

RN: BO-JRLG-SM-SHE-FM-Z-0003 TN: BO-JRLG-BM-XX-FM-Z-0008 A1 C01	Page 1 of 3	Suitability: A1	Rev: C02
		Security: Internal	

Briefing for:

(record below main topics to be covered) - Briefing must be given before work starts.

[illegible]

Briefing	
Briefing register for:	

I/We the undersigned have been instructed and made aware of the contents of this Risk Assessment and agree to comply with its requirements. If we are unable to carry out the work safely we agree that we must immediately stop work and inform our manager/supervisor.

Date	Name	Position/Role	Signature	Briefing given by

WORK MUST NOT START UNTIL CONTROLS ARE IN PLACE AND THIS TOOL BOX TALK HAS BEEN CARRIED OUT AND ALL SIGNATURES OBTAINED

Form
Job Health & Safety Checklist SHE5

JRL Group Company: _____ Project Name: _____ Project No: _____							
Contract / Site Manager: _____				Activity Being Checked: _____			
Completed By: _____		Position: _____		Date: _____			
Frontline supervisors must complete this form at the following times: • Before work starts each day • Any change in work place • Any change to site conditions • For additional work requested							
Workplace	Yes	No	Action by whom and when	Task/Activity	Yes	No	By whom and when
1. Are there safe and stable ground and/or weather conditions, including for mobile plant / equipment?				6. Has the team received training or instruction for the work activities?			
2. Is there safe access to, around and from the site/work area for persons, vehicles and materials?				7. Have you got the right tools and sufficient equipment to complete the work safely?			
3. Are overhead / underground services identified, protected and safe work areas provided?				8. Are chemicals, oils, fuels and hazardous substances safely stored and used?			
4. Housekeeping – is the work area accessible, tidy and free from trip and fall hazards to avoid slips, trips and falls?				9. Are the PPE requirements (e.g. helmet, boots, hi-vis) for the job provided and worn?			
5. For works at height or near openings in ground, floor slabs etc., are secure covers or guard rails securely in place?				10. Are there arrangements for safe handling and mechanical lifting with properly trained personnel?			
Are you satisfied that the job is safe to start ?				Yes		No	
Signature: _____		Print name: _____		Time 1 st check: _____			
Signature: _____		Print name: _____		Time 2 nd check: _____			
Where there is a serious risk to health and safety, DO NOT start work until appropriate action has been taken to control the risks.							
Action required:				Action taken:			
Management confirmation of action taken							
Signature: _____		Print name: _____		Date: _____			

Form

Task Observation Checklist

Task observation checklist SHE 6A					
Company:	Choose an item.	Site name/location:	Click here to enter text.	Project Number: (if applicable)	Click here to enter text.
Date of visit:	Click here to enter a date.	Site Manager:		Click here to enter text.	
Report by:	Choose an item.	Site Supervisor:		Click here to enter text.	
Job Title:	Choose an item.	Task Being Monitored:		Click here to enter text.	

Monitoring Checks		Comment on each question including good practice or improvements required	Priority	Actions required by who and by when
1.	Is there a suitable job specific risk assessment (SHE3)/Safe System of Work (SHE4) produced and available?	Click here to enter text.	Choose an item.	Click here to enter text.
2.	Is the risk assessment (SHE3)/ Safe system of work up to date and relevant to the job being done?	Click here to enter text.	Choose an item.	Click here to enter text.
3.	Has the job specific risk assessment/safe system of work been discussed and signed off by members of the team?	Click here to enter text.	Choose an item.	Click here to enter text.
4.	Is the team trained and instructed in the work that they are doing?	Click here to enter text.	Choose an item.	Click here to enter text.
5.	Is team/individual working safely and in accordance with their risk assessment/safe system of work?	Click here to enter text.	Choose an item.	Click here to enter text.

Form

Task Observation Checklist

6.	Are 'Job Health and Safety Checklists' (SHE5) being completed and actioned by the team?	Click here to enter text.	Choose an item.	Click here to enter text.
7.	Is there safe access to and safe working arrangements in the work area?	Click here to enter text.	Choose an item.	Click here to enter text.
8.	Is the 'JRL Group' policy and standard' for PPE (glasses, gloves, boots, helmets & high viz) being followed? Is specialist/task related PPE required and is it being worn, e.g. hearing protection?	Click here to enter text.	Choose an item.	Click here to enter text.
9.	Are there adequate safe arrangements for lifting and moving materials to and around the work area?	Click here to enter text.	Choose an item.	Click here to enter text.
10.	Are all environmental requirements being fulfilled e.g. correct storage, use of plant nappies, concrete wash out bins etc.?	Click here to enter text.	Choose an item.	Click here to enter text.
11.	Does the site team have any health and safety issues and what has been done to address these issues?	Click here to enter text.	Choose an item.	Click here to enter text.
Overall Assessment / Comment:		Click here to enter text.		
Signature (H&S Advisor):			Date:	
Distribute to:		Business Director (s), Contract Managers, Site/Project Manager, Group Safety Manager, H&S Admin Coordinator		
I confirm that the above observations and recommendations have been addressed as noted in 'action taken' column above				
Name (Project Manager/Supervisor)			Signature:	
Position:			Date:	

Form
Office Observation Checklist

Office observation checklist SHE 6B					
Company:	Choose an item.	Site name/location:	Click here to enter text.	Project Number: (if applicable)	Click here to enter text.
Date of visit:	Click here to enter a date.	Site Manager:		Click here to enter text.	
Report by:	Choose an item.	Site Supervisor:		Click here to enter text.	
Job Title:	Choose an item.	Activity Being Monitored:		Click here to enter text.	

Monitoring Checks		Comment on each question including good practice or improvements required	Priority	Actions required by who and by when
1.	Risk assessments and safe systems of work: Are risk assessments (SHE3/RAGs) and safe systems of work (SHE4) in place for all activities on site? Have they been communicated to all the relevant workers? Are they up to date and relevant to the job being done? Is daily SHE 5 'Job Health and Safety Checklists' being carried out and recorded?	Click here to enter text.	Choose an item.	Click here to enter text.
2.	Safety signs: Are these suitable and in good condition? Are they visible, unobstructed?	Click here to enter text.	Choose an item.	Click here to enter text.
3.	Fire: Has the fire log been completed? Are fire exit routes and final exits signed? Are fire exits clear of obstructions? Do all fire doors operate correctly?	Click here to enter text.	Choose an item.	Click here to enter text.

Form
Office Observation Checklist

	Are there sufficient fire extinguishers correctly positioned and unobstructed? Are extinguishers on stands or fixed to walls and are they in date?			
4.	Condition of the building: Is the building weatherproof? Is the heating system working and has it been maintained? Where supplied, is the air conditioning working and has it been maintained?	Click here to enter text.	Choose an item.	Click here to enter text.
5.	Floors and Access: Are floors in good condition and free of trip hazards? Are escape/access routes free of obstructions? Are access control systems working?	Click here to enter text.	Choose an item.	Click here to enter text.
6.	Electricity: Has the building's electrical system been inspected in the last five years? Is all portable electrical been PAT tested? Are electrical panels and cupboards secured?	Click here to enter text.	Choose an item.	Click here to enter text.
7.	First aid: Are there adequate first aid supplies? Is there adequate signage regarding first aid?	Click here to enter text.	Choose an item.	Click here to enter text.
8.	Welfare: Are toilet facilities in good condition and clean? Are rest rooms well maintained and clean? Is there evidence of good housekeeping and is rubbish removed? Are recycling facilities available and are these marked?	Click here to enter text.	Choose an item.	Click here to enter text.

Form
Office Observation Checklist

9.	Traffic management: Are pedestrian walkways clearly marked and are vehicles (where possible) segregated from pedestrians?	Click here to enter text.	Choose an item.	Click here to enter text.
10.	IT: Are all trailing cables securely tied? Are all computer screens in good condition – free from flickering? Has any unwanted/abandoned IT kit been removed?	Click here to enter text.	Choose an item.	Click here to enter text.
11.	Other:	Click here to enter text.	Choose an item.	Click here to enter text.
Overall Assessment / Comment:		Click here to enter text.		
Signature (H&S Advisor):			Date:	
Distribute to:		Business Director (s), Contract Managers, Site/Project Manager, Group Safety Manager, H&S Admin Coordinator		
I confirm that the above observations and recommendations have been addressed as noted in 'action taken' column above				
Name (Project Manager/Supervisor)			Signature:	
Position:			Date:	

Form
Site Observation Checklist

Site observation checklist SHE 6B					
Company:	Choose an item.	Site name/location:	Click here to enter text.	Project Number: (if applicable)	Click here to enter text.
Date of visit:	Click here to enter a date.	Site Manager:		Click here to enter text.	
Report by:	Choose an item.	Site Supervisor:		Click here to enter text.	
Job Title:	Choose an item.	Activity Being Monitored:		Click here to enter text.	

Monitoring Checks		Comment on each question including good practice or improvements required	Priority	Actions required by who and by when
1.	Risk assessments and safe systems of work: Are risk assessments (SHE3/RAGs) and safe systems of work (SHE4) in place for all activities on site? Have they been communicated to all the relevant workers? Are they up to date and relevant to the job being done? Is daily SHE 5 'Job Health and Safety Checklists' being carried out and recorded?	Click here to enter text.	Choose an item.	Click here to enter text.
2.	Working at height Is work at height risk assessed and controlled? Is all voids, holes and openings properly protected? Is work at height being carried out safely? Are specified protective measures in place (guardrails, working platforms, fall restraint)?	Click here to enter text.	Choose an item.	Click here to enter text.

Form
Site Observation Checklist

3.	Access and egress Is there safe access for site staff and visitors into and around the site? Are walkways clearly defined around the site (e.g. Yellow Mat etc.)? Are there clearly marked traffic routes, delivery and loading areas? Can pedestrians safely access all parts of the site?	Click here to enter text.	Choose an item.	Click here to enter text.
4.	Housekeeping and work environment: Is access to, in and around work areas safe? Is the site/work generally tidy and clean? Are arrangements made for safe storage and removal of waste, e.g. off-cuts/packaging?	Click here to enter text.	Choose an item.	Click here to enter text.
5.	Working platforms/edge protection/ podiums/ mobile platforms & towers: Are all working platforms etc. properly installed and in safe condition? Are guardrails & toe boards secure and the correct height (1m to top rail)? Is all work at height equipment regularly inspected and signed off?	Click here to enter text.	Choose an item.	Click here to enter text.
6.	Lighting: Is general and task lighting sufficient for the work/ task being carried out?	Click here to enter text.	Choose an item.	Click here to enter text.
7.	Mobile plant and vehicles: Is there a suitable risk assessment, including a traffic management plan, in place on site in particular avoiding reversing if possible?	Click here to enter text.	Choose an item.	Click here to enter text.

Form
Site Observation Checklist

	Is it being implemented? Is the JRL safe control of mobile plant and vehicles on site initiative in place (poster)? Have plant and vehicle inspections been carried out? Are all operators/drivers trained to use the plant/vehicles they are driving/using?			
8.	Lifting operations Is the site lift plan available, up to date and being followed? Is all lifting equipment tested and tagged? Are all personnel involved in lifting properly trained? Is weekly inspection reports being completed and available for lifting equipment and accessories?	Click here to enter text.	Choose an item.	Click here to enter text.
9.	Temporary works (TW) Have temporary works appointments been made? Has an engineer design brief been produced and issued? Is temporary works register up to date? Are temporary works regularly inspected and reports completed?	Click here to enter text.	Choose an item.	Click here to enter text.
10.	Fire and emergency arrangements: Is there a suitable fire risk assessment which is being followed and is up to date? Are fire procedures and emergency routes & exits clearly displayed throughout the site? Is the JRL hot works permit system in place and being implemented? Are fire extinguishers properly located and serviceable?	Click here to enter text.	Choose an item.	Click here to enter text.

Form
Site Observation Checklist

11.	Electrical safety The site should only be using low voltage (110 volt) or battery operated tools. If not specify what action is required? Is all fixed and portable electrical equipment safe and properly maintained? Are regular inspections of electrical equipment carried out?	Click here to enter text.	Choose an item.	Click here to enter text.
12.	Gas bottle storage and use Are compressed gasses not in use being securely and safely stored (in a gas cage) with oxygen stored separately from flammable gasses (at least 6m away from buildings and/or combustibles)? Are compressed gasses in use properly supported in trollies?			
13.	Storage and use of fuel and lubricants. Is fuel stored safely and correctly? Does refueling take place over drip tray or plant nappy? Are spill kits fully stocked and easily available? Are suitable fire precautions in place?			
14.	Occupational health and welfare Are adequate and suitable welfare facilities provided for the site? Is noise levels adequately controlled or is hearing protection in use in noisy areas above 80db? Are dust extractors fitted on power tools used for working on wood or concrete? Are there adequate arrangements (where necessary) to suppress general dust levels in the air e.g. damping down etc.?			

Form
Site Observation Checklist

	Has an assessment been made of 'Hand Arm Vibration' (HAVs) hazards from use of breakers and other percussion equipment?			
15.	PPE Is the 'JRL Group' policy and standard' for PPE (glasses, gloves, boots, helmets & high viz) being followed? Is specialist/task related PPE required and is it being worn, e.g. hearing protection?			
16.	Work equipment, machinery and hand tools Are tools, machinery and equipment in good condition? Is there arrangements to tether hand tools where required for work at height? Is equipment inspected regularly as required and recorded?			
Overall Assessment / Comment:		Click here to enter text.		
Signature (H&S Advisor):			Date:	
Distribute to:		Business Director (s), Contract Managers, Site/Project Manager, Group Safety Manager, H&S Admin Coordinator		
I confirm that the above observations and recommendations have been addressed as noted in 'action taken' column above				
Name (Project Manager/Supervisor)			Signature:	
Position:			Date:	

Senior Manager/Director Site Visit Report SHE 7			
Location:			Date:
Name of Senior Manager/Director:		Name of Site Manager:	
Questions listed below are intended to prompt discussion of the relevant topic and generate responses on how well each aspect of health and safety is managed (refer to the guidance notes on the back of this form for further information).			
1. Planning and Implementation: Evidence that the management of health and safety on site meets the requirements of the health and safety management system. See guidance note.			
Comments / action / name / timescale:			
2. Staff engagement and training: Staff on site demonstrates an awareness of their health and safety responsibilities and are receiving the appropriate briefings and training. See guidance note.			
Comments / action / name / timescale:			
3. Monitoring: SHE6 monitoring forms are in use and properly completed with both positive observation and also actions required. See guidance Note.			
Comments / action / name / timescale:			

4. General site condition: Physical aspects of health and safety being well maintained and managed. See guidance note.

Comments / action / name / timescale:

5. Management of Other Contractors: Other contractors on site are being managed safely. See guidance note.

Comments / action / name / timescale:

6. Summary: Include any continuous improvement opportunities.

Comments / action / name / timescale:

Signature or Senior Manager/Director:

Senior manager's/executive site visit report SHE 7 "Guidance Notes"

The guidance notes below are intended to assist you in highlighting and recording evidence that the key activities falling out of the question sets demonstrate the requirements of the Health and Safety Management System are effective.

