the curtilage of a building of cultural heritage interest or involve the disturbance of the surface layer of a site identified as having archaeological potential. |
| Slight: | the works are visible from, or encroach upon views from, a building of cultural heritage interest or affect land adjacent to a site identified as having archaeological interest. |
| Negligible: | the works do not have any detectable impact upon the cultural heritage resource. |

**Table 12.2 Impacts on Archaeological and Cultural Heritage Receptors:
 Significance of Effects**

| Importance of Receptor | Potential to contain archaeological remains | Magnitude of Impact | | | |
|------------------------|---------------------------------------------|---------------------|----------|--------|------------|
| | | Severe | Moderate | Slight | Negligible |
| National | High | S | S | S | NS |
| Regional | Medium | S | S | S | NS |
| Local | Low | S | S | NS | NS |
| Negligible | Negligible | S | NS | NS | NS |

S: significant; NS: not significant

Impacts which may give rise to significant effects require mitigation. Impacts which do not give rise to significant effects generally would not require mitigation measures, however mitigation measures may still be recommended if this is considered appropriate.

It is recognised, particularly in the case of possible buried archaeological remains, that there may be a high level of uncertainty as to whether an impact will actually occur. In such cases, recommendations are made on the basis of professional judgement, taking into account available information, interpretation of baseline data and the nature of the works to be undertaken.

12.3 Baseline Conditions

Baseline Conditions - Year 2002

Early History – pre 1770's

Very few pre-Bronze Age finds or sites are known in the Vale of York and no prehistoric sites appear to be recorded in the Selby area. Although a Roman period site is known about 2km to the north of Selby, there appears to be little, if any, evidence of Roman period activity in Selby itself.

Selby Abbey was founded in about 1069 and marked the beginning of the development of Selby. During the medieval period, one focus of Selby's economy was the cloth trade, and Selby continued as a cloth manufacturing centre into the 14th century and beyond. Selby also became established as a port during the medieval period, with lead being shipped from Boroughbridge, via Selby, to London, and remained an important port until the establishment of the Aire and Calder navigation in 1698.

Warehouses were built along Abbot's Staith (NGR SE 616 326), located north of the abbey. There is, however, no recorded evidence of medieval ship building or repairing in Selby itself, with a more likely location for any medieval shipyards, if any existed, being the north-west of the Abbot's Staith.

Despite Selby's importance as a medieval port, there are no recorded medieval or earlier features recorded within the proposed development area. Given the location of the site well away from the medieval centre of the town, it is considered relatively unlikely that the development site will contain medieval or earlier remains.

Sites and Records

The County Sites and Monuments Record contains little recorded information on Selby. A list of entries is provided in the report in Appendix 4. Two of the records relate to features within the development area. These are described below, together with additional information obtained from other historical sources.

SMR number 9515.01000 is a site identified as docks and refers to a cut made from the Selby Canal parallel to the River Ouse in an easterly direction. The cut, which dates from the 18th Century, is shown on historic plans as the Lazy Cut. Goods shipped to the river staiths were transhipped by crane into barges, fly-boats and keels moored in the cut. The cut occupied 8 acres (3.24 Ha) and was held on a 99 year lease by Aire and Calder navigation.

SMR number 9515.01100 is a site identified as Warehouses. A number of warehouses, dating from the 18th Century, stood alongside the canal cut (see above), in addition to a Counting House, a Rigging House, Tarring House and a Sailmakers Shop. None of these buildings remain at above ground level. Some of the warehouses may have been associated with the former Braid Mill (a flax mill). The former Braid Mill subsequently became part of the paper mill. It is not clear how long the original mill building survived. Buildings in the north of the paper mill site, including those on the location of the former Braid Mill, were demolished about 1990. Further information is provided in the section on Historic Maps.

