



Tier Consult Ltd

Unit 5 Office Village, Sandpiper Court,
Chester Business Park, Chester CH4 9QZ
01244 684900

DEACON BUSINESS PARK KNOWSLEY

Demolition Report

16 February 2023

Version 1.0



DOCUMENT CONTROL

Project No :	T-22-2582
Report Status :	Draft
Version No :	1.0
Project Engineer :	Philip Barlow
Date of Issue :	16 February 2023

This report has been prepared by Tier Consult with all reasonable skill, care and diligence, within the best practice and guidance current at the time of issue within the scope of works which have been agreed with the Client. This report is confidential to the Client and Tier Consult accepts no responsibility whatsoever to third parties to whom this report, or any part thereof is made presented, unless this is formally agreed in writing by a Director of Tier Consult before any reliance is made. Any such party relies upon the report at their own risk. Tier Consult disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

Version	Date Issued	Purpose of Issue	Author	Reviewed	Approved
V1.0	16 Feb 2023	Draft	PB	HB	HB



Contents

1. Introduction
2. Building Form
3. External Areas
4. Observations Affecting Demolition
5. Demolition Methodology and Sequencing
6. Completion

List of Appendices

Appendix A	National Building Specification – D20 Demolition
Appendix B	External Photographs
Appendix C	Internal Photographs
Appendix D	Topographic Survey
Appendix E	Extent of Building to be Demolished
Appendix F	Extent of Office and Manufacturing Areas



1. Introduction

- 1.1. Tier Consult have been appointed by EQT Exeter to undertake a pre demolition appraisal report of Deacon Park Knowsley, Merseyside at Post Code L33 7RX.
- 1.2. The building to be demolished is located east of Moorgate Road North and lies immediately south of Knowsley Industrial Estate and comprises 410,000 sq ft of low-rise manufacturing development, with 33,000 sq ft office accommodation at ground floor level to the east elevation, together with 70,000 sq ft office accommodation at first floor to the south. The first-floor office resides over the ground-floor manufacturing area by way of suspended concrete floors. **Appendix F** highlights the extent of these areas.
- 1.3. None of the buildings within the curtilage of the development footprint are to be retained or refurbished. None of the buildings targeted for demolition are listed.
- 1.4. The buildings were originally designed and constructed in the 1960's for industrial manufacturing and have been modified and extended over the years to accommodate various occupiers. Currently, there are a number of tenants within the office accommodation to the east, which fronts the main car park, with the former manufacturing building footprint being used for non-racked bulk storage. The extensive offices at first-floor to the south are spatially designed as a call centre, complete with large canteen facilities.
- 1.5. A topographic survey of the site has been undertaken incorporating both building footprint, carpark/servicing areas together with the circulatory traffic routes. The total area of the site is 87,639 sq metres 8.76 hectares.(See **Appendix D**)
- 1.6. The purpose of the report is to inform the Local Authority and the appointed Demolition Contractor of the structural form, the exterior cladding and the internal fabric of the building.

2. Building Form

- 2.1. The vast majority of the building comprises low-rise manufacturing development approximately 8.0 metres to eaves constructed by way of 8 multi-bay tied trusses at 2.4 metre centres, spanning approximately 25 metres. Internal columns can be observed at 7.2 metre centres, tied at their heads with a valley transfer beam, which supports the intermediate trusses.
- 2.2. Roof trusses are formed using light gauge hot rolled steelwork either bolted or riveted together and support a symmetrical arrangement of corrugated asbestos / steel sheet and single-ply glazing.



- 2.3. Column and beam sections used as the primary supporting members are hot-rolled steelwork which are longitudinally restrained by a bracing system within the perimeter walls. In some areas of the building, particularly to the north, lattice columns have been introduced in order to support horizontal crane rails. The crane has since been removed.
- 2.4. In the south sector of the building, a substantial first-floor office is in evidence, the soffit of the concrete floor which can be observed from within the industrial area below.
- 2.5. Within the east elevation, an at grade level docking area has been recessed into the building footprint by removing a section of the last bay of trusses to the most eastern span. This provides vehicle access into the buildings and allows sheltered loading/unloading within a designated area.
- 2.6. Along the west elevation, a masonry firewall has been constructed to separate the industrial area from the ground floor offices which have a different tenancy.
- 2.7. The roof over the first-floor office area is of a similar construction to those over the industrial area, comprising of light gauge hot rolled steel trusses, however, the roof lights have been covered with a roofing felt.
- 2.8. The external building fabric is clad with steel profiled metal sheeting within a built-up system supported of a symmetrical arrangement of hot-rolled cladding rails. It would appear that this has replaced asbestos sheeting which has since been removed as the building has been modernised. To the south elevation, cavity brickwork has been introduced up to approximately 2.1 metres along the entire elevation.
- 2.9. All ground floor slabs appear to be reinforced concrete, laid to earth and all areas inspected appeared to be of sound construction although the surfaces have suffered abrasion through impact damage and general trafficking.

3. External Areas

- 3.1. The majority of the circulatory route around the building is formed of a tarmac surface, other than the level surface dock area to the east elevation and a row of herring bow lorry parking to the south elevation; both of which are constructed from concrete.
- 3.2. The extensive car park to the west elevation which appears to serve all the on site personnel is constructed using brick pavers served by a tarmac surfaced arterial route adjacent to the building.



4. Observations Affecting Demolition

- 4.1.** There are three central amenity areas within the manufacturing area each with toilets and canteen facilities at first-floor level. Within the central facility, a substation is evident which is understood to provide electricity to the entire building.
- 4.2.** Prior to demolition, the source of electricity from the grid will have to be determined and the substation decommissioned. The substation may provide electricity to some neighbouring buildings that are not within the demise of the building to be demolished and therefore a utility study will be required to fully understand the impact of removing the substation.
- 4.3.** It is understood that a substantial gas main once served the building, and this was observed within the roof of the industrial area. The main is thought to be redundant, however, it will still require purging prior to its removal.
- 4.4.** Asbestos Containing Materials (ACMs) are thought to be present within the building and therefore a full R&D Asbestos Survey is to be undertaken once vacant possession is available. The ACMs are thought to be within the fire protection board, asbestos cement roof sheeting and boarding behind the electrical panels. It may also be present within the decoration and firestopping details. It may also be present within the gutters, rainwater goods and sealant rope to the glazing bars.
- 4.5.** Owing to the age of the building it is entirely feasible that lead paint has been used in the corrosion protection of the structural steelwork and therefore surveys will have to be undertaken prior to the demolition of the frame.
- 4.6.** Adjacent buildings may discharge into the drainage network which facilitates the existing development. It is therefore important that a connectivity survey is undertaken to ensure that isolation of the drainage network following demolition does not compromise the neighbouring plots.
- 4.7.** A pre-demolition site investigation should be undertaken to ensure that the risk of any below slab/foundation contamination is fully understood with a remediation strategy in place to remove any contaminants as part of the demolition process. This includes asbestos impacted soils.
- 4.8.** Concrete cores should be taken from the first-floor slab to the south over the industrial area to ensure that pre-stressed concrete has not been used in the construction of the slab and any associated staircases forming access to the various parts of the building.