1. **Planning and Implementation:** What evidence have you seen that demonstrates that the management of health and safety on site meet the requirements of the health and safety management system? More specifically, what hazards have been identified? What corresponding risk assessments have been prepared? What safe systems of work (SHE4) have been prepared? Are these in place and up to date? Have these been investigated and if so what lessons have been implemented? Is health and safety including in management meetings?
2. **Staff engagement and training:** In your discussions with staff on site do they demonstrate an awareness of their health and safety responsibilities and are they receiving the appropriate briefings and training? What inductions have been carried out and are they suitable and sufficient? What risks assessment briefings have been given and are these appropriate? What daily safety briefings are being carried out and are they suitable and sufficient? What plant and equipment training has been provided and is this relevant to the risks? What toolbox talks have been delivered?
3. **Monitoring:** What evidence have you seen (including discussions with site management and records) to indicate monitoring activities are being carried out in line with the health and safety management system? Which of the SHE 6 series of documents are being used and are actions recorded and tracked to conclusion? Is health and safety included in management meetings? Are actions recorded and tracked to conclusion?
4. **General site condition:** Regarding your observations around the site, are the physical aspects of health and safety being well maintained and managed? Consider access, egress and walkways. Consider lighting and whether this is adequate? What traffic management arrangements are in place and are these adequate? Are working platforms properly protected? What are the house keeping arrangements and is the site generally tidy? What security arrangements are in place and are hoardings and gates secure? Are Exclusion Zones in the correct places? What warning signs are posted on hoardings and gates and are these correct? Is work at height undertaken safely (consider the type of work and the equipment being used)? What confined spaces are present and are arrangements suitable for dealing with them? What welfare facilities and first aid facilities have been provided and are these adequate? What are the arrangements for maintaining electrical safety and are these adequate? Is plant and equipment being inspected and maintained; what records are available? Is moving machinery effectively guarded?
5. **Management of Other Contractors:** Where there are other contractors on site who are not part of the JRL Group, are they being managed safely? Where necessary have permits to work been issued? What evidence is there to show that local management are conducting monitoring activities and are actions recorded and tracked to conclusion? Are the contractors working safely?
6. **Summary:** Overall how effective is the management of health and safety? Are there any opportunities for improvement? Equally are there opportunities to share best practice across other sites?

Form
Senior Manager/Director Site Visit Report SHE 7



Form
Site / Depot Monthly Health and Safety Meeting Agenda

Site / Depot Monthly Health and Safety Meeting Agenda SHE9A					
Company:		Site/ Depot:		Project No. (If applicable):	
Chaired By:		Date:		Time:	
List of Attendees:			Job Titles		
Agenda					
No.	Topic	Main Decisions, Actions Agreed, By Whom and When			
1.	Apologies for absence.				
2.	Minutes of the previous meeting and matters arising.				
3.	Accidents / Incidents reviews Accidents / Incidents at Site Depot Accidents / Incidents in the General Business				
4.	Safety Alerts and Briefing Notes Issued – Actions Taken				
5.	Current Site / Depot Risk assessments. – Review new or changed activities and ensure risk assessment complete.				
6.	Health and safety inspection reports from HS&E Team				
7.	Health and safety training Requirements				
8.	Current Health and Safety Initiatives.				
9.	Any other business.				
10.	Date of Next Meeting / Time / Venue				

In all cases adequate records of the meeting should be kept by completing this form.

Form
Monthly Health & Safety Meeting Agenda SHE9B

General Division / Business Monthly Health and Safety Meeting Agenda					
Company:		Site/ Depot:		Project No. (If applicable):	
Chaired By:		Date:		Time:	
List of Attendees:			Job Titles		
Agenda					
No.	Topic		Main Decisions, Actions Agreed By Whom and When		
1.	Apologies for Absence.				
2.	Minutes of the previous meeting and matters arising.				
3.	Accidents / Incidents Reviews - Accidents / Incidents at Individual Sites / Depots - Accidents / Incidents in the Group				
4.	Safety Alerts and Briefing Notes Issued – Actions Taken				
5.	Risk Assessment Process in Business – Effectiveness and Improvements Required				
6.	Health and Safety Inspection Reports from HS&E Team				
7.	Health and Safety Training Requirements in the Business				
8.	Current Business and Group Initiatives.				
9.	Any Other Business.				
10.	Date of Next Meeting / Time / Venue				

In all cases adequate records of the meeting should be kept by completing this form.

Form
Work Safety Survey Checklist SHE 1

Work safety survey checklist SHE 1				
Survey for (site or location name/address):				
Date:		Survey conducted by (Name and Position):		
Site manager:		Other JRL Group divisions working on site:		
Activity/ Hazard	Type of work – are there any tasks which involve:	Task name/ description	Relevant Health and Safety Guidance (HSGs) / Key H&S procedures HSPs	
1. Site Set-up, access and emergency arrangements	Safe access to site	Yes		
		No		
	Safe access around site perimeter	Yes		
		No		
	Public protection – Site fencing/hoarding, gates, walkways	Yes		
		No		
	Site welfare – rest rooms canteens, drying rooms, toilets	Yes		
		No		
	General site safety notices/instructions	Yes		
		No		

Form
Work Safety Survey Checklist SHE 1

Activity/ Hazard	Type of work – are there any tasks which involve:		Task name/ description	Relevant Health and Safety Guidance (HSGs) / Key H&S procedures HSPs
	Permits to work – hot work, safe digging and confined spaces	Yes		
		No		
	Emergency arrangements – assembly points, means of escape, fire points, first aid	Yes		
		No		
2. Mobile plant and equipment	Using/operating mobile plant?	Yes		
		No		
	Are pedestrians being exposed to mobile plant or other vehicles?	Yes		
		No		
3. Working at height	Edge protection	Yes		
		No		
	Using ladders?	Yes		
		No		
	Using fixed scaffolding?	Yes		
		No		

Form
Work Safety Survey Checklist SHE 1

Activity/ Hazard	Type of work – are there any tasks which involve:	Task name/ description	Relevant Health and Safety Guidance (HSGs) / Key H&S procedures HSPs	
	Using mobile scaffolding?	Yes		
		No		
	Roof-work	Yes		
		No		
	Working on lorries, trailers etc.?	Yes		
		No		
	Using mobile elevated work platforms?	Yes		
		No		
	Working over voids/chambers?	Yes		
		No		
	4. Operating Fixed machinery	Operating fixed machinery and plant	Yes	
			No	
Maintaining fixed machinery and plant		Yes		
		No		

Form
Work Safety Survey Checklist SHE 1

Activity/ Hazard	Type of work – are there any tasks which involve:		Task name/ description	Relevant Health and Safety Guidance (HSGs) / Key H&S procedures HSPs
	Operating vibrating machinery?	Yes		
		No		
5. Portable Machinery, equipment and power tools	Using portable machinery and equipment?	Yes		
		No		
	Using portable power tools?	Yes		
		No		
	Operating portable vibrating machinery?	Yes		
		No		
	Entry into confined spaces?	Yes		
		No		
6. Confined spaces				
7. Water	Working at or near water?	Yes		
		No		
8. Mechanical lifting	Use of mobile cranes or work in areas close to them?	Yes		
		No		
	Use of fixed cranes or work in areas close to them?	Yes		
		No		

Form
Work Safety Survey Checklist SHE 1

Activity/ Hazard	Type of work – are there any tasks which involve:		Task name/ description	Relevant Health and Safety Guidance (HSGs) / Key H&S procedures HSPs
9. Electricity	Operating electrical plant and equipment?	Yes		
		No		
	Maintaining electrical plant and equipment?	Yes		
		No		
	Working near overhead cables?	Yes		
		No		
	Excavating where there may be a risk of underground cables?	Yes		
		No		
10. Fire and explosion hazards	Working with or near flammable liquids?	Yes		
		No		
	Working with or near areas with flammable gases?	Yes		
		No		
	Excavating where there may be a risk of underground gas pipes?	Yes		
		No		

Form
Work Safety Survey Checklist SHE 1

Activity/ Hazard	Type of work – are there any tasks which involve:		Task name/ description	Relevant Health and Safety Guidance (HSGs) / Key H&S procedures HSPs
11. Hazardous substances/ chemicals	Delivery & storage of chemicals (toxic, corrosive, harmful, explosive)?	Yes		
		No		
	Operations which might result in exposure to harmful substances/ chemicals	Yes		
		No		
	Using solvent or adhesives	Yes		
		No		
	Maintaining plant which has contained toxic, corrosive or Harmful substances?	Yes		
		No		
12. Radiation	Use of radiation sources e.g. non-destructive testing?	Yes		
		No		
13. Excavations	Work near excavations?	Yes		
		No		
	Work in excavations?	Yes		
		No		

Form
Work Safety Survey Checklist SHE 1

Activity/ Hazard	Type of work – are there any tasks which involve:		Task name/ description	Relevant Health and Safety Guidance (HSGs) / Key H&S procedures HSPs
14. Manual handling	Activities involving lifting by hand?	Yes		
		No		
	Lifting or moving hazardous substances?	Yes		
		No		
	Loading equipment into vehicles?	Yes		
		No		
15. Other hazards	Potential exposure to excessive levels of noise & vibration?	Yes		
		No		
	Potential exposure to biological hazards, e.g. vermin / sewers?	Yes		
		No		
	Asbestos	Yes		
		No		
	Congested areas/ trip hazards?	Yes		
		No		

Form
Work Safety Survey Checklist SHE 1

Activity/ Hazard	Type of work – are there any tasks which involve:	Task name/ description	Relevant Health and Safety Guidance (HSGs) / Key H&S procedures HSPs
	Low lighting levels?	Yes	
		No	
	Adverse weather conditions?	Yes	
		No	
16. Temporary Works	Are there temporary works involved on site?	Yes	
		No	
17. Display Screen Equipment (DSE)	Working with DSE?	Yes	
		No	
18. Lone working	Are persons working alone?	Yes	
		No	

Key Health and Safety Procedures and Health and Safety Information Sheets	
Ref No.	Title
BO-JRLG-SM-HSP-FM-Z-0001	Managing Construction Projects – Duties Under the CDM Regulations
BO-JRLG-SM-HSP-FM-Z-0002	Temporary Accommodation and Welfare on Site
BO-JRLG-SM-HSP-FM-Z-0003	Work at Height
BO-JRLG-SM-HSP-FM-Z-0004	Selection of Safe Work Equipment
BO-JRLG-SM-HSP-FM-Z-0005	Confined Spaces – Excluding Live Services and Utilities
BO-JRLG-SM-HSP-FM-Z-0006	Traffic Management Procedure
BO-JRLG-SM-HSP-FM-Z-0007	Controlling Mobile Plant on Site
BO-JRLG-SM-HSP-FM-Z-0008	Asbestos Products – Procedure for Unexpected Discovery
BO-JRLG-SM-HSP-FM-Z-0009	Noise and Vibration Procedure
BO-JRLG-SM-HSP-FM-Z-0010	Lone Working JRL
BO-JRLG-SM-HSP-FM-Z-0011	Permits to Work
BO-JRLG-SM-HSP-FM-Z-0012	Safe Use of Harnesses and Inertia Reels
BO-JRLG-SM-HSP-FM-Z-0013	Carriage by Road of Small Quantities of Dangerous Goods
BO-JRLG-SM-HSP-FM-Z-0014	Statutory Inspections of Plant and Equipment
BO-JRLG-SM-HSP-FM-Z-0015	Accident and Incident Reporting and Investigation
BO-JRLG-SM-HSP-FM-Z-0016	Management of Change Procedure
BO-JRLG-SM-HSP-FM-Z-0017	Oil & Pollution Control
BO-JRLG-SM-HSP-FM-Z-0018	Site Waste Management
BO-JRLG-SM-HSP-FM-Z-0019	Managing Contaminated Ground
BO-JRLG-SM-HSP-FM-Z-0020	Health, Safety and Environmental Training
BO-JRLG-SM-HSP-FM-Z-0021	First Aid Arrangements
BO-JRLG-SM-HSP-FM-Z-0022	Selection, Use and Control of Personal Protective Equipment (PPE)
BO-JRLG-SM-HSP-FM-Z-0023	Safe Lifting Operations Using Tower Cranes and Mobile Cranes
BO-JRLG-SM-HSP-FM-Z-0024	Procedure for Safe Erection of Tower Cranes
BO-JRLG-SM-HSP-FM-Z-0025	Tower Crane Rescue Procedure
BO-JRLG-SM-HSP-FM-Z-0026	Site Rescue Procedure
BO-JRLG-SM-HSP-FM-Z-0027	Hot Weather and Hot Environment Working

Form Safe System of Work Form

Safe System of Work Form			
To be completed when tasks involve multiple or complex activities that are not covered in their entirety by risk assessments and/or key procedures.			
Note: This form is only valid when sections K and L are completed and signed by the manager responsible and all personnel involved.			
Site/project name:		Project no.:	
Address:			
Area/location:			
Company:			
SSOW No.		Title:	
Name of Project Manager:			
Name of Responsible Manager/Supervisor: (Sign and date Section K)			
Prepared by:		Date:	
Revision:		Revised by:	
		Revision Date:	
A: Brief description of work to be undertaken			
Summary of Work:			
Work location:			
Start date:		Duration:	
B: Work Equipment, Procedures and Competences required for Health and Safety			
Note: Include all equipment needed for a safe work environment. Do not include PPE – see section H.			
Work Equipment (including mobile/fixed plant, safety equipment and tools):			
Materials required:			
Safety Documents (including temporary works designs, statutory safety and site inspection forms):			

[illegible]

D: Key health and safety procedures (HSP) required (see SHE2 for guidance) and associated documentation

Note: Each relevant HSP to be briefed to the site team

E: Relevant risk assessment guidelines (RAG) (see section 3 of the manual and JRL HSE Website for list of risk assessment guidelines)

Note: Each relevant RAG to be in place, associated toolbox talk completed and section L of this form completed.

F: Additional resources, specialised skills & competencies

Note: This may include other specialist trades/skills, in-house or external

G: Details of work permits or authorisations required (tick ✓ and attach permits or other forms are required for the work activity)

Permit to work (<i>general</i>)		Permit to work (<i>excavate</i>)		Permit to work (<i>hot work</i>)		Permit to work (<i>confined spaces</i>)	
Permit to work (<i>electrical</i>)		Permit to work (<i>working platform certificate</i>)		Permit to work (<i>mobile crane authorisation</i>)		Permit to work (<i>other</i>)	

If Other, please describe:

H: Personal protective equipment required

Description of PPE	Required Yes/No? (tick ✓)	Type of PPE (In accordance with PPE regulation or international standards)
Head protection Safety Helmet	Yes/No-	EN 397:2012+A1:2012
Foot protection - Boots - Wellington	Yes/No-	BS EN ISO 20345:2011
High visibility clothing - Vest, - Jackets - Trousers	Yes/No-	EN 471
Hand protection - General - Chemical - Mechanical - Thermal	Yes/No-	EN 420 EN 374 EN 388 EN 407
Eye protection - Glasses - Goggles - Visor	Yes/No--	EN 166
Hearing protection - Earmuff - Earplugs - Helmet Earmuff	Yes/No	EN 352 – 1 EN 352 – 2 EN 352 – 3
Clothing - Waterproof/foul weather - Chemical resistant - Heat and flame	Yes/No-	EN 343 EN 465 EN 533
Respiratory protection - Filtering face-piece - Half face mask - Full face mask	Yes/No	EN 149 FFP3 EN 140 EN 136
Fall arrest protection - Full body harness - Fall arrest system - Fall restraint system	Yes/No	EN361 EN362 EN353
Other PPE required	-	

Form

Safe System of Work Form

I: Are other contractors involved in the activity? (If so state name, address and key contact details). Other site health and safety information.