Listed Buildings

The search of the SMR database identified one Listed Building record, located just outside the boundary of the Rigid Group Ltd site, at NGR 462210 432190. The entry, SMR number 9515.02000, refers to a lock at the River Ouse end of Selby Canal. The

lock dates from circa 1775-1778, the date of construction of the canal, and is a Grade II Listed Building.

Inspection of Planning Applications for the area has indicated that Lock House and Bridge House are also Listed Grade II buildings.

Selby Abbey, located in the centre, about 750m west of the site, is a Grade I listed building.

Scheduled Monuments

The nearest Scheduled Ancient Monument is the Abbot's Staithes (County Number 387), located at NGR SE 616 326, about 550m north of the site.

Historical Maps

Historical maps dating back to 1772 have been inspected. These show the proposed route of the Selby Canal. By 1790, the canal had been constructed and the canal cut (Lazy Cut) extended along the northern edge of the current Rigid Group Site. At this time there was also a ropewalk (Mr Foster's Ropery) located immediately south of Lazy Cut, within the development area.

Around 1951, the rope walk was moved further east, outside the proposed development area. To the north of the cut, between the cut and the River Ouse, were several warehouses and navigation cottages. The cut was partially filled in by 1900 and was subsequently in-filled at intervals, being completely filled in by around 1964.

A shipyard, founded in circa 1750, was located to the west of the current canal. A further shipyard (Cochrane's Shipyard) was subsequently established around 1900, on land to the east of Rigid Group Ltd's proposed development area. The historic maps also show an area marked "shipyard" in the west of the development area, from about 1893 to 1958. There are, however, no buildings in the area, apart from a coal wharf in the south part of this area.

South of the shipyard, a brickyard, with associated clay pit(s), was present from pre-1851 to circa 1900. Part of the clay pit, in the form of a pond, is still present today, on land owned by Rigid Group Ltd, to the east of the main site. The more western part of the clay pit was in-filled during the 1950s and is now located under the current Conversion plant buildings in the south-eastern part of the Rigid Group site.

A flax mill (Braid Mill) was present in the north of the development site, in 1893. In 1919, the main part of the proposed development area was occupied by Selby Flax Station, as shown by an indenture of 1919 (Appendix 4). The plant expanded considerably by 1928. At this time, the area to the west of the flax plant, between the plant and the canal, was marked as meadow.

By the 1938 edition of the OS map, the mill was in use as a paper mill - the Ten Acre (Paper) Mills. The original flax mill had either been demolished and rebuilt or extensively reworked. The Lazy Cut had been entirely in-filled to the east of the mill and largely blocked to the west. A single, disused warehouse survived to the east of the mill. To the north of the Lazy Cut, a jetty had been constructed to access the River Ouse from the paper mill. The paper mill itself had expanded to cover much of the proposed development area.

Plans dating from 1939 show proposed warehouses to be built, as part of the paper mill, in the northern part of the site, over the former Lazy Cut, with a transport crane onto the jetty. The foundations of the proposed extension comprise wooden columns set in concrete to a depth of about 2.4m (8 ft) onto a clay bed. In the north-west part of the site, the extension foundations comprised wooden columns encased in concrete to a depth of about 1.4m (4.5 ft). An aerial photograph from 1959 shows the extent of the warehousing along the river frontage. At that time buildings extended up to the current brick boundary wall in the north and almost as far west as the proposed new development.

The OS map of 1964 shows that the original flax mill had been subsumed into the paper mill and that the Lazy Cut had been almost entirely in-filled and had reached its current size. The buildings in the north of the site remained until around 1990 (post 1989 OS map), when most were demolished.

Ground Conditions

Ground conditions on the site reflect the vicinity of the site to the River Ouse, the historic presence of the cut and the former clay pits, and the current industrial nature of the site.

Most of the current site is covered by a hard surface of concrete and tarmac, with occasional trees along the site boundaries and a small area of grass in the north-west of the site.