5. Demolition Methodology and Sequencing

- 5.1. Prior to any demolition being undertaken, it is essential an asbestos survey and utility connection survey is undertaken together with all the other studies identified in Clause 4.0 above. Prior to removal of the slabs and foundations, the existing drainage network should be camera surveyed and fully understood.
- 5.2. The incumbent demolition Contractor shall serve the appropriate notices to the HSE in respect of asbestos and work in accordance with the Section 81 Notice issued by the Local Authority.
- 5.3. Background air test data and ongoing samples should be taken from the boundary of the structure throughout the demolition exercise and the analysis assessed by a UCAS-accredited laboratory.
- 5.4. There is sufficient room available around the perimeter of the property to undertake the demolition exercise without adversely affecting neighbouring buildings/ properties, however, the incumbent demolition Contractor should develop a full method statement based on the information available within this report and the demolition specification contained within **Appendix A**.
- 5.5. Following disconnection of all services back to the boundary the building contents are to be soft stripped commencing with any asbestos-containing materials thereafter fixtures, finishes, fittings, non-load bearing partitions, suspended ceilings, mechanical pipework, electrical wiring, mechanical plant electrically operated equipment and door sets, together with all timber skirting boards and architraves. All materials are to be housed in the appropriate waste skips prior to their removal from site.
- 5.6. Prior to the structure being removed the external roof and wall cladding are to be removed commencing with any asbestos roof sheeting. It is thought that a large amount of the original asbestos roof sheeting has been removed, however, there is a possibility that this has been 'overclad' and therefore the R&D survey should be closely inspected prior to commencement. All asbestos roof sheets should be removed from inside the building using MUPs wherever possible. Asbestos cement sheets are to be contained within sealed skips prior to removal from site.
- 5.7. All first-floor structures are to be demolished prior to removal of the structural frames in order to safeguard against local instability. Braced frames should remain in place until the primary frame that they support are substantially removed.
- 5.8. All steelwork is to be removed from site as demolition progresses. Stockpiles are to be kept to a minimum owing to the large amount of steelwork that will be generated by the demolition works.



- 5.9.** Ground floor slabs are to remain in place until such time the superstructure is demolished and removed from site. All drains are to be kept free of debris and contaminants.
- 5.10.** Following receipt of the site investigation and any localised remediation works being undertaken, the ground floor slab can be crushed and stockpiled for re-use into the works. All reinforcing bar is to be removed during this process. The concrete is to be crushed to engineering grade 6F2.
- 5.11.** All tarmac is to be tested for the presence of coal tar prior to its removal. Consultation with the Structural Engineer, pertaining to re-use of tarmac scalping into the proposed development works, are to be undertaken prior to removal from site.
- 5.12.** Brick pavers are to be removed from site. Block pavers are to be crushed to Engineering Grade 6F2.
- 5.13.** Building foundations are to be removed to 2 metres below existing ground level with all voids backfilled with site-won 6F2 material.
- 5.14.** All crushed concrete arisings are to be stockpiled in mounds no greater than 4,000 cube and are to be tested for asbestos. Each stockpile is to be numbered and the corresponding test certificate s referenced accordingly.

6. Completion

- 6.1.** On completion the site is to be left clean and level other than for stockpiles and any salvaged materials requested by the Client.
- 6.2.** Waste Certificates are to be provided for all materials removed from site specifically ACMs and any contaminated materials.
- 6.3.** A full post-demolition topographic survey will be undertaken by the demolition contractor and will include the stockpiles and their corresponding volumes.

-----End-----



APPENDIX A

NATIONAL BUILDING SPECIFICATION

C20 DEMOLITION



T_22_2582

Tier Consult Limited

EQT Exeter

Knowsley, Deacon Business Park

Demolition - Deacon Business Park,
Knowsley

20-02-2023



Contents

C20 Demolition	1
D20 Excavating and filling	6



C20 Demolition

General requirements

110 Desk study/ survey

1. **Scope:** Before starting deconstruction/ demolition work, examine available information, and carry out a survey of: The structure or structures to be deconstructed/ demolished The site on which the structure or structures stand1.The surrounding area 2..Supplementary areas not covered by pre-contract survey3. The whole building4. The structure or structures to be deconstructed/ demolished. 5 Asbestos Surveys. 6. Connectivity Drainage Surveys ..
2. **Report and method statements:** Submit, describing: Demolition Method Statement and Sequencing
 - 2.1. Form, condition and details of the structure or structures, the site, and the surrounding area.
 - 2.1.1.Extent:
 - 2.2. Type, location and condition of features of historical, archaeological, geological or ecological importance.
 - 2.3. Type, location and condition of adjoining or surrounding premises that might be adversely affected by removal of the structure or structures, or by noise, vibration and dust generated during deconstruction or demolition.
 - 2.4. Identity and location of services above and below ground, including those required for the contractor's use, and arrangements for their disconnection and removal.
 - 2.5. Form and location of flammable, toxic or hazardous materials, including lead-based paint, and proposed methods for their removal and disposal.
 - 2.6. Form and location of materials identified for reuse or recycling, and proposed methods for removal and temporary storage.
 - 2.7. Proposed programme of work, including sequence and methods of deconstruction or demolition.
 - 2.8. Details of specific pre-weakening required.
 - 2.9. Arrangements for protection of personnel and the general public, including exclusion of unauthorized persons.
 - 2.10. Arrangements for control of site transport and traffic.
 - 2.11. Special requirements:
3. **Format of report:**

120 Extent of deconstruction/ demolition

1. **General:** Subject to retention requirements specified elsewhere, deconstruct/ demolish structures down to 2 metres below ground floor slab level.

130 Groundworks

1. **Old foundations, slabs and the like:** Break out in locations and to the extents stated above
2. **Contaminated material:** Report any contaminated materials within the ground to Tier Consult and seek instruction in managing and dealing with all materials arising
3. **Removal of deleterious material:** Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil
4. **Ancillary items:** Backfill basements and voids to level of surrounding site



140 Benchmarks

1. Unrecorded benchmarks and other survey information:

150 Features to be retained

1. General: Keep in place and protect the following: Boundary walls Gates and gate pillars Railings
Trees noted on drawings; protect in accordance with BS 5837.

Services affected by deconstruction and demolition

210 Services regulations

1. Work carried out to or affecting new and/ or existing services: Carry out in accordance with the by-laws and regulations of the relevant statutory authority

220 Location and marking of services

1. Services affected by deconstruction/ demolition work: Locate and mark positions Locate and mark positions
2. Mains services marking:
 - 2.1. Marking standard: In accordance with Street Works UK publication 'Guidance on the Positioning and Colour Coding of Underground Utilities' Apparatus'.

230 Services disconnection arranged by contractor

1. General: Arrange with the appropriate authorities and responsible private organizations for disconnection of services, and removal of fittings and equipment owned by those authorities prior to starting deconstruction or demolition

232 Services disconnection arranged by employer and contractor

1. Responsibility: The employer will arrange with the appropriate authorities and responsible private organizations for disconnection of services, and removal of fittings and equipment owned by those authorities prior to deconstruction or demolition, as follows:
2. Timing: Do not start deconstruction or demolition until disconnections are completed.

240 Disconnection of drains

1. General: Locate, disconnect and seal disused drain connections. Agree where drains are to be sealed
2. Sealing: Permanent, and within the site

250 Live foul and surface water drains

1. Drains and associated manholes, inspection chambers, gullies, vent pipes and fittings: Protect and maintain normal flow during deconstruction or demolition Leave clean and in working order at completion of deconstruction or demolition work
2. Other requirements: Post-completion camera survey to all external connections to ensure no blockages have occurred

260 Service bypass connections

1. General: Provide as necessary to maintain continuity of services to occupied areas of the site on which the deconstruction or demolition is taking place and to adjoining sites and properties
2. Minimum notice to adjoining owners and all affected occupiers: 72 hours, if shutdown is necessary during changeover



3. **Timing:** Complete bypass of services before demolition works start

270 Services to be retained

1. **Damage to services:** Give notice, and notify relevant service authorities and/ or owner/ occupier regarding damage arising from deconstruction or demolition
2. **Repairs to services:** Complete as directed, and to the satisfaction of the service authority or owner

Deconstruction and demolition work

310 Workmanship

1. **Standard:** Demolish structures in accordance with BS 6187.
2. **Operatives**
 - 2.1. Appropriately skilled and experienced for the type of work.
 - 2.2. Holding, or in training to obtain, relevant Construction Skills certification of competence.
3. **Site staff responsible for supervision and control of work:** Experienced in the assessment of risks involved and methods of deconstruction and demolition to be used.