J: Details of contacts, site management etc., or special emergency arrangements

Contracts Manager	
Project Manager	
Senior Engineer	
Construction Manager	
Site Supervisor	
Safety Manager/Advisor	
JRL Safety Department	0208 953 7800

K: Name of manager / supervisor responsible for implementation of safe system of work (communications and monitoring compliance)

Name (please print):		
Position:	Contact no:	

1. Check all sections and confirm correct.

Signature:		Date	
------------	--	------	--

2. Issue document to site team and ensure briefing.

Signature:		Date:	
------------	--	-------	--

L: Details of personnel involved and confirmation that information and instructions in this document have been satisfactorily communicated.

I/We the undersigned have been instructed and made aware of the contents of this 'Safe System of Work and Risk Assessment/s' and agree to comply with its requirements. If we are unable to carry out the work safely we agree that we must immediately stop work and inform our manager/supervisor.

Date	Name	Position/Role	Signature	Briefing given by

Risk Assessment Guidance and Briefings					
Assessment for:					
Site location:		Date of assessment			
Area:					
Assessment conducted by:		Position:		Date:	
Assessment reviewed by:		Position:		Date:	
Date of next review:					
Responsible manager to review control measures in section A.					
Name:		Position:			
Signature:		Date:			

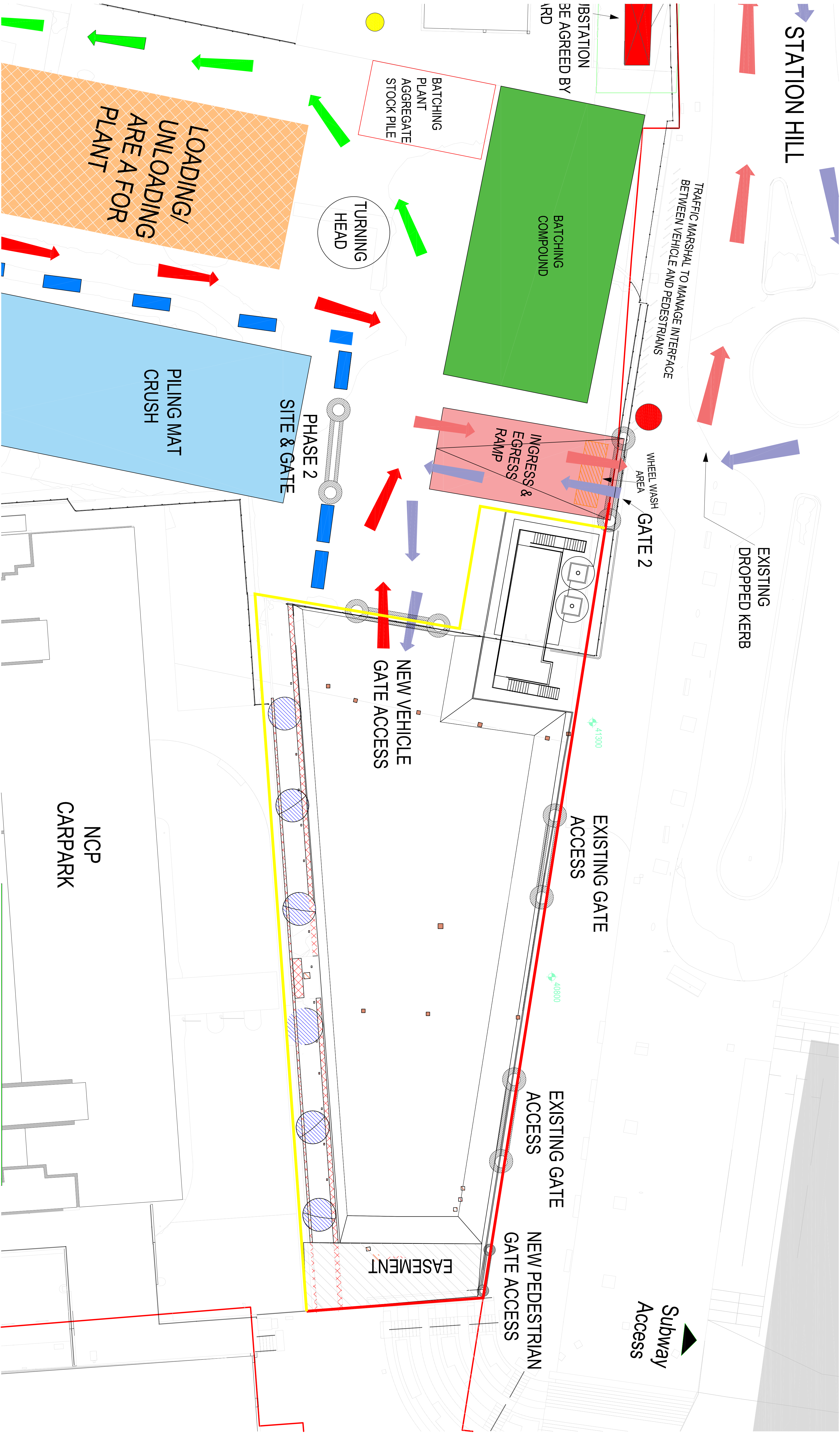
Relevant Risk Assessment Guidelines (RAG) and Risk Assessment Environmental (RAE) attached

Note: Each relevant RAG and RAE to be in place, associated toolbox talk completed and section L of this form completed.

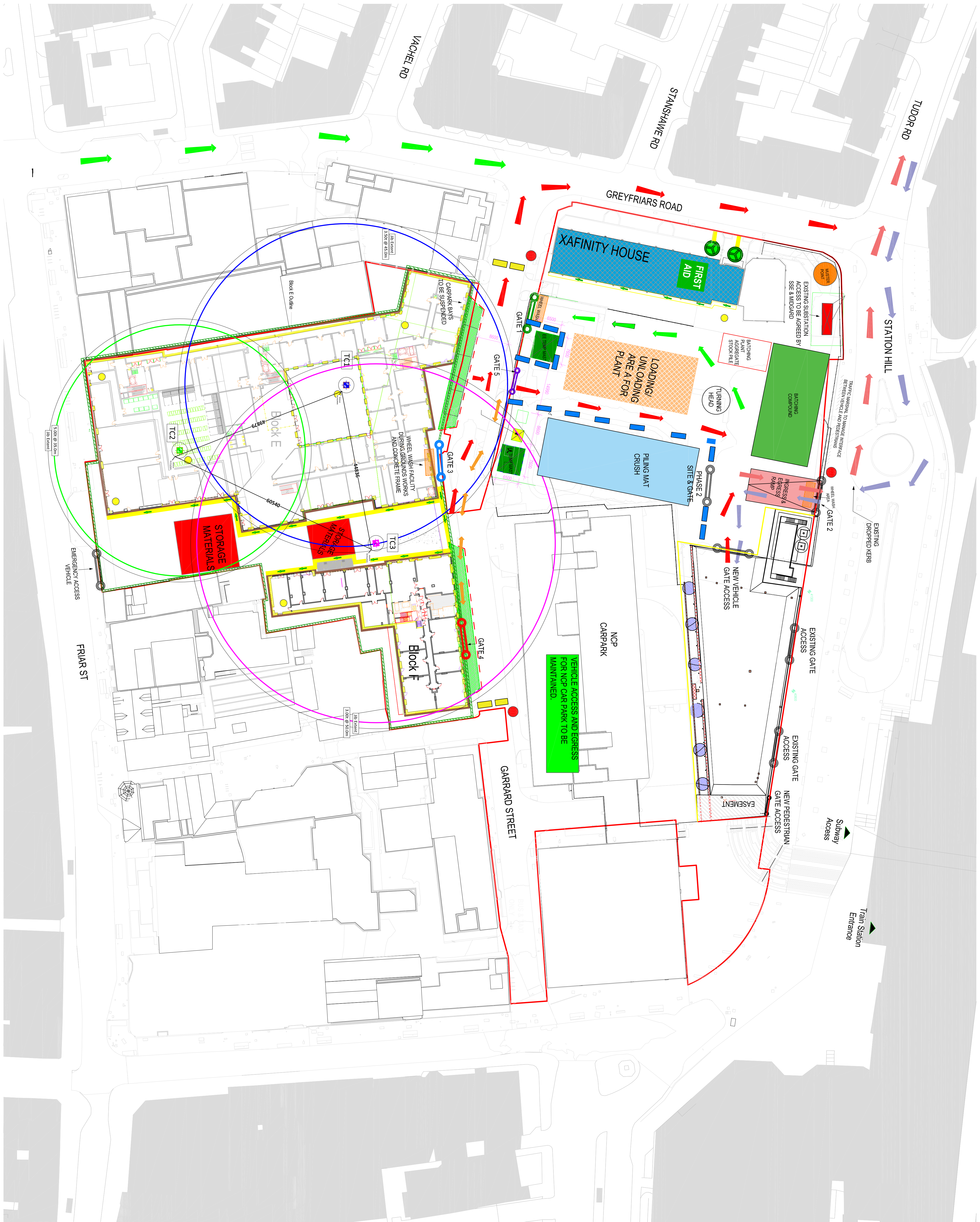
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WORK MUST NOT START UNTIL CONTROLS ARE IN PLACE, THESE BRIEFINGS HAVE BEEN DISCUSSED AND ALL SIGNATURES OBTAINED.

SIGNATURES SHOULD BE OBTAINED AND RECORDED ON THE SHE 4 DOCUMENT



STATION HILL, READING
VEHICLE LOGISTICS PLAN
Ground Floor



Pedestrian Turnstile

Site Hoarding

Scaffolding

Pedestrian Walkway

XAFINITY HOUSE:
Contractors Parking to
Undercroft on Ground Floor,
Turnstyles on Ground Floor,
Welfare & Offices over 3 Levels
(Level 01, 02 & 03)

Hoist

Loading/Unloading Area

Material Storage Area

Unloading Area

Wheel wash point

Batching Compound

Piling Mat Crush

External Lights (floodlights)

Mustet Point

Traffic Marshall

Gate 1 (New)

Gate 2 (subject to Client
Planning Approval), (New)

Gate 3 (New)

Gate 4 (New)

Gate 5 (Existing)

Controlled access management
by Midgard

Access for service providers and
patrons to all premises on
Garrard Street and merchants
place to be controlled and
managed by Midgard

Traffic Barriers

Suspended Parking Bays

Substation

Existing Substation

Telecoms Mast (Existing)

EE Temp Mast (Future)

Route 1:
IN

OUT

Route 2:
IN

OUT

N

5m

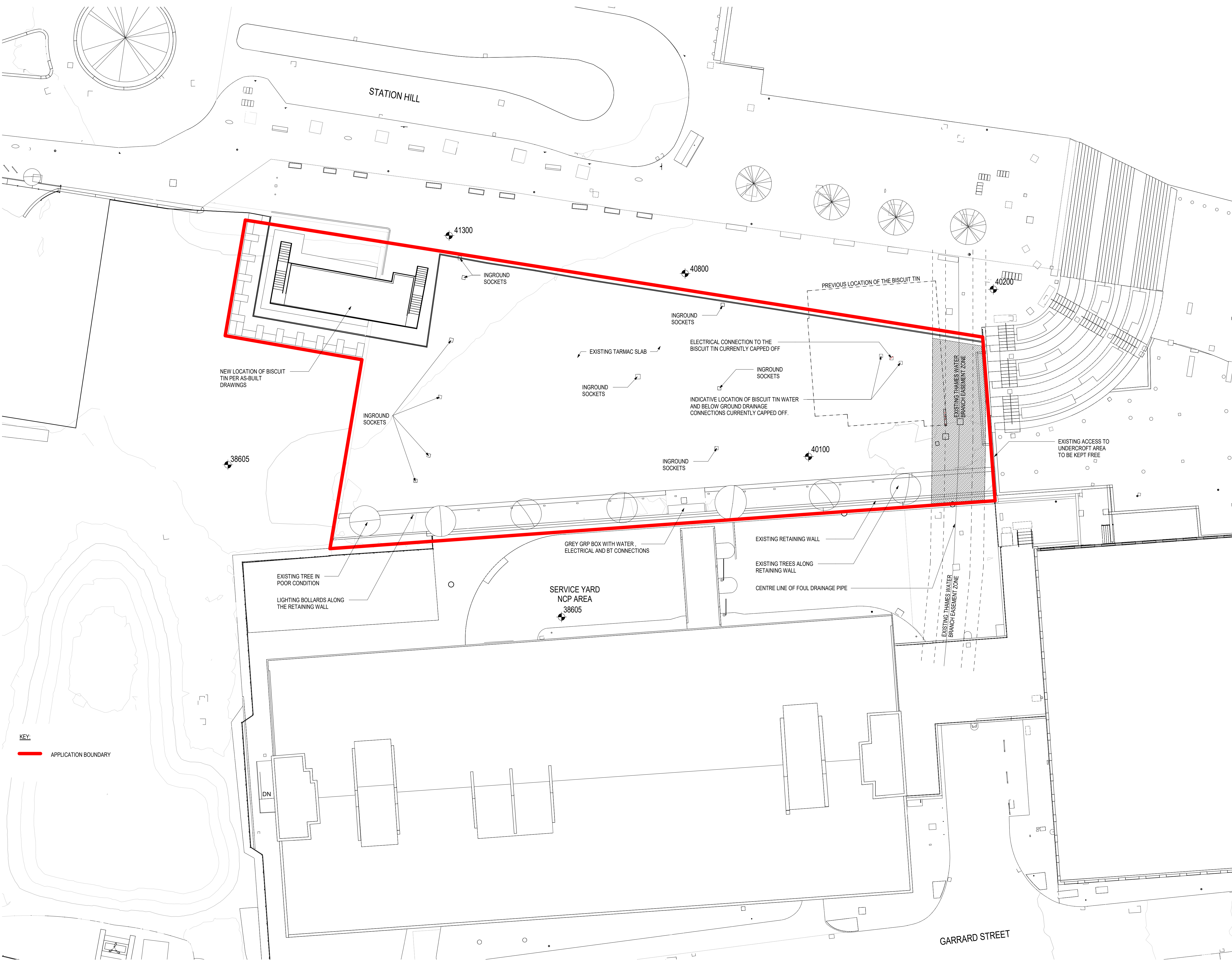
10m

20m

50m

Scale 1:500

SCALE @ A1: 1: 500

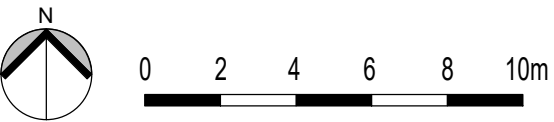
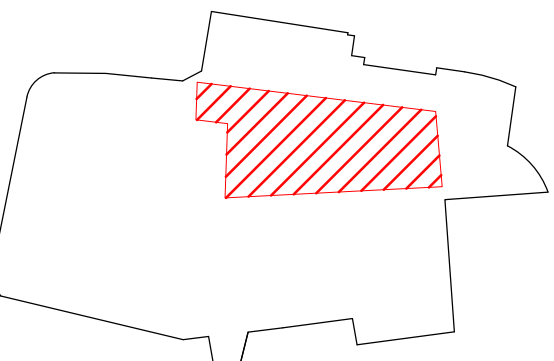


GENERAL NOTES
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Notes and material designations are typical for similar conditions unless otherwise indicated.
Do not scale from this drawing.