Reports on site investigations undertaken by URS Dames & Moore in 1999 and 2000, and by Crossfield Consulting in 2002, indicate that the site is covered by a layer of made-ground. The made-ground is variable in type and predominantly comprises up to 0.3m concrete underlain by brick rubble, ash and silty clay. The greatest recorded depth of made ground is in excess of 6m of silt and clay (base of made ground not proven), believed to represent back-filling of the former clay pit in the south-eastern part of the site, but is more typically less than 2m in thickness.

The made-ground is underlain by drift deposits consisting of alluvium overlying the 25 Foot Drift of Vale of York. The drift deposits consist of clays, silts and clayey/silty sands to depths of up to 18m below ground level (bgl). Solid bedrock is present at approximate depths of 17 to 18m bgl, and consists of red and grey medium to fine-grained sandstone of the Sherwood Sandstone Formation.

Perched groundwater was recorded from within the made ground, and within granular layers in the alluvium.

Several trial pits and exploratory holes drilled in the probable location of the in-filled canal cut (Dames and Moore, 1999; Crossfield Consulting, 2002), encountered made-ground and sediments of 0.5 to 2.7m depth, the greatest depth being recorded just to the east of the current Selby Canal. Although variable in composition, these generally comprised gravel, pebbles, brick and silty clay, with occasional wood and coal fragments, overlain in most places by up to about 0.15m concrete.

A borehole drilled in the vicinity of the proposed Western Extension Bay No. 3, encountered an old void or drain, which was probably associated with a former building operated by the paper mill and demolished around 1990.

Future Baseline Conditions – 2007

It is not envisaged that the baseline conditions detailed above will have altered significantly between 2002 and 2007, if there is no development.

12.4 Assessment of Effects

It is considered that there is negligible potential for archaeological remains of prehistoric, Roman or medieval date within the development area. In the northern part of the site, the remains of the Lazy Cut, dating from the late 18th Century, almost certainly survive in buried form. Other industrial features associated with the canal may survive in buried and truncated form. These features are likely to be of Negligible to Local importance.

The extension to the east of the current site, for construction of the new Corrugator Bay, extends into an area of land which formerly contained a travelling crane. There is, however, no evidence of any archaeological remains in this area, other than the remains of the Lazy Cut.

There is no evidence of any features of archaeological interest in the southern part of the site.

The only Listed buildings nearby, which are considered likely to be affected by the scheme, are Lock and Bridge Houses. These are considered to be of Local importance.

None of the existing buildings on site, which are scheduled for demolition, are considered to be of archaeological value.

Phase 1: Construction Phase

The Phase 1 construction works will include piling (vibro replacement works) in the north and north-eastern part of the site, together with excavation works for service trenches. There will also be some piling works required for installation of the new Corrugator machine in the new Corrugator Bay on the land formerly occupied by the shipyard to the east.

Information on the depths of vibro stone columns and piled foundations, or on the depths of service trenches is not yet available. It is assumed that excavations for service trenches will be no greater than about 1.5m depth, however vibro stone columns and piled foundations will extend to significantly greater depth.

Previous construction works in the northern part of the site are likely to have disturbed remains in this area, including the Lazy Cut. These works will have included installation of building foundations as well as service trenches. Limited information is available on the foundations of some of the former buildings in this area (see Section 12.3), however no information is available, at the time of writing, on any redundant service trenches. It is noted that no evidence of historic buried structures were encountered in any of the boreholes or trial pits excavated in the north of the site as part of previous ground investigations (URS Dames & Moore, 1999, 2000; Crossfield Consulting, 2002).

The intended use of piled foundations (including vibro replacement) will limit the amount of further disturbance in this area. On the basis of the criteria defined in

Tables 12.1 and 12.2, the severity of the impacts of the above works would be considered to be Moderate to Severe. Given the extent to which the area has previously been disturbed by other construction works, and the proposed use of piling techniques in this area, however, the severity of the impacts associated with the works is considered to be less than if the site had remained relatively undisturbed since the early 1900s. The potential severity of the impacts is therefore considered to be Slight to Moderate. In addition to the use of piling foundation design, it is proposed that a watching brief is maintained during the construction works to enable any features of local archaeological importance which may be encountered, to be recorded.