320 Gas and vapour risks

1. **Precautions:** Prevent fire or explosion caused by gas and vapour from tanks, pipes, etc.

330 Dust control

1. **General:**
2. **Lead dust:** Submit method statement for control, containment and clean-up regimes.

340 Health hazards

1. **Precautions:** Protect site operatives and general public from hazards associated with vibration, dangerous fumes and dust arising during the course of the works.

350 Adjoining property

1. **Temporary support and protection:** Provide. Maintain and alter, as necessary as work proceeds. Do not leave unnecessary or unstable projections.
2. **Defects:** Report immediately on discovery.
3. **Damage:** Minimize disturbance. Repair promptly to ensure safety, stability, weather protection and security.
4. **Support to foundations:** Do not disturb.

360 Structures to be retained

1. **Extent:**
2. **Parts which are to be kept in place:** Protect. Give notice and notify service authority or owner of damage arising from the execution of the works.
3. **Interface between retained structures and deconstruction or demolition:** Cut away and strip out with care to minimize the amount of making good needed

370 Partly demolished structures

1. **General:** Leave in a stable condition, with adequate temporary support at each stage to prevent risk of uncontrolled collapse. Make secure outside working hours.
2. **Temporary works:** Prevent overloading due to debris.



3. Access: Prevent access by unauthorized persons.

380 Dangerous openings

1. General: Provide guarding at all times, including outside of working hours. Illuminate during hours of darkness.
2. Access: Prevent access by unauthorized persons.

390 Asbestos-containing materials – known occurrences

1. General: Materials containing asbestos are known to be present in: in various materials across the site.
2. Removal: By contractor licensed by the Health and Safety Executive, and prior to other works starting in these locations
3. Timing: Before other works start in these locations

391 Asbestos-containing materials – unknown occurrences

1. Discovery: Give notice immediately of suspected asbestos-containing materials when discovered during deconstruction and demolition work. Avoid disturbing such materials.
2. Removal: Submit statutory risk assessments and details of proposed methods for safe removal.

410 Unforeseen hazards

1. Discovery: Give notice immediately when hazards such as unrecorded voids, tanks, chemicals, are discovered during deconstruction or demolition.
2. Removal: Submit details of proposed methods for filling, removal, etc.

430 Filling of basements, etc

1. Temporary support: Leave adequate buttress walls or provide temporary support to basement retaining walls up to ground level
2. Safety: Make remaining sections of retaining and buttress walls safe and secure
3. Water movement: Make adequate holes in basement floors to allow water drainage or penetration (depending on water table)
4. Filling: Remove organic material and soil from basements and other voids. Fill and consolidate with

442 Site surface at completion

1. Topography: Grade the site to follow the levels of adjacent areas
2. Temporary surface: Cover the site with

450 Site condition at completion

1. Debris: Clear away and leave the site in a clean, tidy and secure condition.
2. Other requirements:

Materials arising

510 Contractor's property

1. Components and materials arising from the deconstruction and demolition work: Property of the contractor, except for designated items which remain the property of the employer
2. Action:



520 Recycled materials

1. **Materials arising from deconstruction and demolition work:** Can be recycled or reused elsewhere in the project, subject to compliance with the appropriate specification and in accordance with any site waste management plan.
2. **Evidence of compliance:** Submit full details and supporting documentation.
 - 2.1. **Verification:** Allow adequate time in programme for verification of compliance.

Ω End of Section



D20

Excavating and filling

Generally/the site

110 Site investigation

1. Report:

112 Site investigation report

1.

145 Variations in ground water level

1. Give notice: If levels encountered are significantly different from levels in the site investigation report or previously measured.

150 Existing services, features and structures

1. Services: See section A12 for locations.
2. Site features to be retained: See section A12 for details.
3. Structures: See section A34 for details of protection.

Clearance/excavating

164 Tree roots

1. Protected area: Do not cut roots within precautionary protection area.
 - 1.1. Size of area:
2. Excavation in protected area
 - 2.1. Method:
 - 2.2. Backfill as soon as possible or temporarily line with polyethylene sheet to reduce evaporation.
3. Outside protected area: Give notice of roots exceeding 25 mm and do not cut without approval.
4. Cutting
 - 4.1. Make clean smooth cuts with no ragged edges.
 - 4.2. Pare cut surfaces smooth with a sharp knife.
 - 4.3. Treatment of cut roots:
5. Backfill:

166 Tree root barriers

1. Trench: Sever all roots.
 - 1.1. Depth:
2. Root barrier:
3. Cutting roots: As clause 164.
4. Root barrier installation: Full depth of excavation. Fit closely to trench wall nearest the tree.
5. Backfill material: As dug material excavated from trench.
6. Backfilling: Lay and compact thoroughly in layers not more than 300 mm thick.



168 Site clearance

1. **Timing:** Before topsoil stripping, if any.
2. **General:** Clear site of rubbish, debris and vegetation. Do not compact topsoil.
3. **Treatment:**

170 Removing small trees, shrubs, hedges and roots

1. **Identification:** Clearly mark trees to be removed.
2. **Small trees, shrubs and hedges:** Cut down.
3. **Roots:** Grub up and dispose of without undue disturbance of soil and adjacent areas.
4. **Safety:** Comply with Forest Industry Safety Accord safety leaflets.

175 Felling large trees

1. **Definition:** Girth over 600 mm.
2. **Identification:** Clearly mark trees to be removed.
3. **Safety:** Comply with Forest Industry Safety Accord safety leaflets.
4. **Felling:** As close to the ground as possible.
5. **Stumps:**
6. **Work near retained trees:** Take down trees carefully in small sections to avoid damage to adjacent trees that are to be retained, where tree canopies overlap and in confined spaces generally.

180 Chipping and shredding

1. **General:**

220 Stripping topsoil

1. **General:** Before beginning general excavation or filling, strip topsoil from areas where there will be regrading, buildings, pavings/ roads and other areas shown on drawings.
2. **Depth**
 - 2.1. Remove to an average depth of
 - 2.2. Give notice where the depth of topsoil is difficult to determine.
3. **Handling:** Handle topsoil for reuse or sale in accordance with clause 225.
4. **Around trees:** Do not remove topsoil from below the spread of trees to be retained.
5. **Site storage:**

221 Treating topsoil

1. **Treatment:** Apply a suitable translocated nonresidual herbicide.
2. **Timing:** Not less than two weeks before excavating topsoil.

225 Handling topsoil

1. **Standard:** To BS 3882.
2. **Aggressive weeds**
 - 2.1. **Species:** Notify the presence of species included in the Weeds Act, section 2, or the appropriate Wildlife and Countryside Act for the relevant jurisdiction.
 - 2.2. **Give notice:** Obtain instructions before moving topsoil.
3. **Contamination:** Do not mix topsoil with:



- 3.1. Subsoil, stone, hardcore, rubbish or material from demolition work.
- 3.2. Other soil or material containing aggressive weeds, sharps, plastics and non soil forming materials and notifiable animal or plant diseases.
- 3.3. Oil, fuel, cement or other substances harmful to plant growth.
- 3.4. Other classifications of topsoil.
4. **Multiple handling:** Keep to a minimum. Use topsoil immediately after stripping.

240 Adjacent excavations

1. **Requirement:** Where an excavation encroaches below a line drawn at an angle from the nearest formation level of another higher excavation, the lower excavation, all work within it and backfilling thereto, must be completed before the higher excavation is made.
2. **Angle of line below horizontal:**
3. **Backfill material:**

242 Excavations adjacent to existing backfilled trenches

1. **Proximity:** When width of undisturbed ground between the two excavations will be less than
2. **Action:** Assume that the ground between the trenches is unstable and provide side support accordingly.