DRAFT V3
ISSUED DATE: 24.03.2020

REV No.	DATE	DESCRIPTION	DWN	CHK

KEY PLAN



PROJECT

**STATION HILL
NORTH, READING**

CLIENT

**SH READING
MASTER LLP**

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISONRTKL
25 Farringdon Street, 10th Floor
London EC4A 4AB

T: +44(0)20 7306 0404

SHEET IDENTIFICATION
TITLE

**08 ENABLING WORKS
PHASE 2:**

EXISTING PLAN

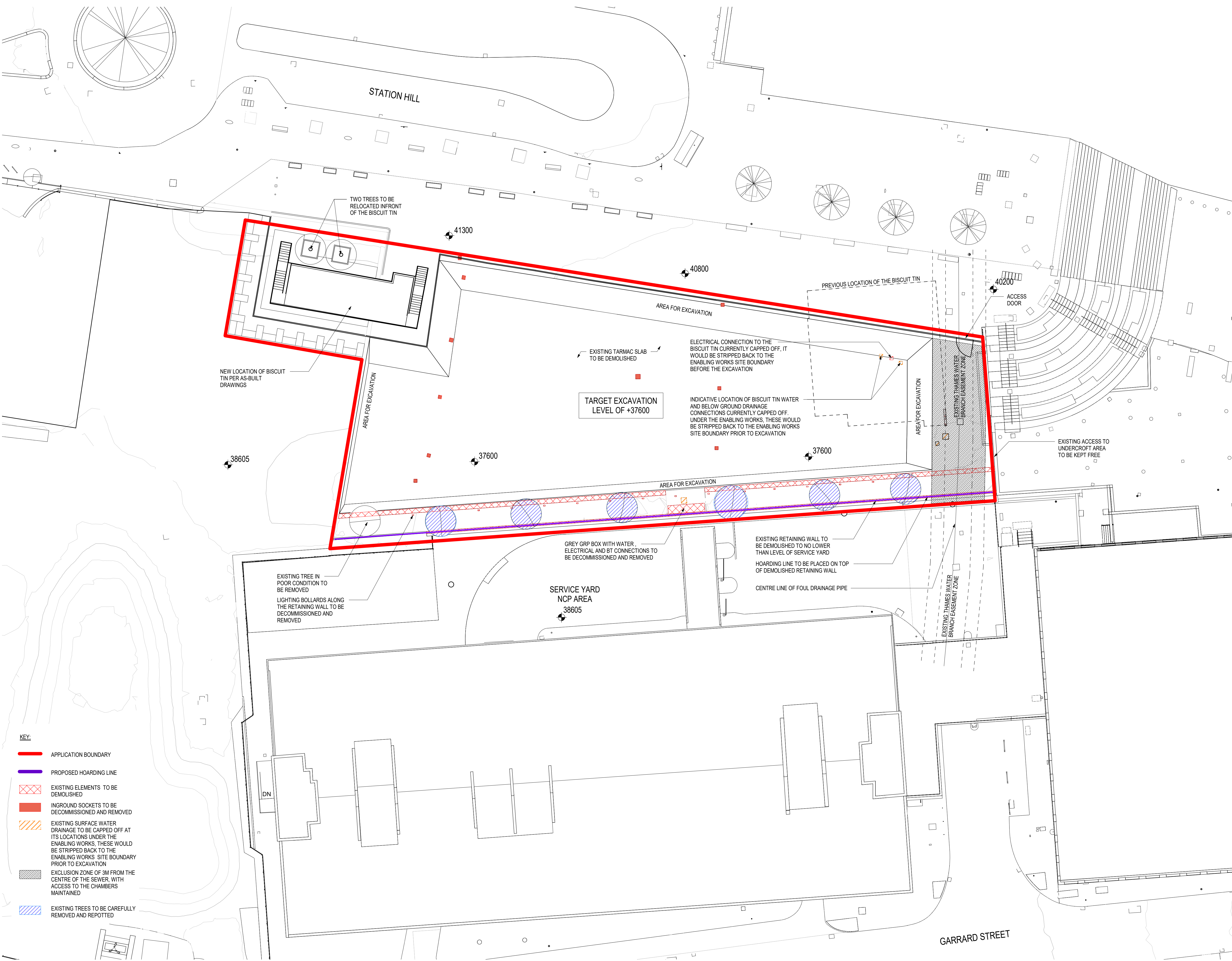
STATUS

FOR PLANNING

PROJECT NUMBER: **050-170073**
DATE DRAWN: 03/19/20
SCALE @ A1: 1:200

DRAWN BY: YL
CHECKED BY: YL

PROJECT	ORIGINATOR	ZONE	LEVEL	TYPE
SHRN - CRL - SW - ZZ - PL				
ROLE	NUMBER	REVISION		
A - 0801 -				



KEY:

- APPLICATION BOUNDARY
- PROPOSED HOARDING LINE
- EXISTING ELEMENTS TO BE DEMOLISHED
- INGROUND SOCKETS TO BE DECOMMISSIONED AND REMOVED
- EXISTING SURFACE WATER DRAINAGE TO BE CAPPED OFF AT ITS LOCATIONS UNDER THE ENABLING WORKS, THESE WOULD BE STRIPPED BACK TO THE ENABLING WORKS SITE BOUNDARY PRIOR TO EXCAVATION
- EXCLUSION ZONE OF 3M FROM THE CENTRE OF THE SEWER, WITH ACCESS TO THE CHAMBERS MAINTAINED
- EXISTING TREES TO BE CAREFULLY REMOVED AND REPOTTED

GENERAL NOTES

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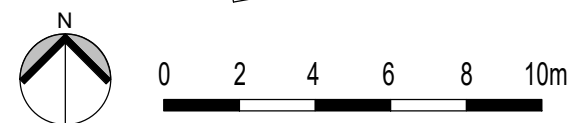
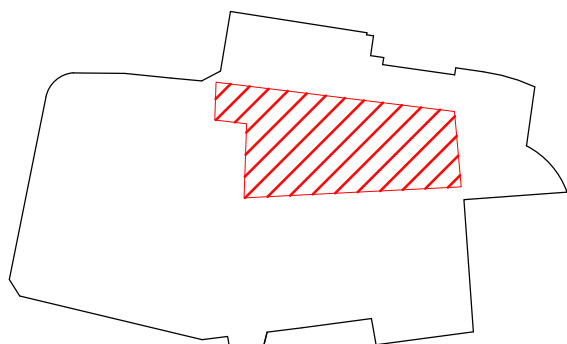
Do not scale from this drawing.

DRAFT V6

ISSUED DATE: 24.03.2020

REV No.	DATE	DESCRIPTION	DWN	CHK
---------	------	-------------	-----	-----

KEY PLAN



PROJECT

STATION HILL
NORTH, READING

CLIENT

SH READING
MASTER LLP

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISONRTKL

25 Farringdon Street, 10th Floor
London EC4A 4AB

T: +44(0)20 7306 0404

SHEET IDENTIFICATION

TITLE

08 ENABLING WORKS
PHASE 2:

PROPOSED PLAN

STATUS

FOR PLANNING

PROJECT NUMBER
050-170073

DATE DRAWN: 03/13/20
SCALE @ A1: 1:200

DRAWN BY: SZ
CHECKED BY: YL

PROJECT	ORIGINATOR	ZONE	LEVEL	TYPE
SHRN	CRL	- SW	- ZZ	- PL

ROLE NUMBER REVISION
A - 0803 -



STATION HILL NORTH

Phase 2 Enabling Works Technical Specification

For

Station Hill, Reading

March 2020

project no. 1620004716

Ramboll UK

CONTENTS

Section	Item	Page
C05	ENABLING WORKS CONTRACT PRELIMINARIES	3
C20	DEMOLISHING STRUCTURES	11
D20	EXCAVATION AND FILLING	15

Revision History

Rev	Date	Purpose/Status	Document Ref.	Comments
P01	16/03/20	For Tender		

Prepared by:

Reviewed by:

Approved by:

Sheena Patel
Associate

Sheena Patel
Associate

Mark Nevill
Director

C05 ENABLING WORKS CONTRACT PRELIMINARIES

PROJECT PARTICULARS

- 110 THE PROJECT:
Name: Station Hill, Reading – North site
Location: Station Hill, Reading, Berkshire

- 120 EMPLOYER (CLIENT):

Company	Contact Name	Email	Phone number
LPC	Lee Fearnhead	lfearnhead@LPC.com	07950 182062

- 130 PROJECT MANAGER AND PROJECT SUPERVISOR (as defined in NEC contract) hereinafter referred to as the 'Contract Administrator' or 'CA'): As set out in the Enabling Works Contract to be read in this specification as below.

Role	Company	Contact Name	Email	Phone number
'CA '	Cast	Rudo Manokore-Addy	rudo.manokore-addy@cast-consultancy.com	07717 347 584

- 140 PRINCIPAL CONTRACTOR:
The Contractor.

- 150 CDM CO-ORDINATOR:

Company	Contact Name	Email	Phone number
TBC	TBC	TBC	TBC

- 160 CONSULTANTS:

Role	Company	Contact Name	Email	Phone number
Project Manager	Cast	Rudo Manokore-Addy	rudo.manokore-addy@cast-consultancy.com	07717 347584
Cost consultant	Cast	Vicki Legrove	vicki.legrove@cast-consultancy.com	07341 782056
Structural Engineer	Ramboll	Sheena Patel	Sheena.patel@ramboll.co.uk	07929 044639
Site Investigations				
Archaeology				
Utilities	Hoare Lea			

THE SITE AND THE WORKS

210 PREPARATORY WORK BY OTHERS:

- Geotechnical site investigation:
- Ground contamination interpretative report: trial pits were carried out as part of the project ground contamination investigation. The factual and interpretative report was produced by Ramboll reference SHR-RAM-NB-XX-RP-G-000022 dated 12/12/2019.
- A Below Ground Services survey for the site was conducted by Plowman Craven. Refer to Plowman Craven drawings 40652T-01A
- A CCTV survey of the existing drainage has been procured by the Client. The results of the survey should be available prior to commencement of the Works

220 THE WORKS:

- Demolition / excavation of the space to the north of the NCP car park in front of Reading train station, including part demolition of existing NCP retaining wall to a proposed formation level identified on drawing SHRN-RAM-S2-ZZ-DR-S-0021 and SHRN-CRL-S2-ZZ-PL-8010. *Note that new retaining wall to the north of the site is not part of the enabling works and is to be constructed as a part of the main Phase 2 construction works.*
- Removal of foundations
- Removal of existing ground obstructions and below ground structures within the site boundary; all areas of the site which have been dug below the target formation level should be brought back up to that level. This should be achieved by using site won material as noted in the excavation and filling specification.
- Protection from damage and falling debris from demolition during the works.
- Crush and stockpile building material on site in accordance with clause C20 355
- Installation of site hoardings and welfare and removal of welfare after completion of the Works. Site hoarding to be coordinated with wider site activities – to be agreed. Site hoarding licence to be applied for and consented.
- Stop all existing utilities at site boundary and remove or retain as shown on the tender information provided by Hoare Lea

230 THE TENDER DOCUMENTS are:

As provided by Cast

240 INSPECTION: Drawings and other documents relating to the Contract but not included in the tender documents may be seen by arrangement

250 THE SITE:

The boundary of the site is indicated on the site plan drawing within the tender package

261 EXISTING BUILDINGS ON THE SITE:

The site was previously occupied by a shopping arcade and the Western Tower to the west. The site was previously demolished and the temporary event space created as an interim use before redevelopment. No post demolition or records have been made available. To mitigate the risk of future clashes with previous foundations an enabling works package of works is to be carried out – to reduce the level of this part of the site, remove obstructions and record the location of any remaining piles. Appendix A include demolition photographs and elevation survey prior to demolition.

262 EXISTING BUILDINGS ADJACENT TO THE SITE:

Refer to drawings the tender information for a selection of available drawing information.

Adjacent to the site to the north is Reading train station.

Adjacent to the site, to the east is Thames Tower – a recently updated office building which is now occupied and overlooks the site.

To the south the site is bounded by the NCP car park access road and boundary wall.

To the west is the 'phase 3' part of the wider development and currently being used as a stockpile for the demolition crush material from 'phase 1'.

271 EXISTING MAINS/SERVICES:

A Below Ground Services survey for the site was conducted by Plowman Craven. Refer to Plowman Craven drawing 40652T-01A

The Contractor is to verify all information related to existing services before proceeding with demolition work and make allowances for any unrecorded services. Refer to Hoare Lea information for more details.

273 SITE INVESTIGATION: A report produced by Geotechnical Engineering Ltd – reference 35248 dated 23/08/2019 - is included in the tender documents.

276 A HEALTH AND SAFETY FILE and PRE-CONSTRUCTION INFORMATION for the site/building will be available from the CDM Coordinator prior to commencement of the site works

279 ACCESS TO THE SITE:

Access to the site is to be agreed.

282 USE OF THE SITE:

- Do not use the site for any purpose other than carrying out the Works.
- Do not display or permit advertisements to be displayed on site without consent of the CA.
- No use of mobile cranes on site without approval from Network Rail as required.

285 WORKING AREA:

- The Contractor will be confined to the area within the site boundary as indicated on tender drawings.
- Work adjacent to the site boundary is to be by agreement - erect, maintain and remove on completion any necessary extensions of fences and hoardings.

288 SURROUNDING LAND/BUILDING USES:

Refer to clause 262.

291 RISKS TO HEALTH AND SAFETY:

The nature and condition of the site/building cannot be fully and certainly ascertained before it is opened up. The accuracy and sufficiency of this information is not guaranteed by the Employer or the CA and the Contractor must ascertain for himself any information he may require to ensure the safety of all persons and the Works. However the following structural or material hazards are or may be present:

- Asbestos.
- Concrete elements.
- Mould/spores.
- Rats/Leptospirosis.
- Adjacent railway.
- Adjacent public spaces and access routes

294 SITE VISIT: Before tendering, ascertain the nature of the site, access thereto and all local conditions and restrictions likely to affect the execution of the Works.

297 SITE VISIT may be made by arrangement with the CA.

298 LOCAL PLANNING and BUILDING CONTROL REQUIREMENTS

-A separate planning application is being submitted for these works as they sit outside of the scope of the earlier planning permissions on the site.

-outline planning consent imposes a number of conditions which apply to the demolition phase. The Contractor is to allow for discharging the conditions and adhering to the restrictions within during the Works.

- An initial Site Waste Management Plan (SWMP) may be required, reference Clause 210. The Contractor is responsible for updating and maintaining the SWMP as required by the local planning authority. The Contractor should ensure the method for removal and disposal of identified and non-identified asbestos is included in the SWMP
- Furthermore, the planning consent requires a site wide Demolition and Construction Environmental Management Plan (DCEMP) to be approved prior to the commencement of The Project. The Contractor is responsible for providing and submitting all information required within the DCEMP to the local planning authority.
- The demolition and enabling works contractor will be required to undertake work as per the methodology and mitigation measures that are to be submitted and agreed with the Natural England

299 SUSTAINABILITY AUDITS

The works should conform to the ICE's Demolition Protocol as required for new developments. The Contractor should indicate clearly to the CA the cost saving associated with not conforming to the protocol.