The works in the northern part of the site will also be visible from the rear of Lock and Bridge Houses. The severity of this impact is considered to be Slight. Given the local importance of the receptors, and the short-term nature of the impact, the effect is not considered significant and no specific mitigation is proposed.

Phase 1: Operational Phase

The operation of the new development will not involve any ground disturbance, hence no impacts which may affect buried archaeological features are anticipated.

There will be a slight impact on the views from Lock and Bridge Houses. Although, on the basis of criteria in Table 12.2, the effect is not considered likely to be significant, this will be mitigated on completion of Phase 2 by the planting of trees along the rear boundaries of these properties (see Chapter 8 – *Landscape and Visual*)

Phase 2: Construction Phase

The Phase 2 construction works will involve demolition of several existing buildings (Figure 4.1), piling (including vibro replacement) in the north, north-western and southern areas of the site, and excavation of service trenches.

The piling works in the north and north-western parts of the site have similar potential to disturb buried archaeological features as in Phase 1 construction. As for Phase 1, the area has previously been disturbed by previous building works and the effect of the proposed works on buried features will be similar. Potential effects on Lock and Bridge House will also be similar. No specific mitigation measures are proposed, other than the use of piling foundation design.

Phase 2: Operational Phase

As for Phase 1, operation of the completed development should not affect any buried archaeological features. There will be a slight encroachment on the views from Lock and Bridge Houses. On the basis of criteria in Table 12.2, this is not considered likely to have a significant effect, however, it will be mitigated by tree planting along the rear boundaries of these properties, as referred to above.

12.5 Mitigation Requirements

The main mitigation measures proposed are:

- the use of piling foundation design, to minimise disturbance of buried structures in the north and north-western parts of the site;
- maintenance of a watching brief during the construction works, to ensure that any buried remains encountered are duly and appropriately recorded;
- tree planting along the rear boundaries of Lock and Bridge Houses, to reduce the impact of encroachment upon the view from these Grade II Listed properties.

No further mitigation measures are proposed.

12.7 Statement of Significance and Summary

Table 12.3 summarises the impacts identified. Potential construction impacts which may affect the buried features of industrial archaeology interest, located in the area of the in-filled Lazy Cut and dating from around the late 18th century to the last decade, have been identified. The severity of these impacts is considered to be Slight to Moderate. The effect of the impacts will be restricted by the use of piling foundation techniques and the maintenance of a watching brief during construction works. Impacts which affect views from Lock and Bridge Houses have also been identified, during both the construction and operational phases. Given the short-term nature of the construction impacts, and the low sensitivity of these houses, the effect during construction is not considered significant, and no specific mitigation measures are proposed, although the construction of a temporary fence as a noise barrier will also help to screen the works from these two houses (see Chapter 6 – *Noise and Vibration*). On completion of Phase 2, permanent impacts on the view from these houses will be mitigated by tree planting along the rear boundary of the properties.

Table 12.3: Impact Summary Table – Archaeology and Cultural Heritage

| POTENTIAL IMPACT | PHASE (C,O) | SEVERITY OF IMPACT (without mitigation) | SIGNIFICANCE OF EFFECT | MITIGATION | RESIDUAL EFFECT |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| Disturbance of ground in north and north-western parts of the site, during piling for foundations and service trench excavation, with potential to affect features of industrial archaeological interest in the vicinity of the former Lazy Cut and previous buildings in this area | C | Slight to Moderate | NS | Piling foundation design | NS |
| Encroachment upon Lock House and Bridge House, both Grade II Listed Buildings | C, O | Slight | NS | Tree planting on completion of Phase 2, along rear boundary to properties. During construction, construction of fence to act as noise barrier will screen construction works | NS |

C = construction phase; O = operational phase; NS = not significant; S = significant