244 Excavations adjacent to existing foundations

1. **Prior to commencing excavation**
 - 1.1. Excavate trial pits adjacent to existing foundations to determine extent and formation levels.
 - 1.2. Allow for inspection of trial pits.
 - 1.3. Allow time for amendment of details if required.
 - 1.3.1. **Time period:**
2. **Backfill material to new excavation:**

245 Excavations adjacent to existing foundations – Contractor's design

1. **Prior to commencing excavation:** Excavate trial pits adjacent to existing foundations to determine extent and formation levels.
2. **Submit proposals:** For ensuring the safety of the existing foundations if the formation level for the new excavation will be
3. **Backfill material to new excavation:**

246 Excavations adjacent to pile supported structures

1. **Proximity:** When the formation level of an excavation will be lower than the pile cut off level and the distance between the near faces of the pile cap/ ground beam and the excavation is less than
 - 1.1. Complete all work within the excavation and backfilling before casting the pile cap/ ground beam, or
 - 1.2. Delay the adjacent excavation until

248 Backfill to excavations lower than foundation formation level

1. **Critical level**
 - 1.1. **Distance between near faces of foundation and lower excavation less than 1 m:**



- 1.2. Otherwise:
2. Backfill material
 - 2.1. Below critical level:
 - 2.2. Above critical level:

250 Permissible deviations from formation levels

1. Beneath mass concrete foundations: ± 25 mm.
2. Beneath ground bearing slabs and r.c. foundations: ± 15 mm.
3. Embankments and cuttings: ± 50 mm.
4. Ground abutting external walls: ± 50 mm, but such as to ensure that finished level is not less than 150 mm below dpc.

255 Accuracy – linear dimensions

1. Permissible deviations from linear dimensions generally:

260 Inspecting formations

1. Give notice: Make advance arrangements for inspection of formations for
 - 1.1. Notice (minimum):
2. Preparation: Just before inspection remove the last 150 mm of excavation. Trim to required profiles and levels.
 - 2.1. Loose material:
3. Seal: Within 4 hours of inspection, seal formations with

265 Inspecting formations in sand and gravel

1. Notice for inspection (minimum):
2. Preparation: Just before inspection remove the last 150 mm of excavation. Trim to required profiles and levels and mechanically compact formation.
3. Seal: Within 4 hours of inspection, seal formations with

267 Inspection of formations in shrinkable soils

1. Inspect formation: For signs of conducting and fine moisture absorbing roots.
2. Give notice: If significant quantities of roots are visible in the formation or in the bottom 75 mm of the walls of the excavation.

270 Foundations generally

1. Give notice if
 - 1.1. A natural bearing formation of undisturbed subsoil is not obtained at the depth shown on the drawings.
 - 1.2. The formation contains soft or hard spots or highly variable material.

275 Foundation bearing

1. Requirement: Foundations are designed to bear on:
 - 1.1. Strata:
 - 1.2. Safe bearing capacity (minimum):



2. **Give notice:** If the material at the design depth of the foundation does not comply with this description, or contains soft or hard spots or highly variable material.

280 Trench fill foundations

1. **Excavation:** Form trench down to formation in one operation.
2. **Safety:** Prepare formation from ground level.
3. **Inspection of formations:** Give notice before commencing excavation.
 - 3.1. **Period of notice:**
4. **Shoring:** Where inspection of formation is required, provide localised shoring to suit ground conditions.
5. **Concrete fill:** Place concrete immediately after inspection and no more than four hours after exposing the formation.

283 Formations for pile supported structures

1. **Excavate:** To the design formation level.
2. **Compact:** As necessary to ensure formation will support weight of concrete without settlement.
3. **Blinding to formation:**

285 Steps in foundation formations

1. **Depth of formation below ground level (minimum)**
 - 1.1. Existing ground level:
 - 1.2. Finished ground level:
2. **Step dimensions**
 - 2.1. Distance between steps (minimum):
 - 2.2. Height of step (maximum):
 - 2.3. Length of overlap (minimum):

290 Foundations in made up ground

1. **Depth:** Excavate down to a natural formation of undisturbed subsoil.
2. **Discrepancy:** Give notice if this is greater or less than depth given.

310 Unstable ground

1. **Generally:** Ensure that the excavation remains stable at all times.
2. **Give notice:** Without delay if any newly excavated faces are too unstable to allow earthwork support to be inserted.
3. **Take action:** If instability is likely to affect adjacent structures or roadways, take appropriate emergency action.

320 Recorded features

1. **Recorded foundations, beds, drains, manholes, etc.:**
2. **Contaminated earth:** Remove and disinfect as required by Local Authority.

330 Unrecorded features

1. **Give notice:** If unrecorded foundations, beds, voids, basements, filling, tanks, pipes, cables, drains, manholes, watercourses, ditches, etc. not shown on the drawings are encountered.

335 New foundations crossing old foundations or walls

1. **Break out:** The old foundation/ wall where it crosses the new foundation/ wall:
 - 1.1. Length of breaking out: Width of the new foundation/ wall plus
 - 1.2. Depth of breaking out:
2. **Disturbed/ softened soil:** When the formation for the old foundation/ wall is deeper than the formation of the new foundation.
 - 2.1. Excavate: Soil that has been disturbed and/ or softened on either side of the old wall/ foundation, and for
3. **Step up:** The formation for the new foundation as necessary on either side of the old foundation/ wall until the formation is at its design level.
 - 3.1. Size of steps:
4. **Backfilling** beneath design formation level:

337 Old foundations or walls beneath new ground supported slab

1. **Break out:** The old foundation/ wall to a depth below the slab formation level of at least
 - 1.1. **Excavate:** Soil that has softened on either side of the old wall/ foundation.
2. **Backfill:** Obtain instructions if depth of fill will be greater than 600 mm, otherwise backfill with compacted hardcore.

350 Existing watercourses

1. **Diverted watercourses which are to be filled:** Before filling, remove vegetable growths and soft deposits.

360 Excess excavation

1. Excavation taken wider than required
 - 1.1. Backfill:
2. Excavation taken deeper than required
 - 2.1. Backfill:

370 Underground structures in landscape areas

1. **Generally:** Remove walls, roads, foundations, disused services, drains, manholes and the like to minimum depth.
2. Minimum depth below finished levels
 - 2.1. Grass, ground cover and perennial planting:
 - 2.2. Shrub planting: 750 mm.
 - 2.3. Within 2 m of tree planting: 1000 mm.
3. Walls and slabs remaining: In every 10 m² of wall or slab, make a drainage hole at least 600 mm diameter.

Disposal of materials

410 Excavated topsoil storage

1. **Storage:** Stockpile in temporary storage heaps

415 Excavated topsoil removal

1. General: Remove from site.

420 Topsoil storage heaps

1. Location:
2. Standard: To BS 3882.
3. Height (maximum):
4. Protection
 - 4.1. Do not place any other material on top of storage heaps.
 - 4.2. Do not allow construction plant to pass over storage heaps.
 - 4.3. Prevent compaction and contamination.

421 Topsoil storage heap treatment

1. Treatment:

441 Surplus subsoil

1. Excavated material: Stockpile in temporary storage heaps.
2. Retained material: Spread and level surplus subsoil on site.
 - 2.1. Locations:
 - 2.2. Protected areas: Do not raise soil level within root spread of trees that are to be retained.
3. Remaining material: Remove from site.

450 Water

1. Generally: Keep all excavations free from water until:
 - 1.1. Formations are covered.
 - 1.2. Below ground constructions are completed.
 - 1.3. Basement structures and retaining walls are able to resist leakage, water pressure and flotation.
2. Drainage: Form surfaces of excavations and fill to provide adequate falls.
3. Removal of water: Provide temporary drains, sumps and pumping as necessary. Do not pollute watercourses with silt laden water.