THE CONTRACT AND TENDERING

301 FORM OF CONTRACT

Refer to separate documentation by Cast.

360 PRICING OF SPECIFICATION:

Alterations and qualifications to the specification must not be made without the written consent of the CA. Tenders containing unauthorised alterations or qualifications may be rejected. Costs relating to items in the specification which are not priced will be deemed to have been included elsewhere in the tender.

366 CREDITS FOR MATERIALS ARISING:

- The Contractor is to itemise in his tender all components and materials which are to become his property giving, for each one, the value of the credit included in the tender.
- The value of such components and materials must be allowed for in applications for payment under the Contract.

370 DAYWORK CHARGES: Refer to separate documentation by Cast.

380 METHOD STATEMENTS, an outline method statement must be submitted with the tender, describing how and when the Contractor proposes and undertakes to carry out the following:

- Excavation / earthworks to achieve target excavation level.
- Retention and protection of the foundations at the boundary

- Crushing of building material on site to clause C20 355
- Recording / survey of remaining foundations
- The Contractor may, at his discretion and at the same time, submit method statements for other parts of the Works.

A full method statement for the above must be submitted and approved before commencement of the Works.

- 381 RAILWAY APPROVAL. It is not anticipated that any methodology would require Network Rail approval. However, design submissions for any tower cranes/scaffolding on the railway elevations and other temporary works that may be deemed to affect the railway will be required including excavation and ground preparation for mobile cranes.

The final list of required submissions will be confirmed by Network Rail following a review of the Contractor's initial method statement.

Cast have initiated discussions with Network Rail in relation to the wider site redevelopment and can provide contact details for the case engineer and details of any conditions and agreements in place to enable the contract to gain Network Rail approval for the Works

- 390 HEALTH AND SAFETY INFORMATION: A statement must be submitted with the tender describing the organisation and resources which the Contractor proposes and undertakes to provide to safeguard the health and safety of operatives, including those of subcontractors and of any person who may be affected by the works, including:
- A copy of the Contractors health and safety policy document, including risk assessment procedures.
 - Accident and illness records for the past five years.
 - Records of previous Health and Safety Executive enforcement action.
 - Records of training and training policy.
 - The number and type of staff responsible for health and safety on this project with details of their qualifications and duties.

MANAGEMENT OF THE WORKS

- 410 IN WRITING: When required to notify, inform, instruct, agree, confirm, obtain information, obtain approval or obtain instructions do so in writing.
- 420 APPROVAL (and words derived there from) means the approval in writing of the CA unless specified otherwise.
- 430 SUPERVISION:
- Accept responsibility for coordination, supervision and administration of the Works, including all subcontracts.
 - Arrange and monitor a programme with each subcontractor, supplier, statutory undertaker and the Local Authority and obtain and supply information as necessary for coordination of the work.
 - Allow in the programme for any periods of notice for inspection required by the Local Authority or statutory undertaker.
- 435 PROGRAMME:

As soon as possible and before starting work on site prepare, in an approved form, a programme for the Works, based on the Enabling Works programme produced by Cast, which must make allowance for all:

- Planning and mobilisation by the Contractor.
- Subcontractor's work.
- Work resulting from instructions issued in regard to the expenditure of provisional sums (if any).
- Work by others concurrent with the Contract.
- Archaeological watching brief/approvals.

Submit pdf and native format copies to the CA.

440 SITE MEETINGS:

- Before commencement of work on site, hold a meeting with the CA, Local Authority, statutory undertakers
- The CA may arrange site meetings to review progress and other matters arising from the administration of the Contract.

450 SITE INSPECTIONS: The CA will require access to the site at all reasonable times. Agree dates and times of inspections with the CA several days in advance, to enable the CA and other affected parties to be present.

453 STAKEHOLDERS: Make and maintain regular contact through the full period of the works with all relevant stakeholders, including but not limited to:

- Thames Tower
- Network Rail
- Police
- Statutory Authorities

SECURITY/SAFETY/PROTECTION GENERALLY

500 THE PRE-TENDER HEALTH AND SAFETY PLAN is integral with the Preliminaries and Specification. Commonplace hazards which should be controlled by good management and good site practices are not listed. Specific hazards which may present a risk to the health and safety of demolition workers and others are given elsewhere in the Preliminaries and Specification. Refer to Clause 276.

505 THE DEMOLITION PHASE HEALTH AND SAFETY PLAN, developed from the Pre-tender Health and Safety Plan must be submitted to the CA not less than two weeks before the proposed date for start of demolition work. Do not start demolition work until the Employer has confirmed in writing that in his view the Demolition Phase Health and Safety Plan includes the procedures and arrangements required by the CDM Regulations. The plan must include:

- Detailed proposals for managing health and safety during the demolition phase together with site rules and emergency procedures.
- Method statements related to the hazards identified in the Preliminaries and Specification and/or statements on how the hazards will be addressed and other significant hazards identified by the Contractor.

508 HSE APPROVED CODES OF PRACTICE: Comply with all health and safety legislation including the following:

- Management of health and safety at work.
- Managing construction for health and safety.

510 SECURITY: Adequately safeguard the site, the Works, products, materials arising, plant, and any existing buildings affected by the Works from damage and theft. Take

all reasonable precautions to prevent unauthorised access to the site, the Works and adjoining property.

520 PUBLIC SAFETY:

- Protect the public and occupiers of adjoining property by erection of temporary fences, hoardings, fans, footpaths, warning lights, etc. before starting work.
- Ensure that means of escape from adjoining property in the event of fire are maintained for the duration of the Works.

530 OCCUPIED PREMISES:

- There are no existing buildings on the site that will be occupied and/or used during the Contract.

533 EMPLOYER'S REPRESENTATIVES SITE VISITS:

Inform the CA in advance of all safety provisions and procedures (including those relating to materials which may be deleterious) which will require the compliance of the Employer or his representatives when visiting the site. Provide protective clothing and/or equipment for the Employer and his representatives as appropriate.

538 THE HEALTH AND SAFETY FILE: Provide such information as is reasonably required by the CDM Co-ordinator and in accordance with the relevant legislation.

PROTECT AGAINST THE FOLLOWING

540 EXPLOSIVES: Do not use.

552 NOISE:

- Comply generally with BS 5228.
- Noise levels from the works are to be kept below a level to be agreed with the Local Authority and the CA.
- Fit all compressors, percussion tools, and vehicles with effective silencers of a type recommended by manufacturers of the compressors, tools or vehicles.
- Do not use pneumatic drills and other noisy appliances outside the site working hours without consent of the CA.
- Do not use or permit employees to use radios or other audio equipment in ways or at times which may cause nuisance.

560 POLLUTION: Take all reasonable precautions to prevent pollution of the site, the Works and the general environment including streams and waterways. If pollution occurs, inform the appropriate authorities and the CA without delay and provide them with all relevant information.

570 NUISANCE: Take all necessary precautions to prevent nuisance from smoke, dust, rubbish, vermin and other causes.

580 FIRE: Take all necessary precautions to prevent personal injury, death, and damage to the Works or other property from fire.

590 FLOOD: Ensure that there is no hazardous build-up of water. Provide for temporary conveyance and disposal of rainwater from existing structures and the site during the course of the Works.

600 BURNING ON SITE of materials arising from the work will not be permitted.

610 RUBBISH:

- Remove rubbish, debris and surplus material and spoil regularly and keep the site and Works clean and tidy.
- Remove all rubbish, dirt and residues from voids and cavities before filling or closing in.
- Ensure that unwanted non-hazardous material and rubbish is disposed of at a tip approved by the Waste Regulation Authority.
- Remove all surplus hazardous materials and their containers regularly for disposal off site in a safe and competent manner as approved by the Waste Regulation Authority and in accordance with relevant regulations.
- Retain copies of waste transfer documentation on site and make available for inspection by the CA on request.

620 ELECTROMAGNETIC INTERFERENCE: Take all necessary precautions to avoid excessive electromagnetic disturbance of apparatus outside the site.

PROTECT THE FOLLOWING

640 EXISTING SERVICES:

- Notify all service authorities and/or adjacent owners of the proposed works not less than one week before commencing site operations.
- Before starting work check positions of existing services.
- Observe service authority's recommendations for work adjacent to existing services. Do not interfere with their operation without consent of the service authorities or other owners.
- If any damage to services results from the Works notify CA and appropriate service authority without delay. Make arrangements for making good without delay to the satisfaction of the service authority or other owner as appropriate.
- Replace marker tapes or protective covers disturbed by site operations to the service authority's recommendations.
- Make allowance for unknown services.

641 EXISTING SERVICES TO BE PROTECTED

- Existing drainage infrastructure to be protected is shown on drawings SHRN-RAM-S2-ZZ-DR-S-0021. Refer to Clause C20 160.
- Other existing services to be retained refer to Hoare Lea

650 ROADS AND FOOTPATHS: Adequately maintain roads, footpaths, and cycle routes within and adjacent to the site and keep clear of mud and debris. Any damage to roads and footpaths caused by site traffic or otherwise consequent upon the Works must be made good to the satisfaction of the Local Authority or other owner. Bear any costs arising. In addition to the requirements of clause 520, the Contractor should, as a minimum, provide the protection necessary to pedestrians and to users of adjacent buildings through use of scaffold fans, crash decks or similar.

684 ADJACENT PROPERTY CONDITION

Adjacent properties including the rail and road must not be damaged by the demolition works.

690 MATERIALS FOR REUSE: The phrase 'keep for reuse' means:

- During removal prevent damage to the stated components or materials, and clean off bedding and jointing materials.
- Stack neatly, adequately protect and store until required by the Employer or for use in the Works as instructed.
- Retain materials sufficient for use as fill and pile mat to Section C20 Clause 355. All material to be stored in the location as shown on Ramboll drawings unless agreed otherwise.

SPECIFIC LIMITATIONS ON METHOD/SEQUENCE/ TIMING

- 710 METHOD/SEQUENCE OF WORK:
To be agreed with the CA.

- 750 WORKING HOURS:
The working hours for the site are in accordance with the Local Authority planning conditions and are between 0800 hours to 1800 hours, Monday to Friday, and 0800 hours to 1300 hours on Saturday and at no time on Sundays, Bank or Public Holidays, unless in accordance with agreed emergency procedures for deviation. Prior notice and agreement procedures for works outside agreed limits and hours

FACILITIES/TEMPORARY WORK/SERVICES

- 810 GENERAL COST ITEMS: Include for all such items:
- Management and staff.
 - Site accommodation.
 - Services and facilities.
 - Mechanical plant.
 - Temporary works.
- 821 LOCATIONS: Inform CA of the intended siting of all spoil heaps, temporary works, services and welfare facilities.
- 825 WELFARE FACILITIES: Provide, maintain and remove on completion, welfare facilities for all staff working on site in accordance with health and safety regulations.
- 830 MAINTAIN, alter, adapt and move temporary works and services as necessary. Clear away when no longer required and make good.
- 855 TEMPORARY HOARDING(S): At locations to be determined by the contractor and agreed with the CA
- 865 TEMPORARY SHORING:
Requirements to be determined by the contractor
- 866 TEMPORARY PROPPING:
Requirements to be determined by the contractor
- 880 LIGHTING AND POWER:
- The Contractor must allow for making all arrangements for supply and separate metering of electricity for the works and pay all costs.
- 891 WATER:
- The Contractor must make all arrangements for supply and separate metering of water for the works and pay all costs.

C20 DEMOLISHING STRUCTURES

To be read with Preliminaries/General conditions.

GENERAL REQUIREMENTS

- 110 SURVEY: Before starting work, examine all available information, carry out a survey of the structures, site and surrounding area, and submit a survey report and method statement to the CA covering all relevant matters listed below and in the Health and Safety Executive Guidance Note GS29/1 paragraph 32:
- The form, condition and demolition methods of the structure(s).
 - The form, location and removal methods of any toxic or hazardous materials.
 - The type, condition, and location of adjoining of surrounding premises which may be adversely affected by noise, vibration, dust or removal of structure.
 - The identification and location of services above and below ground.
- 120 EXTENT OF DEMOLITION: Subject to the retention of features, structures, retaining walls, etc., specified elsewhere, excavate and demolish structures down to target formation level identified on drawing SHRN-RAM-S2-ZZ-DR-S-0021.
- 130 GROUNDWORKS:
- Break out old foundations, slabs, tanks, etc. where not identified for retention in Ramboll drawings SHRN-RAM-S2-ZZ-DR-S-0021, to the extent stated and requirements as noted on the drawings.
 - Remove contaminated material as required by the Local Authority and to the requirements of the SWMP
 - Backfill all excavation as specified on the drawings. Record the location of any remaining elements.
- 140 BENCHMARKS: Report to the CA any benchmarks and other survey information found on structures to be demolished. Do not remove or destroy unless instructed.
- 150 FEATURE(S) TO BE RETAINED: The following are to be kept in place and adequately protected:
- None
- 155 EXISTING SLAB TO BE RETAINED
- None
- 160 EXISTING DRAINAGE TO BE RETAINED
- Protect drainage runs at boundary
 - Cap off incoming drainage runs which are to be removed and seal at manholes

SERVICES AFFECTED BY DEMOLITION

- 210 SERVICES REGULATIONS: Any work carried out to or which affects new or existing services must be in accordance with the byelaws or regulations of the relevant statutory authority.
- 220 LOCATION OF SERVICES: Locate and mark the positions of services affected by the work. Arrange with the appropriate authorities for the location and marking of the positions of mains services.
- 231 DISCONNECTION OF SERVICES: Before starting demolition arrange with the appropriate authorities for the disconnection of services and removal of fittings and equipment.
- 241 DISCONNECTION OF DRAINS: Locate and disconnect all disused drain connections. Seal within the site at boundary to approval by plugging at least 400 mm length with grout.

- 250 DRAINS IN USE: Protect drains, manholes, gullies, vent pipes and fittings still in use and ensure that they are kept free of debris at all times. Make good any damage arising from demolition work and leave clean and in working order at completion.
- 260 BYPASS CONNECTIONS: Provide as necessary to maintain continuity of services to occupied areas of the same and adjoining properties. Give a minimum 72 hours' notice to occupiers if shutdown is necessary during changeover.
- 270 SERVICES WHICH ARE TO REMAIN: Notify the CA and service authority or owner of any damage. Make all arrangements for repair to the satisfaction of the CA and service authority or owner. Bear any costs arising.

DEMOLITION WORK

- 310 WORKMANSHIP GENERALLY:
- Standard: Demolish structure(s) in accordance with BS 6187:2011 and Health and Safety Executive Guidance Notes GS29/1, 3 and 4.
 - Operatives must be appropriately skilled and experienced for the type of work and hold or be training to obtain relevant CITB Certificates of Competence.
 - Site staff responsible for supervision and control of the work are to be experienced in the assessment of the risks involved and in the methods of demolition to be used.
- 320 GAS OR VAPOUR RISKS: Take adequate precautions to prevent fire or explosion caused by gas or vapour.
- 330 DUST: Reduce dust by periodically spraying demolition works with water in accordance with an approved Demolition and Construction Environmental Management Plan (DCEMP).
- 340 HEALTH HAZARDS: Take adequate precautions to protect site operatives and the general public from health hazards associated with dangerous fumes and dust arising during the course of the Works.
- 351 ADJOINING PROPERTY:
- When demolishing structure(s) against adjoining property leave adequate temporary support and protection at each stage and arrange for inspection by the CA. Maintain and alter temporary supports and protection as necessary as work progresses.
 - Demolish structures causing a minimum of damage to adjoining property and leave no unnecessary or unstable projections.
 - Do not disturb support to foundations of adjoining property unless otherwise instructed.
 - Report to the CA any defects exposed or becoming apparent in adjoining property.
 - Promptly repair any damage caused to adjoining property by demolition work. Make good to ensure safety, stability, weather protection and security.
- 355 RECYCLING CONCRETE AND BRICK:
- All permitted material is to be crushed for reuse as backfill for voids and as piling mat on site. Material to be crushed and graded to Highways Agency 'Specification for highway works', Table 6/1, Class 6F1 or 6F2.
 - Refer to section D20 620 for filling requirements
 - Tests as required by Highways Agency Specification for Highway Works.
 - Grade certificate from accredited laboratory to be provided to the CA
 - Steel reinforcement, including prestressing strands, to be removed for recycling.
 - Crushing of material is to take place in a location as far reasonable possible from adjacent residential and education areas.

- 360 STRUCTURE(S) TO BE RETAINED:
- Adequately protect parts of existing structure(s) which are to be kept in place.
 - Cut away and strip out the minimum necessary and with care to reduce the amount of making good to a minimum.
 - Prevent debris from overloading any part of the structure which is not to be demolished.
- 370 PARTLY DEMOLISHED STRUCTURE(S):
- Leave partly demolished structure(s) in a stable condition, with adequate temporary support at each stage to prevent risk of uncontrolled collapse.
 - Prevent debris from overloading scaffolding platforms or parts of the structures not yet demolished.
 - Prevent access of unauthorised persons to partly demolished structure(s). Leave safe outside working hours.
- 380 DANGEROUS OPENINGS: Illuminate and protect as necessary.
- 392 ASBESTOS BASED MATERIALS:
- Asbestos containing materials may be encountered during demolition.
 - Report immediately to the CA any suspected asbestos based materials discovered during demolition work. Avoid disturbing such materials. Agree with the CA methods for safe removal.
 - Removal is to be carried out by a Contractor licensed by the Health and Safety Executive and prior to any other works starting in these locations.
 - The Contractor is to comply with the requirements of The Control of Asbestos Regulations 2012.
- 410 UNKNOWN HAZARDS: Inform the CA of any unrecorded voids, tanks, chemicals, etc. discovered during demolition work. Agree with the CA, methods for safe removal, filling, etc.
- 415 GROUNDWATER: Take adequate precautions, including pumping if necessary, when working below the water table.
- 431 FILLING OF BASEMENTS, VOIDS ETC:
- Excavations are to be battered back during demolition as appropriate to avoid destabilising the surrounding ground.
 - Remove all organic material and soil from voids. Fill and consolidate with graded crushed concrete.

MATERIALS ARISING

- 510 OWNERSHIP: Components and materials arising from the demolition work are to become the property of the Contractor except where retained for use on site as fill material, or otherwise provided. Remove from site as work proceeds, except where noted in clause 511.
- 511 OWNERSHIP: The following components and materials are to remain the property of the Employer. Carefully remove and store on site where directed. Protect until removed by the Employer, reused in the works, or end of the Contract.
- Crushed and graded concrete for void backfill and piling mat.
 - Crushed and graded material, including brick for hardcore
- 520 BUILDING MATERIALS TO BE RECYCLED: Brick, stone and concrete arising from demolition work to be crushed, graded and stockpiled for use as hard-core or piling material subject to compliance with clause D20 620.

COMPLETION

- 611 Clear away all debris, vegetation, rubbish and other loose materials, and leave the site in a tidy condition on completion.
- 621 The site perimeter hoarding, including gates, locks etc. to be made good where damaged, and painted in colour(s) agreed with the CA. All to become the property of the Cambridge Assessment / main contractor on completion. All keys to site gates, at least three sets, to be handed over to the CA.
- 631 Produce as demolished drawings indicating the locations and dimensions of any known remaining obstructions, foundations, structures, hoardings and gates. Also to include finished piling mat and ground levels. Pass to the CA.

D20 EXCAVATION AND FILLING

GENERALLY/THE SITE

- 110 SITE INVESTIGATION
 - Report: See section C05.
- 150 EXISTING SERVICES
 - Locations: See section C05.
- 155 SITE FEATURES TO BE RETAINED
 - Details: See section C05.
- 159 EXISTING STRUCTURES
 - Protection: See section C05.

CLEARANCE/EXCAVATING

- 164 TREE ROOTS
 - Protected area: Do not cut roots within an area which is the larger of:
 - the branch spread of the tree.
 - an area with a radius of half the tree's height, measured from the trunk.
 - Outside protected area: Give notice of roots exceeding 25 mm and do not cut without approval.
 - Cutting:
 - Make clean smooth cuts with no ragged edges.
 - Pare cut surfaces smooth with a sharp knife.
 - Backfill: As dug material
- 170 REMOVING TREES, SHRUBS AND HEDGES
 - Refer to LDA Landscape architects information for trees to be kept / removed from site.
 - Identification: Clearly mark trees to be removed.
 - Safety: Comply with Forestry and Arboriculture Safety and Training Council Safety Guides.
 - Felling: Cut down and grub up roots of shrubs and smaller trees. Fell larger trees as close to the ground as possible
 - 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.
 - Stumps: Obtain approval before removing stumps by winching and do not use other trees as supports or anchors.

181 SITE CLEARANCE

- Generally: Clear site of rubbish, debris and vegetation.
- Large roots: Grub up and dispose of without undue disturbance of soil and adjacent areas.
- Chipping and shredding: permitted.

210 MATERIALS ARISING

Ownership: Excavated materials, including topsoil, surplus to requirements for filling remain the property of the Employer unless the Contractor:

- Is instructed to remove them from the site, or
- Purchases them at a price to be agreed.

220 STRIPPING TOPSOIL

- General: Before beginning general excavation or filling, strip topsoil from areas where there will be regarding, buildings, pavings/roads and other areas shown on drawings.

225 HANDLING TOPSOIL

- Aggressive weeds: Give notice and, obtain instructions before moving topsoil.
- Plant: Select and use plant to minimize disturbance, trafficking and compaction.
- Contamination: Do not mix topsoil with:
 - Subsoil, stone, hardcore, rubbish or material from demolition work.
 - Other grades of topsoil.
 - Oil, fuel, cement or other substances harmful to plant growth
- Multiple handling: Keep to a minimum. Use topsoil immediately after stripping.
- Wet conditions: Handle topsoil in the driest condition possible. Do not handle during or after heavy rainfall

230 BENCHING

- Surfaces of excavations with a gradient greater than 1:5 (20%) and which are to receive filling: Provide horizontal benches cut to match the depths of compacted layers of filling.

240 ADJACENT EXCAVATIONS

- Proximity: 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.
- Angle of line from horizontal: 30 °.

250 PERMISSIBLE DEVIATIONS FROM FORMATION LEVELS

- Beneath mass concrete foundations: ±25 mm.
- Beneath ground bearing slabs and r.c. foundations: ±15 mm.
- Embankments and cuttings: ±50 mm.
- 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

- Permissible deviations from linear dimensions generally: ±25 mm.

310 UNSTABLE GROUND

- Generally: Ensure that the excavation remains stable at all times.
- Give notice: Without delay if any newly excavated faces are too unstable to allow earthwork support to be inserted.

- Take action: If instability is likely to affect adjacent structures or roadways, take appropriate emergency action.

320 RECORDED FEATURES

- Recorded foundations, beds, drains, manholes, etc: Break out and seal drain ends.
- Contaminated earth: Remove and disinfect as required by local authority.

330 UNRECORDED FEATURES

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

370 UNDERGROUND STRUCTURES IN LANDSCAPE AREAS

- Generally: Remove walls, roads, foundations, disused services, drains, manholes and the like to minimum depth.
- Minimum depth below finished levels:
 - Grass, ground cover and perennial planting: 500 mm.
 - Shrub planting: 750 mm.
 - Within 2 m of tree planting: 1000 mm.

DISPOSAL OF MATERIALS

415 EXCAVATED TOPSOIL

- Generally: Remove from site.

441 SURPLUS SUBSOIL

- Excavated material: Stockpile in temporary spoil heaps.
- Retained material: Spread and level surplus subsoil on site.
 - Locations: As directed by the CA.
 - Protected areas: Do not raise soil level within root spread of trees that are to be retained.
- Remaining material: Remove from site.

450 WATER

- Generally: Keep all excavations free from water until:
 - Formations are covered.
 - Below ground construction are completed.
 - Basement structures and retaining walls are able to resist leakage, water pressure and flotation.
- Drainage: Form surfaces of excavations and fill to provide adequate falls.
- Removal of water: Provide temporary drains, sumps and pumping as necessary.

454 GROUND WATER LEVEL

- Give notice: If it is considered that the excavations are below water table.

457 PUMPING

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

460 PERMANENT DRAINAGE SYSTEM

- Disposal of water from the excavations through system: not permitted

FILLING

500 PROPOSED FILL MATERIALS

- Details: Submit full details of proposed fill materials to demonstrate compliance with specification, including:
 - Type and source of imported fill.
 - Proposals for processing and reuse of material excavated on site.
 - Test reports as required elsewhere.
 - Timing: At least 14 days before starting filling.
- 510 HAZARDOUS, AGGRESSIVE OR UNSTABLE MATERIALS
- 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:
 - Frozen or containing ice.
 - Organic.
 - Contaminated or noxious.
 - Susceptible to spontaneous combustion.
 - Likely to erode or decay and cause voids.
 - With excessive moisture content, slurry, mud or from marshes or bogs.
 - Clay of liquid limit exceeding 80 and/or plasticity index exceeding 55.
 - Unacceptable, class U2 as defined in the Highways Agency 'Specification for highway works', clause 601.
- 512 LIMITATION OF SULFATE CONTENT IN FILL MATERIAL
- Soluble sulfate content (SO_3) of materials for filling under concrete slabs or within 1 m of substructures when tested to BS 1377-3, clause 5 using a 2:1 water-soil extract (maximum): <1g/litre.
- 520 FROST SUSCEPTIBILITY
- General: Except as allowed below, fill must be non-frost-susceptible as defined in Transport Research Laboratory Report SR 829 'Specification for the TRL frost-heave test'.
 - Test reports: If the following fill materials are proposed, submit a laboratory report confirming they are non-frost-susceptible:
 - Fine grained soil with a plasticity index less than 20%.
 - Coarse grained soil or crushed granite with more than 10% retained on a 0.063 mm sieve.
 - Crushed chalk.
 - Crushed limestone fill with average saturation moisture content in excess of 3%.
 - Burnt colliery shale.
 - Frost-susceptible fill: May only be used within the external walls of buildings below spaces that will be heated. Protect from frost during construction.
- 525 TESTING OF FILL MATERIALS
- Laboratory: Contractor to submit proposal to CA for approval.
 - Submit report to: CA.
 - Timing: 14 days before filling.
 - Samples: Deliver to laboratory as required.
 - Tests: as required by Highways Agency Specification for Highway Works.
 - Frequency: Submit to CA proposed frequency of testing to demonstrate continuing compliance of imported and reprocessed fill with specified properties.
- 530 PLACING FILL
- Excavations and areas to be filled: Free from loose soil, rubbish and standing water.
 - Freezing conditions: Do not place fill on frozen surfaces. Remove material affected by frost. Replace and recompact if not damaged after thawing.
 - Adjacent structures, membranes and buried services:
 - Do not overload, destabilise or damage.

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- Filling: Place and compact to Highways Agency Specification for highway works, Table 6/1, clause 612 and clause 613.3, 613.9 and 613.10.
- 625 COMPACTED GENERAL FILLING/EARTHWORKS
- Specification: Highways Agency 'Specification for highway works', Earthworks section, clauses 608, 610, 612, Table 6/1, Table 1/5 and Appendices 6/1 to 6/15.
 - Definition: References to the 'Overseeing Organisation' are deemed to be to the CA.
- 650 PROTECTION OF COMPACTED FILLING
- 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.
 - Removal: Remove temporary protective filling from site before permanent construction.
- 710 HARDCORE FILLING
- Fill: Granular material, free from excessive dust, well graded, all pieces less than 75 mm in any direction, minimum 10% fines value of 50 kN when tested in a soaked condition to BS 812-111, and in any one layer only one of the following:
 - Crushed rock (other than argillaceous rock) or quarry waste with not more binding material than is required to help hold the stone together.
 - Crushed concrete, crushed brick or tile, free from plaster, timber and metal.
 - Crushed non-expansive slag.
 - Gravel or hoggins with not more clay content than is required to bind the material together, and with no large lumps of clay.
 - Well-burned non-plastic colliery shale.
 - Natural gravel.
 - Natural sand.
 - Filling: Spread and level in 150 mm maximum layers. Thoroughly compact each layer.

Appendix A – Historic and current site photographs

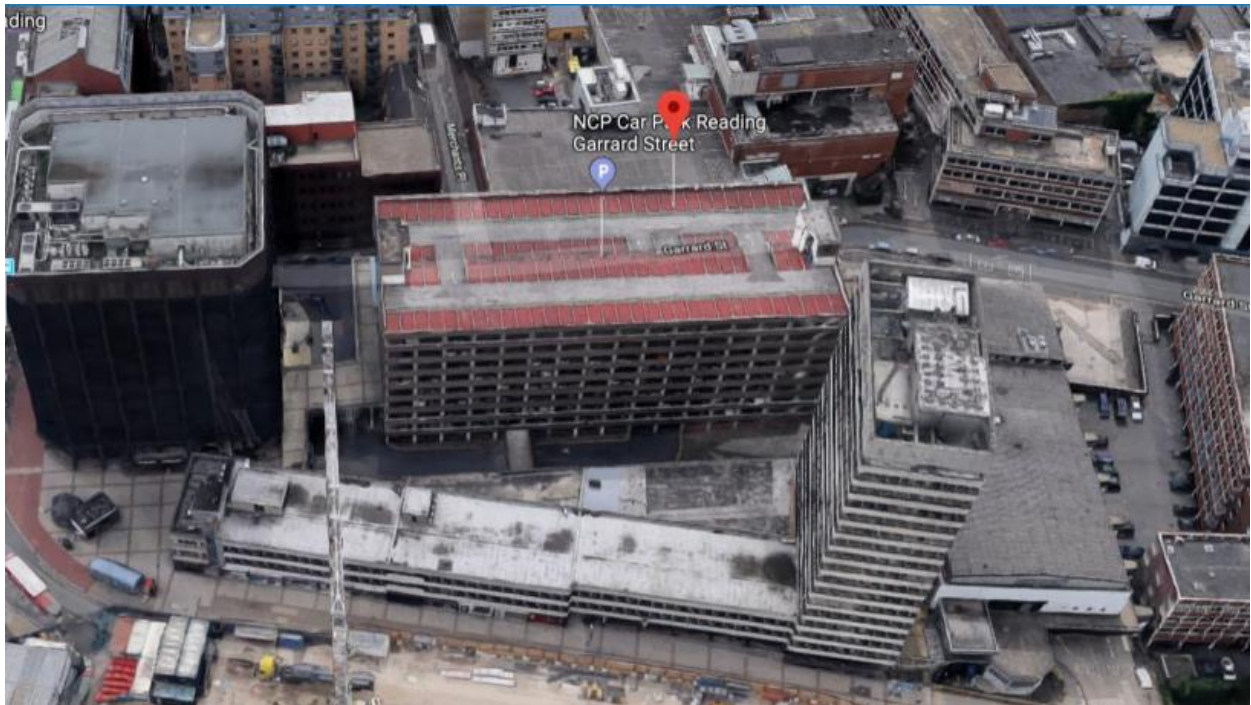


Figure 1: Historic plan view of site showing NCP car park, Western Tower and Bus station/Bingo hall buildings



RAMBOLL

<https://www.careysplc.co.uk/scudder-demolition/projects/station-hill>

Figure 2: Historic photographs showing frame of Thames Tower and demolition site north of NCP car park.