454 Ground water level, springs or running water

1. Give notice: If it is considered that the excavations are below the water table.
2. Springs/ Running water: Give notice immediately if encountered.

457 Pumping

1. General: Do not disturb excavated faces or stability of adjacent ground or structures.
2. Pumped water: Discharge without flooding the site or adjoining property.
3. Sumps: Construct clear of excavations. Fill on completion.
 - 3.1. Locations:

460 Permanent drainage system

1. Disposal of water from the excavations through system: Select from list



Filling

500 Proposed fill materials

1. **Details:** Submit full details of proposed fill materials to demonstrate compliance with specification, including:
 - 1.1. Type and source of imported fill.
 - 1.2. Proposals for processing and reuse of material excavated on site.
 - 1.3. Test reports as required elsewhere.
2. **Timing:**

510 Hazardous, aggressive or unstable materials

1. **General:** Do not use fill materials which would, either in themselves or in combination with other materials or ground water, give rise to a health hazard, damage to building structures or instability in the filling, including material that is:
 - 1.1. Frozen or containing ice.
 - 1.2. Organic.
 - 1.3. Contaminated or noxious.
 - 1.4. Susceptible to spontaneous combustion.
 - 1.5. Likely to erode or decay and cause voids.
 - 1.6. With excessive moisture content, slurry, mud or from marshes or bogs.
 - 1.7. Clay of liquid limit exceeding 80 and/or plasticity index exceeding 55.
 - 1.8. Unacceptable, class U2 as defined in the 'Specification for highway works', clause 601.

512 Limitation of sulfate content in fill materials

1. Test specification: To
2. Sulfate content: Expressed as
 - 2.1. Water soluble sulfate (maximum):
 - 2.2. Total potential sulfate (maximum):
 - 2.3. Oxidizable sulfides (maximum):
3. Certificates of test result: Submit.

520 Frost susceptibility

1. **General:** Except as allowed below, fill must be non frost-susceptible as defined in the 'Specification for highway works', clause 801.8.
2. **Test reports:** If the following fill materials are proposed, submit a laboratory report confirming they are non frost- susceptible:
 - 2.1. Fine grained soil with a plasticity index less than 20%.
 - 2.2. Coarse grained soil or crushed granite with more than 10% retained on a 0.063 mm sieve.
 - 2.3. Crushed chalk.
 - 2.4. Crushed limestone fill with average saturation moisture content in excess of 3%.
 - 2.5. Burnt colliery shale.
3. **Frost-susceptible fill:** May only be used:
 - 3.1. At depths below the finished ground surface greater than:

- 3.2. Within the external walls of buildings below spaces that will be heated. Protect from frost during construction.
- 3.3. Where frost heave will not affect structural elements.

525 Testing of suitability of fill materials before start of filling

1. Laboratory:
2. Submit report to:
 - 2.1. Timing:
3. Samples: Deliver to laboratory as required.
 - 3.1. Additional requirements:
4. Tests:
5. Frequency:

530 Placing fill

1. **Surfaces of excavations and areas to be filled:** Free from loose soil, topsoil, organic material, rubbish and standing water.
2. **Freezing conditions:** Do not place fill on frozen surfaces. Remove material affected by frost. Replace and recompact if not damaged after thawing.
3. **Adjacent structures, membranes and buried services**
 - 3.1. Do not overload, destabilise or damage.
 - 3.2. Submit proposals for temporary support necessary to ensure stability during filling.
 - 3.3. Allow 14 days (minimum) before backfilling against in situ concrete structures.
4. **Layers:** Place so that only one type of material occurs in each layer.
5. **Earthmoving equipment:** Vary route to avoid rutting.

535 Compaction generally

1. **General:** Compact fill not specified to be left loose as soon as possible after placing.
2. **After compaction:** Surface of each layer must be well closed, showing no movement under compaction plant, and without cracks, holes, ridges, loose material and the like.
3. **Defective areas:** Remove and recompact to full thickness of layer using new material.

540 Benching in fill

1. **Adjacent areas:** If, during filling the difference in level between adjacent areas of filling exceeds 600 mm, cut into edge of higher filling to form benches 600 mm minimum width and height equivalent to depth of a layer of compacted filling.
2. **New filling:** Spread and compact to ensure maximum continuity with previous filling.

550 Geotextile sheet

1. Manufacturer:
 - 1.1. Product reference:
2. Type:
3. Polymer type:
4. Recycled content:
5. Jointing:
6. Preparation of subgrade:



7. Protect from
 - 7.1. Exposure to light.
 - 7.2. Contaminants.
 - 7.3. Materials listed as potentially deleterious by geotextile manufacturer.
 - 7.4. Wind uplift.

555 Geogrids

1. Manufacturer:
 - 1.1. Product reference:
2. Polymer type:
3. Recycled content:
4. Directional strength:
5. Tensile strength:
6. Grid geometry:
 - 6.1. Direction of grids:
7. Preparation of subgrade:
8. Fixing:
 - 8.1. Centres:
9. Jointing:

560 Geonets

1. Manufacturer:
 - 1.1. Product reference:
2. Recycled content:
3. Preparation of subgrade:
4. Fixing:
 - 4.1. Centres:
5. Jointing:

571 Geocells

1. Manufacturer:
 - 1.1. Product reference:
2. Materials:
3. Recycled content:
4. Size of cells (length x width x thickness):
5. Preparation of subgrade:
6. Fixing/ Connecting:
 - 6.1. Centres:

575 Buried erosion control geomats

1. Manufacturer:
 - 1.1. Product reference:
2. Type:



3. Recycled content:
4. Preparation of subgrade:
5. Fixing:
 - 5.1. Centres:

580 Buried erosion control biodegradable mesh

1. Manufacturer:
 - 1.1. Product reference:
2. Type:
3. Preparation of subgrade:
4. Fixing:
5. Fill:

585 Erosion control mattresses

1. Manufacturer:
 - 1.1. Product reference:
2. Size (length x width x height):
3. Preparation of subgrade:
4. Fixing/ Connecting:
5. Lining:
6. Fill:

590 Rock rolls

1. Manufacturer:
 - 1.1. Product reference:
2. Netting:
3. Filling:
4. Diameter:
5. Fixing:

595 Concrete impregnated fabric

1. Manufacturer:
 - 1.1. Product reference:
2. Thickness:
3. Installation: Apply water until the fabric is saturated. Allow fabric to cure fully before trafficking.

600 Coir

1. Description:
2. Manufacturer:
 - 2.1. Product reference:
3. Diameter:
4. Fixing:
5. Planting:

610 Compacted filling for landscape areas

1. **Fill:** Material capable of compaction by light earthmoving plant.
2. **Filling:** Layers not more than 200 mm thick. Lightly compact each layer to produce a stable soil structure.

615 Loose tip filling for landscape areas

1. **Filling:** Do not firm, consolidate or compact when laying. Tip and grade to approximate levels in one operation with minimum of trafficking by plant.

617 Type 1 unbound mixture

1. **Fill:** To 'Specification for highway works', clauses 801 and 803:
 - 1.1. Crushed rock (other than argillaceous rock).
 - 1.2. Coarse crushed concrete aggregate.
 - 1.3. Recycled aggregates.
 - 1.4. Crushed non-expansive slag to clause 801.2.
 - 1.5. Well-burned non-plastic colliery shale.
2. **Amendments to requirements in the 'Specification for highway works':**
3. **Filling:** To 'Specification for highway works', clause 802.

618 Type 2 unbound mixture

1. **Fill:** To 'Specification for highway works', clauses 801 and 804:
 - 1.1. Crushed rock (other than argillaceous rock).
 - 1.2. Coarse crushed concrete aggregate.
 - 1.3. Recycled aggregates.
 - 1.4. Crushed non-expansive slag to clause 801.2.
 - 1.5. Well-burned non-plastic colliery shale.
 - 1.6. Natural gravel.
 - 1.7. Natural sand.
2. **Amendments to requirements in the 'Specification for highway works':**
3. **Filling:** To 'Specification for highway works', clause 802.

620 Subgrade improvement layer (capping)

1. **Fill:** To 'Specification for highway works', Table 6/1, Class 6F1 or 6F2.
2. **oFilling:** Place and compact to MCHW Volume 1: 'Specification for highway works' (SHW), Table 6/1, clause 612 and clause 613.3, 613.9 and 613.10.

621 Type 3 unbound mixture

1. **Fill:** To 'Specification for highway works', clauses 801 and 805:
 - 1.1. Crushed rock (other than argillaceous rock) with well-defined edges.
 - 1.2. Coarse crushed concrete aggregate.
 - 1.3. Crushed non-expansive slag.
2. **Amendments to requirements in the 'Specification for highway works':**
3. **Filling:** To 'Specification for highway works', clause 802.

622 Type 4 unbound mixture

1. Fill: To 'Specification for highway works', clauses 801 and 807:
 - 1.1. Asphalt road planings.
 - 1.2. Granulated asphalt.
 - 1.3. Crushed rock (other than argillaceous rock) with well-defined edges.
 - 1.4. Coarse crushed concrete aggregate.
 - 1.5. Crushed non-expansive slag.
 - 1.6. Well-burned non-plastic colliery shale.
2. Amendments to requirements in the 'Specification for highway works':
3. Filling: To 'Specification for highway works', clause 802.

626 Compacted general fill

1. Suitable material:
2. Excavated material: Select suitable material and keep separate.
3. Filling: Spread and level material in layers. As soon as possible thoroughly compact each layer.
4. Required compaction:
5. Proposals: Well in advance of starting work submit details of proposed:
 - 5.1. Materials to be used, including quantities of each type.
 - 5.2. Type of plant.
 - 5.3. Maximum depth of each compacted layer.
 - 5.4. Minimum number of passes per layer.

640 Starter layer of compacted filling

1. Fill: Suitable hard granular material. Compact thoroughly.
2. Thickness:

650 Protection of compacted filling

1. Temporary protective filling: Before allowing construction traffic, raise level of compacted cohesive soil filling at least 150 mm above formation level using properly compacted temporary filling.
2. Removal: Remove temporary protective filling from site before permanent construction.

700 Backfilling around foundations

1. Under oversite concrete and pavings: Hardcore as clause 710.
2. Under grassed or soil areas: Material excavated from the trench, laid and compacted in 300 mm maximum layers.

710 Hardcore filling

1. Fill: Granular material, free from excessive dust, well graded, all pieces less than 75 mm in any direction:
 - 1.1. Test requirements
 - 1.1.1. Minimum 10% fines value tested in a soaked condition to BS 812-111
 - 1.1.2. Impact value SZ tested to BS EN 1097-2
2. Material
 - 2.1. Permitted materials in any one layer

- 2.1.1. Crushed rock (other than argillaceous rock) or quarry waste with not more binding material than is required to help hold the stone together.
 - 2.1.2. Crushed concrete, crushed brick or tile, free from plaster, timber and metal.
 - 2.1.3. Crushed non-expansive slag.
 - 2.1.4. Gravel or hoggins with not more clay content than is required to bind the material together, and with no large lumps of clay.
 - 2.1.5. Well-burned non-plastic colliery shale.
 - 2.1.6. Natural gravel.
 - 2.1.7. Natural sand.
3. **Filling:** Spread and level in 150 mm maximum layers. Thoroughly compact each layer.

715 Venting hardcore layer

- 1. **Fill:** Clean granular material, well graded, passing a 75 mm BS sieve but retained on a 20 mm BS sieve. In each layer only one of the following:
 - 1.1. Crushed hard rock.
 - 1.2. Crushed concrete, crushed brick or tile, free from plaster, timber and metal.
 - 1.3. Gravel.
- 2. **Filling:** Spread and level in 150 mm maximum layers. Thoroughly compact each layer whilst maintaining enough voids to allow efficient venting.

720 Expanded polystyrene blocks

- 1. **Manufacturer:**
 - 1.1. **Product reference:**
- 2. **Standard:** To BS EN 14933.
- 3. **Grade:**
- 4. **Dimensions:**
- 5. **Tolerances:**
 - 5.1. **Thickness:**
 - 5.2. **Width:**
 - 5.3. **Bow:**
- 6. **Recycled content:**
- 7. **Third party certification:** British Board of Agrément (BBA) Certificate.

730 Blinding

- 1. **Surfaces to receive sheet overlays or concrete:**
- 2. **Blind with**
 - 2.1. Concrete where shown on drawings; or
- 3. Sand, fine gravel, or other approved fine material applied to fill interstices. Moisten as necessary before final rolling to provide a flat, closed, smooth surface.
- 4. **Sand for blinding:** To BS EN 12620, grade 0/4 or 0/2 (MP).
- 5. **Permissible deviations on surface level:**

750 Compacted clay lining

- 1. **Description:**



2. Preparation of subgrade:
3. Lining:
 - 3.1. Supplier:
 - 3.1.1. Product reference:
 - 3.2. Thickness:
4. Protective layer:
 - 4.1. Thickness:

755 Installation of compacted clay lining

1. Bedding layer: Do not disturb.
2. Lining
 - 2.1. Freezing conditions: Do not place fill on frozen surfaces/ Remove material affected by frost.
 - 2.2. Wetting:
 - 2.3. Compaction:
 - 2.4. Joints:
 - 2.5. Damaged areas: Repair.
 - 2.6. Surface at completion: Smooth and even.
3. Covering/ Filling:

760 Installing polystyrene blocks

1. Levelling layer:
 - 1.1. Material: Fine aggregates for laying course.
 - 1.2. Thickness:
 - 1.3. Tolerance to thickness:
2. Compaction: Spread to required levels and thoroughly compact, leaving a uniform surface.
3. Installation: Lay with broken joints between layers, and no continuous vertical joints.
4. Reinforcement:

770 Geocomposite gas venting layer

1. Manufacturer:
 - 1.1. Product reference:
2. Jointing:

Bioremediation

810 Excavated soil treatment

1. Manufacturer:
 - 1.1. Product reference:
2. Nature of contamination:
3. Treatment:
 - 3.1. Location of treatment heaps:
4. Temporary features:



820 In situ soil treatment

1. Manufacturer:
 - 1.1. Product reference:
2. Nature of contamination:
3. Treatment:
 - 3.1. Location of treatment equipment:
4. Temporary features:

830 Soil vapour extraction

1. Manufacturer:
 - 1.1. Product reference:
 - 1.2. Location of treatment equipment:
2. Temporary features:

840 Pump and treat system

1. Manufacturer:
 - 1.1. Product reference:
2. Nature of contamination:
3. Location of treatment system:
4. Method for disposal of contaminants:
5. Temporary features:

'specification for highway works: earthworks specification' appendices

850 Compacted general filling/ earthworks

1. Specification: MCHW Volume 1: 'Specification for highway works' (SHW), Earthworks section, clauses
 - 1.1. Appendices (see clauses 900-970 in this section):
 - 1.2. Amendments to requirements in the 'Specification for highway works':
2. Definition: References to the 'Overseeing Organization' are deemed to be to the issuer of this specification.
3. Fill material
 - 3.1. Permitted classes/ source:
 - 3.2. Assessment of acceptability: Tests as Table 6/1 carried out by
 - 3.3. Preliminary tests:
4. Compaction: As Table 6/4.