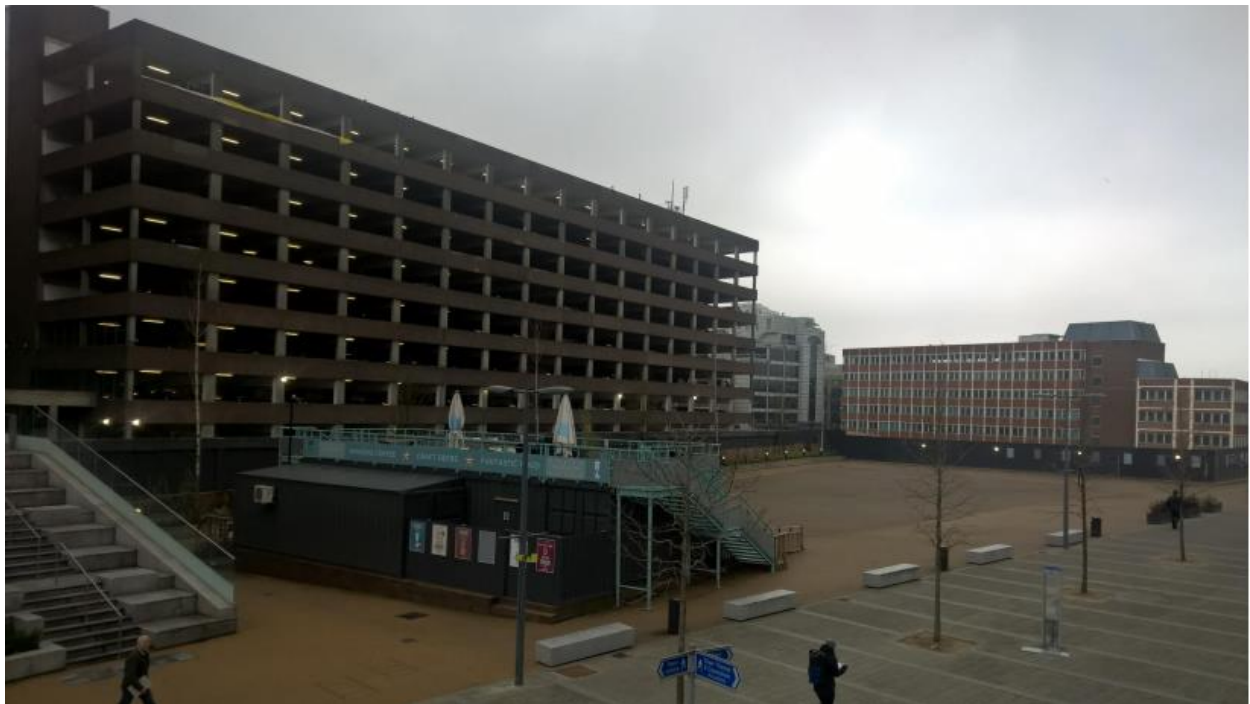


Figure 3: 2019 Existing NCP car park and Biscuit Tin



Figure 4: 2020 Relocation of Biscuit Tin



Figure 5: 2020 Phase 1 Enabling works site including existing retaining wall to NCP car park road



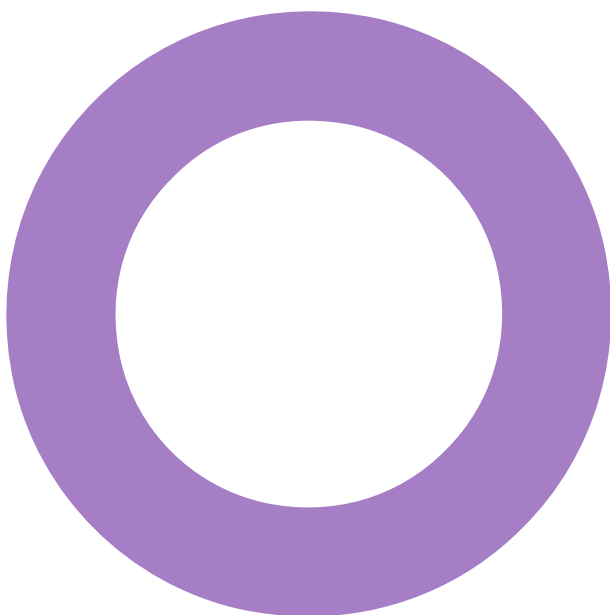
Figure 6: 2020 View of Phase 1 Enabling works site showing trees, lighting and other electrical items that are existing on the site

Station Hill.
Reading.
SH Reading Master LLP.

UTILITY & ENERGY INFRASTRUCTURE

UTILITY INFRASTRUCTURE DEMOLITION - SPECIFICATION

REVISION 00 – 16 MARCH 2020



Audit sheet.

Rev.	Date	Description of change / purpose of issue	Prepared	Reviewed	Authorised
00	16/03/2020	First Issue	GPP	IG	IG

This document has been prepared for SH Reading Master LLP only and solely for the purposes expressly defined herein. We owe no duty of care to any third parties in respect of its content. Therefore, unless expressly agreed by us in signed writing, we hereby exclude all liability to third parties, including liability for negligence, save only for liabilities that cannot be so excluded by operation of applicable law. The consequences of climate change and the effects of future changes in climatic conditions cannot be accurately predicted. This report has been based solely on the specific design assumptions and criteria stated herein.

Project number: 0512193

Document reference: SPEC-0512193-09-GPP-20200316-Utility Infrastructure

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1. Introduction

This specification provides a summary of Utility Services Disconnections required onsite for the enabling works of Phase 2. The site is situated in proximity of Reading train station, between Station Hill and the NCP Multi-storey car park.

The objective of the disconnection is to facilitate the safe removal of the meters and to isolate the existing utility services and external services within the site. Before stripping any services out, a survey needs to be carried out to identify the services and ensure any possible impact on other areas outside the work area.

The client has instructed Plowman Craven to undertake a topographic survey of the existing site. Extracts of the survey are included in the report appendices. Refer to the full information provided by the contract administrator.

This specification provides a scope of works to be priced and tendered by a Contractor to undertake and manage all necessary works to provide the disconnection back to the strategic main of the existing utility supplies and the removal of meters.

The Contractor shall produce a brief record manual with accurate AutoCAD drawings and high-resolution digital photographs for the employer, confirming the existing utility services ownership, disconnection, meter removal and isolation.

The description of the utility services within this document are provided for guidance only as it will be the Contractor's responsibility to determine the actual level of disconnection, removal and disposal works required based on a detailed survey and through liaison with the utility companies.

The Contractor is responsible for liaison with all utility companies (as applicable) regarding the termination / isolation / removal of supplies and diversion of services.

The Contractor shall be responsible for liaison with all utility companies for the duration of the works and to agree and obtain the approval from asset owners on the extent of disconnection works.

In addition, the Contractor shall take responsibility for progressing the negotiations with the statutory services providers regarding the disconnections and removal of any utility meters in the area. Ensure that all existing supplies are disconnected and removed (as agreed with the statutory service provider) prior to commencement of the excavation works.

2. Scope of Works

The scope of works to be undertaken by the Contractor are as follows:

- Liaise with both the utility and meter suppliers to arrange and carry out the service disconnection, meter removal and service isolation/protection back to the strategic main / service for the electricity, water and telecommunications services (if any) for the enabling works area.
- Ensure the disconnection of all utility services is made back at the point at which the service meets the strategic network outside of the site boundary and make any provisions required to permit safe excavation on site.
- Ensure any existing and retained services not proposed to be decommissioned are suitably protected in accordance with the asset owners' requirements.

- Carry out the works in such a manner to avoid and prevent any damage to other utility services in the area in accordance with H&SE safety recommendations.
- Support and protect all exposed services as necessary.
- Provide a works delivery programme for undertaking the works, which indicates the external services disconnections in a sequential operation.
- Issue a comprehensive set of Risk Assessments and Method Statements (RAMS) for approval by the Client team prior to commencing any intrusive works on site.
- Ensure all Utility Suppliers and Meter Operators are provided with the site postal address and full contact details of the site representative.
- The Contractor shall act as the single point of contact for all utility service/infrastructure matters with the Asset Owners.
- Carry out the management, co-ordination and installation of all works required for the external services disconnections and meter removals. The Contractor is responsible for the payment of the incumbent Asset Owner's costs for all disconnection, meter removals and isolation works in good time.
- Comply with CDM Regulation Requirements.
- Where necessary allow, arrange and carry out any further detailed surveys, either intrusive or non-intrusive to suit, that may be considered necessary over and above the detailed information provided in the appendices of this document.
- At an early stage after appointment, site investigations shall be made to establish that the services within the existing site boundary have correctly been identified and are planned to be disconnected and removed within the timescales of this contract.
- Correspond with each statutory authority regarding the disconnection and meter removal of each service and provide them with the information required to execute this requirement.

3. Utility Disconnections

3.1 Electricity

There is an existing 100A TPN electrical supply terminated in an electrical LV panel within a grey GRP enclosure in the Temporary Park area. This LV panel feeds the Temporary Park in-ground socket provisions for events, the lighting bollards and is used to serve the Biscuit Tin.

The contractor is to disconnect and strip out all the outgoing circuits fed from the LV panel and complete the below for the electrical meter:

1. For the remaining live supplies, establish the electricity supplier including account number, meter number and consumer name, together with MPAN (Meter Point Administration Number)
2. Establish the electricity meter operator and apply for a meter disconnection
3. Procure a disconnection notice form from the electricity meter operator and make the required application to the supplier's meter department for the removal of the meter. Make prompt payment of any charges and establish a meter removal date
4. Acquire a disconnection form from the electricity supplier and submit with the following information:
 - a. MPAN Number
 - b. Building/Site postal address, location map and site representative details
 - c. Layout drawing indicating existing services to be disconnected
 - d. Consumer name and account number
 - e. Meter removal date and reason for disconnection (i.e. demolition)
5. Make prompt payment of any electricity supplier charges and establish an isolation (after meter removal) date
6. Obtain and retain disconnection and isolation certificates/notices

Once the Electrical and Water meter have been removed, and the disconnection of the electrical and water connections back to the strategic mains are carried out, the contractor shall strip out the GRP enclosure.

3.2 Potable Water

There is an existing Thames Water 63mm water supply terminated in a Thames Water meter located within a grey GRP enclosure in the Temporary Park area.

For guidance purposes ensure the water utility disconnection for this service is carried out in the following sequence for disconnection, meter removal and isolation:

1. Establish the water supplier including account number, meter number and consumer name
2. Apply to the water meter operator for a meter disconnection
3. Undertake a survey of all water use fittings, photograph and record information for offset of future water infrastructure charges
4. Procure a disconnection notice from the water supplier and submit with the following information:
 - a. Site postal address, location map and site representative details
 - b. Layout drawing indicating existing services to be disconnected (potable water and/or drainage)
 - c. Consumer name and account number

- d. Meter readings and meter serial number
- e. Meter removal date and reason for disconnection (i.e. demolition)
- 5. Make prompt payment of any water supplier charges and establish a disconnection and meter removal date
- 6. Obtain and retain disconnection and isolation certificates/notices

3.3 Telecommunications

There is an existing BT service within a grey GRP enclosure in the Temporary Park area.

For guidance purposes ensure the telecommunication utility disconnection for each service is carried out in the following sequence for disconnection and isolation:

1. Establish the telecommunications provider from the appendices including account number and consumer name
2. Make the required application to the provider for the disconnection, removal and capping-off of their service and submit with the following information:
 - a. Building/Site postal address, location map and site representative details
 - b. Layout drawing indicating existing services to be disconnected
 - c. Consumer name and account number
 - d. Reason for disconnection (i.e. demolition)
3. Make prompt payment of any charges and establish a disconnection date
4. Obtain and retain disconnection and isolation certificates/notices

4. Standards

Applicable codes and standards to be applied as a minimum:

- Health and Safety Executive. Guidance Note GS5. Entry into confined spaces
- HSE – The Safe Isolation of Plant and Equipment
- RICS guidance and best Practice
- HSE Publications Li44 “Managing Health and Safety in Construction” and
- HSG47 “Avoiding Danger from Underground Services”
- Member of The Survey Association (TSA)
- Woking Council – Code of Construction Practice
- All necessary street works permits as required by Surrey and Woking Council
- All NJUG Guidance

5. General

The pricing of works shall include for the existing buildings and site boundaries specified.

The Contractor shall ascertain for themselves the exact scope of work including all material and plant to be supplied such that the Disconnection works is completed according to the agreed programme of the Contract.

It shall be the Contractor’s responsibility to visit the site, ascertain for themselves all the site constraints.