900 Appendix 6/1 – Requirements for acceptability and testing, etc. of earthworks materials

1.

905 Appendix 6/2 – Requirements for dealing with class U1B and U2 unacceptable material

1.



**910 Appendix 6/3 – Requirements for excavation, deposition, compaction
(other than dynamic compaction)**

1.

915 Appendix 6/4 – Requirements for class 3 material

1.

920 Appendix 6/5 – Geotextiles used to separate earthworks materials

1.

925 Appendix 6/6 – Fill to structures and fill above structural foundations

1.

**930 Appendix 6/7 – Sub-formation and capping and preparation and surface
treatment of formation**

1.

935 Appendix 6/8 – Topsoiling

1.

**940 Appendix 6/9 – Earthwork environmental bunds, landscape areas,
strengthened embankments**

1.

945 Appendix 6/10 – Ground anchorages, crib walling and gabions

1.

**950 Appendix 6/11 – Swallow holes and other naturally occurring cavities and
disused mine workings**

1.

955 Appendix 6/12 – Instrumentation and monitoring

1.

960 Appendix 6/13 – Ground improvement

1.

965 Appendix 6/14 – Limiting values for pollution of controlled waters

1.

**970 Appendix 6/15 – Limiting values for harm to human health and the
environment**

1.

Ω End of Section



Specification created using NBS Chorus



APPENDIX B

EXTERNAL PHOTOGRAPHS



Northwest corner of the building where the building has been extended



West elevation showing arterial access route to car parking areas



Extensive car parking facility to west elevation constructed of brick pavers (looking north)



Extensive car parking facility to west elevation constructed of brick pavers (looking south)



West Elevation - Southerly building with first-floor office over



South elevation showing combination of upper profiled cladding over composite flat panel below



Access into the car park at northwest corner of the site



Northwest corner of the building where access for HGVs to the east elevation is apparent



Sprinkler tank building to the northern boundary



North Elevation illustrating herringbone lorry parking and at grade building access through industrial doors



Tarmac hardstanding / access road to north elevation



Northeast corner of the building showing profiled metal sheet cladding



North elevation - Access for re-roofing works over substation area



Fire Hydrant to East Elevation. Possible use for dust suppression during demolition



Inset surface level docking area to east elevation



Docking Area – Access road interface



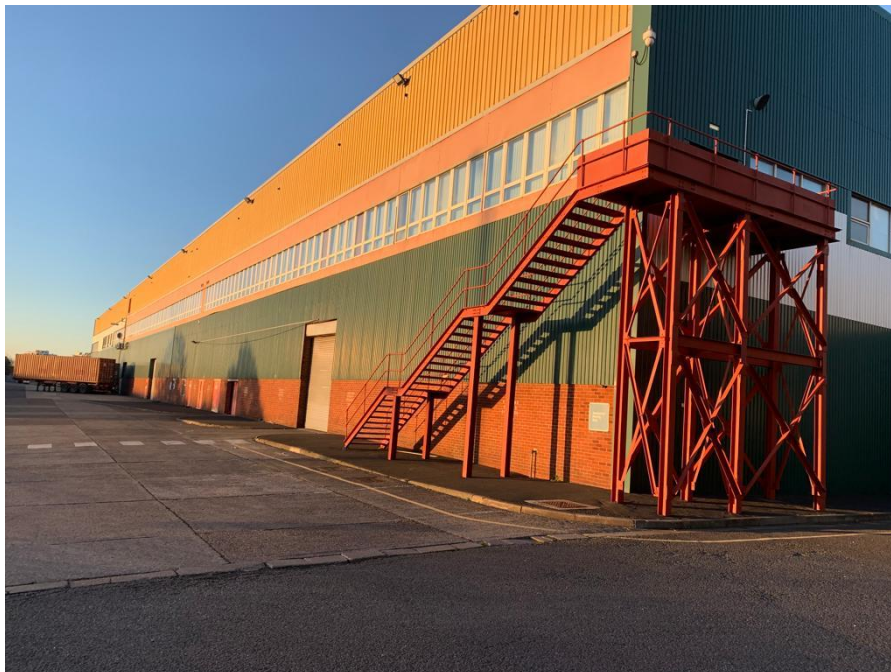
Elevation to docking area depicting roof profile and extent of profiled sheeting



East elevation looking south west



Southeast corner of the building showing fire escape stair to first floor offices



South elevation showing cavity brickwork up to door head level and fire escape stairs to office accommodation



Southwest corner of the building depicting variance in cladding as building has been upgraded



Southwest corner of the building showing car park egress arrangements and access to first floor offices through reception area

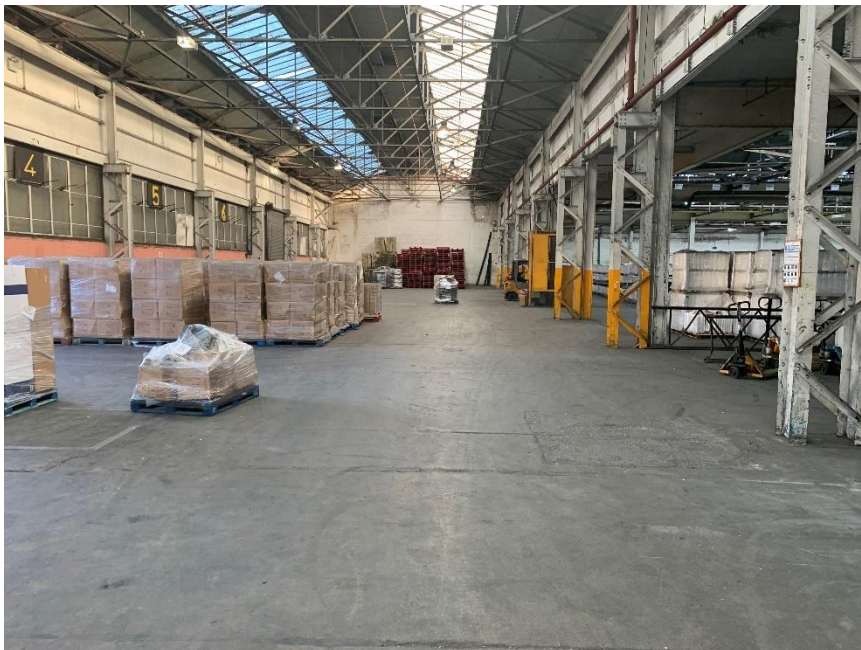


APPENDIX C

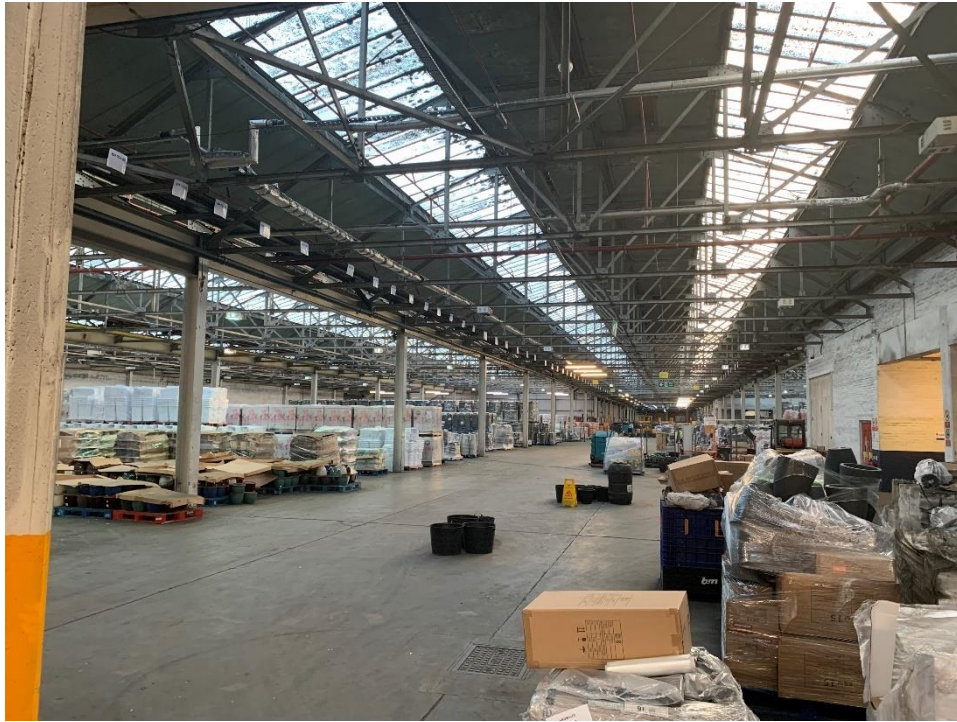
INTERNAL PHOTOGRAPHS



Northern end bay depicting laced columns to redundant crane frames



Internal column arrangement looking south



Internal bay centres depicting column arrangements and bulk storage



Laced columns to redundant crane rails



Bulk storage within the internal manufacturing



Internal west elevation fire wall

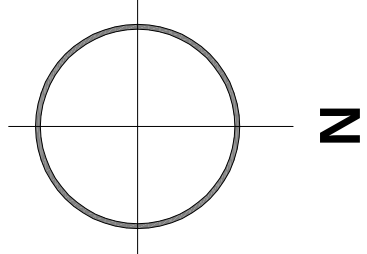


Internal office arrangement at first-floor level



APPENDIX D

TOPOGRAPHIC SURVEY



Notes :

This plan should only be used for its original purpose. SV Surveying Ltd accepts no responsibility for this plan if supplied to any other party other than the original client.

All dimensions / levels should be checked on site prior to design and construction.

Drainage information (where applicable) has been visually inspected from the surface and should be treated as approximate only.

Tree information (where applicable) has been surveyed from ground level and therefore should be treated as approximate only.

Contours are drawn at 0.2m intervals

The survey has been fixed to GPS OSGB 1936 using the active GPS network.

Legend:

Building Contour / Outcrops	78g	Top Pillar
Building / Walls	78g	Ridge Level
Keel line	78g	Edge Level
Drainage	78g	Dip Level
Contour line	78g	Spot Level
Boundary	78g	Scale Level
Boundary	78g	Control Box
Boundary	78g	Lamp Post
Boundary	78g	Sign Post
Boundary	78g	Flag Staff
Boundary	78g	Gas Meter
Boundary	78g	Electric Post
Boundary	78g	Power Line
Boundary	78g	Galley
Boundary	78g	Reading Point
Boundary	78g	Control Point
Boundary	78g	Electricity Cover
Boundary	78g	Fire Hydrant
Boundary	78g	Gas Cover
Boundary	78g	TV
Boundary	78g	Water Meter
Boundary	78g	Bus Stop
Boundary	78g	Lighting Pole
Boundary	78g	Post Box
Boundary	78g	Manhole
Boundary	78g	Gas Valve
Boundary	78g	Flag



LAND SURVEYS + COMPUTER MODELLING
BUILDING SURVEYS + SITE ENGINEERING
SV SURVEYING LTD
76B MARKET STREET
ASHBY-DE-LA-ZOUCH
LEICESTERSHIRE
LE65 1AP

Tel 01530 560837
Fax 01530 560123
Email: info@svsurveying.co.uk
www.svsurveying.co.uk

Project **TIER**

DEACON INDUSTRIALPARK

Drawing

**TOPOGRAPHIC
SITE SURVEY**

Scales **1:1000** Drawn/Paper Size **BS/A3/SFA:**

Survey Date **21/09/2022** Drawing No **22312-22-01**

DO NOT SCALE

(c) Copyright SV Surveying Ltd 2022.



APPENDIX E

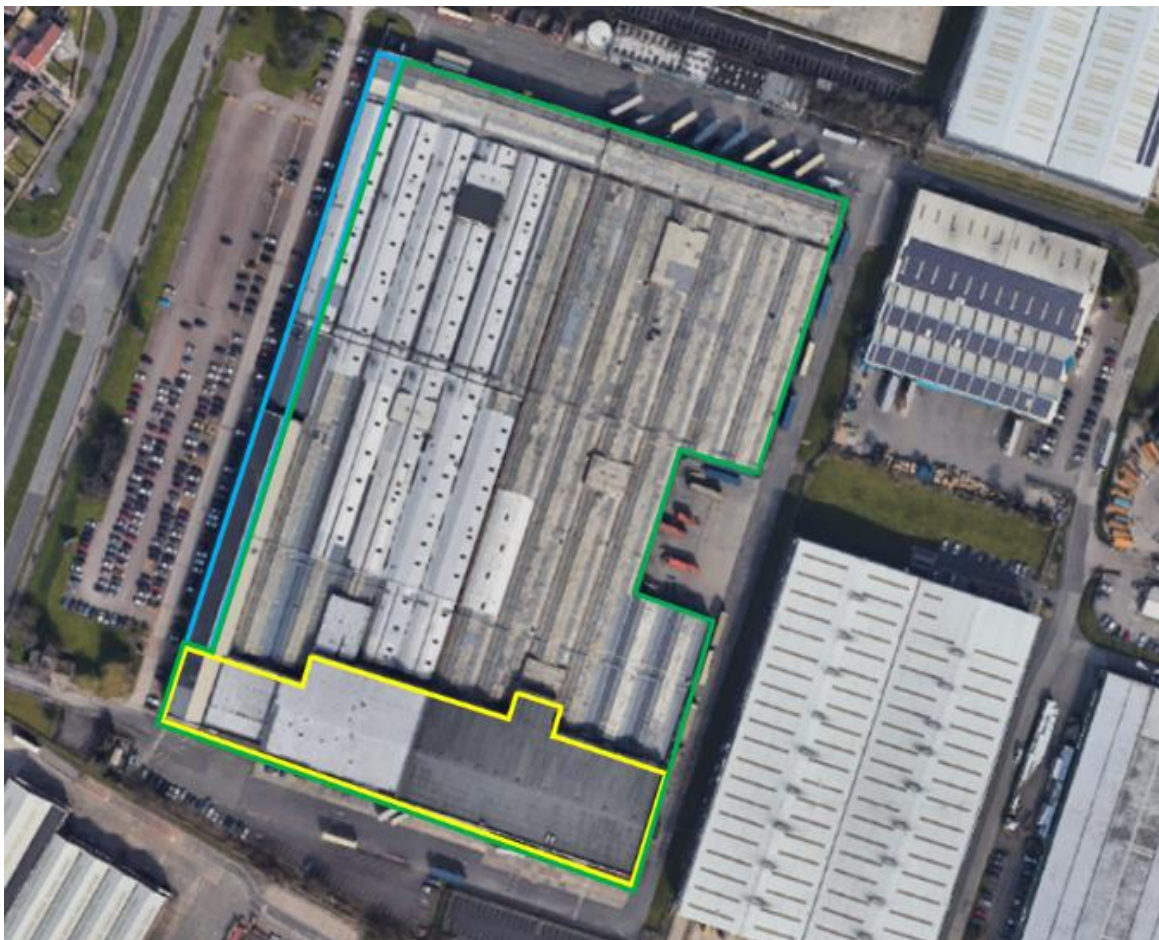
EXTENT OF BUILDING TO BE DEMOLISHED





APPENDIX F

EXTENT OF OFFICE AND MANUFACTURING AREAS



KEY

Ground Floor Office
Accommodation.

1st Floor Office
Accommodation.

Manufacturing
Areas