6. Appendices

Appendix A– Existing Utility Tracker

Appendix B – McGee Biscuit Tin services isolation works

Appendix C – Plowman Craven underground services survey

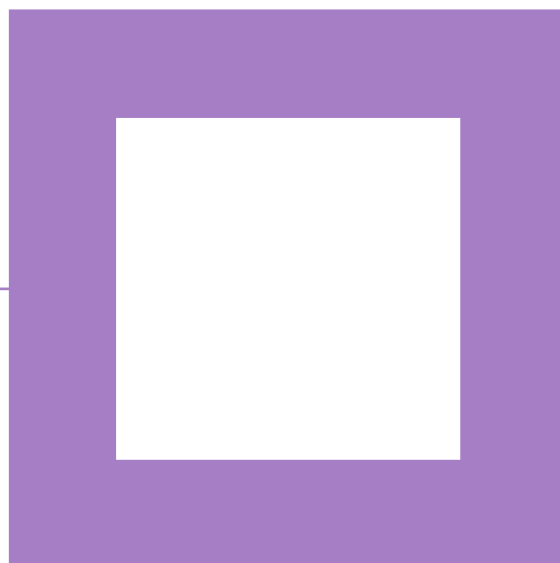


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England



05/12193 Station Hill. Phase 2 Enabling works Utilities Tracker. Rev 01 – 11 March2020

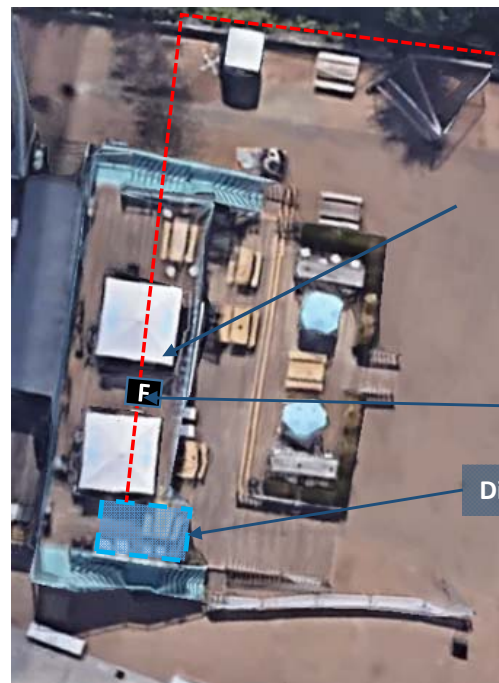
	Utility	Utility Enquiry Number	Load	Meter / Incoming location	Meter Reference	Supplier	Comment
Temporary Park	Elec		69kVA	In GRP enclosure on south side of park. Supplied from Foster Wheeler Substation. Serving the inground sockets, lighting bollards and the Biscuit tin.	TBC	TBC	Arrange isolation and disconnection prior to excavation.
	Gas		N/A	N/A	N/A	N/A	N/A
	Water		63Ø	From West Side of Station Hill. Check meter in GRP enclosure. Serving the Biscuit Tin	TBC	Thames Water	Arrange isolation and disconnection prior to excavation.
	BT		N/A	From West Side of Station Hill. Incoming ducts in GRP enclosure. Serving the Biscuit Tin	N/A	TBC	Arrange isolation and disconnection prior to excavation.
	Comms other		N/A	N/A	N/A	N/A	N/A

Biscuit Tin Utilities Disconnections February 2020

Disconnections – Water and Electrical were undertaken by the McGee M&E Services Contractor.



The electrical supply was terminated from the left hand electrical cabinet located in the event space (shaded red).



Foul drain

Disabled Toilet

Foul Outlet/Drain



Electrical & Water

[illegible]

Electro-detection techniques have been used in the location of underground services. The results are not infallible and trial excavations must be carried out to confirm service identification, position and particularly depths.

Although all reasonable effort has been made in searching available record drawings the completeness of the underground services information cannot be guaranteed.

Unless otherwise stated, drainage pipes are 100mm diameter.

This drawing has been produced for the purpose of the original commissioning agent. Ploverman Craven Limited will accept no responsibility for details that are subsequently found to be the consequence of undisclosed facts or that were obscured from view at the time of survey or that have been altered since the survey.

See www.plovermancraven.co.uk for full terms and conditions of contract.

[illegible]

Issue	Details	By	Date
A prov 1	Drawing incomplete and unchecked	AT	01/11/20
A	Final issue	PCJ	12/11/20

This drawing has been extracted from a revit model (drawing no. 40652-PC1.22.Z2-M3-G-0001-RM-S1-P01) constructed to an accuracy consistent with a presentation scale of 1/200, the plan is typically taken at above finished floor level - due to the revit extraction process, this may result in duplicate linework and missing detail - for any level/height information please refer to the original revit model

CLIENT

Black Bull Yard
24-28 Hatton Wall
London

PROJECT TITLE
Station Hill

Underground Services Survey

SCALE 1.200 @ A0

DATE OF ORIGINAL SURVEY 26th Oct 2018

DRAWING NO.	ISSUE
40652-01T-02	A

Plowman Craven House 2 Lea Business Park	115 Southwark Bridge Road London
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[illegible]

Electro-detection techniques have been used in the location of underground services. The results are not infallible and trial excavations must be carried out to confirm service identification, position and particularly depths.

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ISSUES & REVISIONS			
Issue	Details	By	Date
A prov 1	Drawing incomplete and unchecked	AT	01/11
A	Final issue	PCL	13/11

Unless otherwise stated, levels have been taken to finished floor surface
All quoted dimensions are in metres
Drawing units are metres

PRESENTATION SCALE 1:200 @ A0
DATE OF ORIGINAL SURVEY 26th Oct 2018
PC PROJECT No. 40652 CHECKED PC
DRAWING No. ISSUE
40652-01T-04 A

Email: post@plowmancraven.co.uk
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Tree Translocation - Station Hill, Phase 2 Enabling Works

Method Statement

Date: March 2020

Client Name: S H Reading Master LLP

Document Reference: WIE14788-100-TN-30-3-2-MS

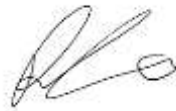
This document has been prepared and checked in accordance with
Waterman Group's IMS (BS EN ISO 9001: 2015, BS EN ISO 14001: 2015 and BS EN ISO 45001:2018)

Issue**Prepared by**

Richard Harris
Principal Consultant

Checked & Approved by

Joanne Bagley
Senior Associate Director



1. Introduction

- 1.1. Waterman Infrastructure and Environment Ltd. (WIE) have been instructed by S H Reading Master LLP to provide advice and guidance in relation to the translocation of 7 trees growing on the southern boundary of the Temporary Events Space, off Station Hill in central Reading (hereafter referred to as the 'Site').
- 1.2. SH Reading Master LLP are intending to submit a planning application for enabling works at the Site. The enabling works would comprise the removal of the existing Temporary Events Space and underlying material, understood to be demolition spoil generated by the past demolition of the Western Tower and associated retail units. As part of these works, there is a need to remove the trees located in a raised planting bed within the southern part of the Site. The trees are identified as trees T1 to T7 on **Drawing 1**. To avoid the total loss of the trees, S H Reading Master LLP have indicated that they would like to translocate the trees to an alternative location. This would either be into temporary planters so they can be utilised in the temporary landscaping of the site during the redevelopment or stored off-site (such as in a nursery), or alternatively planted off-site.
- 1.3. An arboricultural survey of the Site was undertaken by WIE on 1st October 2019 and the findings of that survey in relation to the trees to be translocated are summarised in **Table 1**.
- 1.4. At the time of the tree survey, trees T1 to T6 were found to be in a good structural and physiological condition. Tree T7 was found to be in poor condition showing advanced signs of stress and decline. As such it is recommended that T7 should not be considered for translocation and should instead be removed for reasons of sound arboricultural management.

Table 1: Summary of tree survey findings.

Tree Ref.	Species	Height (m)	Stem diameter (mm)	Canopy Spread (m)				First significant branch height / direction	Avg. Canopy Height (m)	Age	Physiological Condition	Structural Condition
				N	E	S	W					
T1	Silver Birch (<i>Betula pendula</i>)	10.0	145	1.5	1.0	1.0	1.0	2.0 (N)	2.0	SM	Good	Good
T2	Field Maple (<i>Acer campestre</i>)	8.0	150	1.5	1.5	1.5	1.5	1.5 (N)	1.5	SM	Good	Fair
T3	Silver Birch (<i>Betula pendula</i>)	10.0	145	1.0	1.0	1.5	1.0	1.5 (E)	1.0	SM	Good	Good
T4	Field Maple (<i>Acer campestre</i>)	8.0	145	1.5	1.5	1.5	1.5	2.0 (N)	2.0	SM	Good	Good
T5	Silver Birch (<i>Betula pendula</i>)	10.0	155	1.0	1.5	1.0	1.0	1.5 (W)	1.5	SM	Good	Good
T6	Field Maple (<i>Acer campestre</i>)	8.0	155	1.5	1.5	1.5	1.5	1.5 (E)	1.5	SM	Good	Good
T7	Silver Birch (<i>Betula pendula</i>)	10.0	140	1.5	1.0	1.0	1.0	2.0 (N)	2.0	SM	Poor	Poor

- 1.4 A check carried out on the 2nd October 2019 of the Reading Borough Council on-line registry¹ has indicated that none of the trees present on the Site are afforded protection through the provisions of a TPO and no part of the Site is located within a Conservation Area. Assuming that this position has not changed, there are therefore no legal constraints to the proposed works.
- 1.5 This Method Statement sets out a methodology which should be followed to provide the greatest opportunity for the trees to survive this translocation.

¹ Reading Council. (2019). TPO directory. Accessed 02/10/2019: <http://www.reading.gov.uk/trees>.



Photograph 1: View of the trees to be translocated.

2. Assumptions and Limitations

- 2.1. This Method Statement has been written on the assumption that the condition of the trees is still the same as that recorded during the tree survey. Should the condition of the trees have deteriorated since the tree survey was undertaken, they may no longer be suitable candidates for translocation.
- 2.2. Although the translocation of trees of this size is feasible, a significant amount of root volume will be lost in order to minimise the size of the temporary planter. The planting of the trees in a

temporary planter will also restrict future root growth, and whilst the methodologies set out in this Method Statement provide the best chance of success, as the trees are living organisms, there is no guarantee that the trees will survive.

- 2.3. It is considered that there is a greater potential for the long-term survival of the trees if they are relocated to a site where they can be given a permanent planting location in the ground.
- 2.4. Due to the risks associated with the project, it is recommended that the works are undertaken by a specialist contractor with previous experience of moving trees of similar sizes and in similar locations.
- 2.5. To maximise the chance of success, it is recommended that the works are undertaken during the winter months (September to March inclusive). Whilst it is possible to undertake the works outside of these months, the risk of failure increases. To mitigate this increased risk, a larger root ball may be required, levels of aftercare will also increase and costs are likely to be significantly higher.
- 2.6. The works should be timed to avoid the bird nesting season. If this is not possible, it will be necessary for an ecologist to undertake a nesting bird check immediately before (within 24 hours) of vegetation removal / relocation. If active nests are identified, some or all of the works may need to be delayed until the young birds have fledged,

3. Methodology

Translocation to Temporary Containers

- 3.1. In advance of the proposed work taking place, a meeting should be held on site between a representative of S H Master LLP and the appointed contractor to assess the extent of the root growth of the trees. It is recommended that an Airspade investigation of the root morphology is undertaken at this time.
- 3.2. To maximise the chances of success, the size of the root ball should be governed by the root morphology of the trees, and therefore the size of the temporary planters should be selected based on the size of the root ball, and not *vice-versa*. The meeting should be held far enough in advance of the proposed works to allow time for suitably sized planters to be secured or fabricated if necessary. For the purposes of this Method Statement, it is assumed that a root ball with a diameter of between 1.5 -2m will be sufficient. Assuming square planters will be used, it is therefore likely that they will need to have sides of approximately 2m.
- 3.3. If the trees are to be kept on-site, the root balls should be contained within an Airpot inside the temporary ornamental planters and therefore the planters need to be big enough to allow a small void between the outer edge of the root ball and the container sides. If the trees are to be transferred to a nursery, the trees can be stored in the Airpots with no need for an external container.
- 3.4. Airpots are designed to enhance healthy root development and maximise soil aeration. Additional oxygen in the growing medium leads to healthy bacteria and better nutrient release. At the same time the shape of the Airpot wall eliminates root circling and encourages the development of a mass of healthy fibrous roots. The additional roots mean better take up of nutrients and water leading to healthier and more robust trees.

- 3.5. The temporary planters should incorporate sufficient drainage to avoid the planting medium becoming waterlogged.



Figure 1: Trees growing in Airpots.

- 3.6. The depth of the root ball will also be assessed during the initial site visit, but again, it is assumed that a depth of approximately 0.6m should be sufficient.
- 3.7. Unless it needs to be retained for another reason, the retaining wall to the north of the trees should be removed prior to excavating the root balls. This should be undertaken using hand tools to avoid damage to the tree roots where it is adjacent to the root balls.
- 3.8. Care should be taken to avoid unnecessary damage to the tree roots during the excavation of the root balls. Therefore, the excavations required should be undertaken using an Airspade (a compressed air lance). This will allow the roots of the tree to be exposed without damage. They can then be pruned back to the outer edge of the root ball using an appropriate, clean and sharp pruning device (such as secateurs).
- 3.9. Once the root ball has been exposed and the roots cut, a hessian sheet should be slid below the root ball and used to wrap and secure it in place with temporary straps. The straps should be strong enough to support the weight of the tree when lifted, and should be wide enough to avoid cutting into the root ball.
- 3.10. The tree can then be lifted from its current position into the waiting container. The lifting device should be secured to the straps securing the root ball. Under no circumstances should the tree be lifted by straps attached to or through the trunk.
- 3.11. Once seated in the container, the hessian sacking should be removed and the Airpot wrapped around the outside of the root ball and secured². Any resultant voids should be back filled with a suitable compost.

² Airpots are supplied as flexible sheets which can be secured around the root ball.

- 3.12. Finally, a woodchip³ mulch should be laid over the top of the root ball and the root ball should be drenched with a suitable organic fertilizer and bio-stimulant to encourage a beneficial microbial environment in the soil.

Aftercare

- 3.13. Trees growing in the limited space available in a container are more susceptible to stresses caused by lack of moisture and nutrients when compared to open grown trees. Therefore, a significant level of after care is required to ensure the trees establish successfully and to limit the chances of the trees failing.
- 3.14. A suitable automated irrigation system should be installed in each container in order to maintain moisture in the soil. Small amounts of water should be applied frequently, and the system should be monitored to ensure that the levels of water being applied are adequate. Greater volumes of water will need to be applied during prolonged periods of hot weather.
- 3.15. Any remaining woodchip should be removed annually, and a top dressing of new compost should be applied to replenish nutrients lost from the soil. A new layer of woodchip mulch should then be applied.
- 3.16. A drench of suitable organic fertilizers should be applied approximately 4 times per year.
- 3.17. The Airpot should be removed approximately every 2-3 years and the roots pruned as necessary. A new Airpot should then be installed and any voids back filled with suitable compost.
- 3.18. The above will need to continue for as long as the trees are to remain in the containers.

Translocation to a Permanent Planting Site

- 3.19. The process for translocation to a permanent planting site is largely the same as for translocation to a temporary container, with the exception that the finished tree will be planted in the ground and not in a container.
- 3.20. The method for selecting the size of the root ball and lifting the trees is the same as set out above.
- 3.21. The trees should be planted in a suitable area which will provide sufficient space for the trees to develop to maturity and which provides sufficient rooting medium to allow adequate root growth. As a minimum this should be an area equivalent to at least the expected canopy spread of the tree at maturity (for both the silver birch and the field maple the canopy spread at maturity can be 5m in all directions). The trees should not be planted in an area prone to waterlogging or soil desiccation.
- 3.22. The trees should be planted in a planting pit equal in depth to the root ball and with a radius at least 1.5 times bigger than the radius of the root ball. The planting hole should be backfilled with the native soil excavated from the hole. If the planting pits are excavated mechanically, the sides and base should be forked over to allow drainage and root penetration.
- 3.23. The trees should be secured in place with a suitable below ground anchor system such as that shown in Figure 2.
- 3.24. As with the trees in containers, a woodchip⁴ mulch should be laid over the top of the root ball and the root ball should be drenched with a suitable organic fertilizer and bio-stimulant to encourage a beneficial microbial environment in the soil.

³ Bark should not be used as this can remove nutrients from the soil.

⁴ Bark should not be used as this can remove nutrients from the soil.

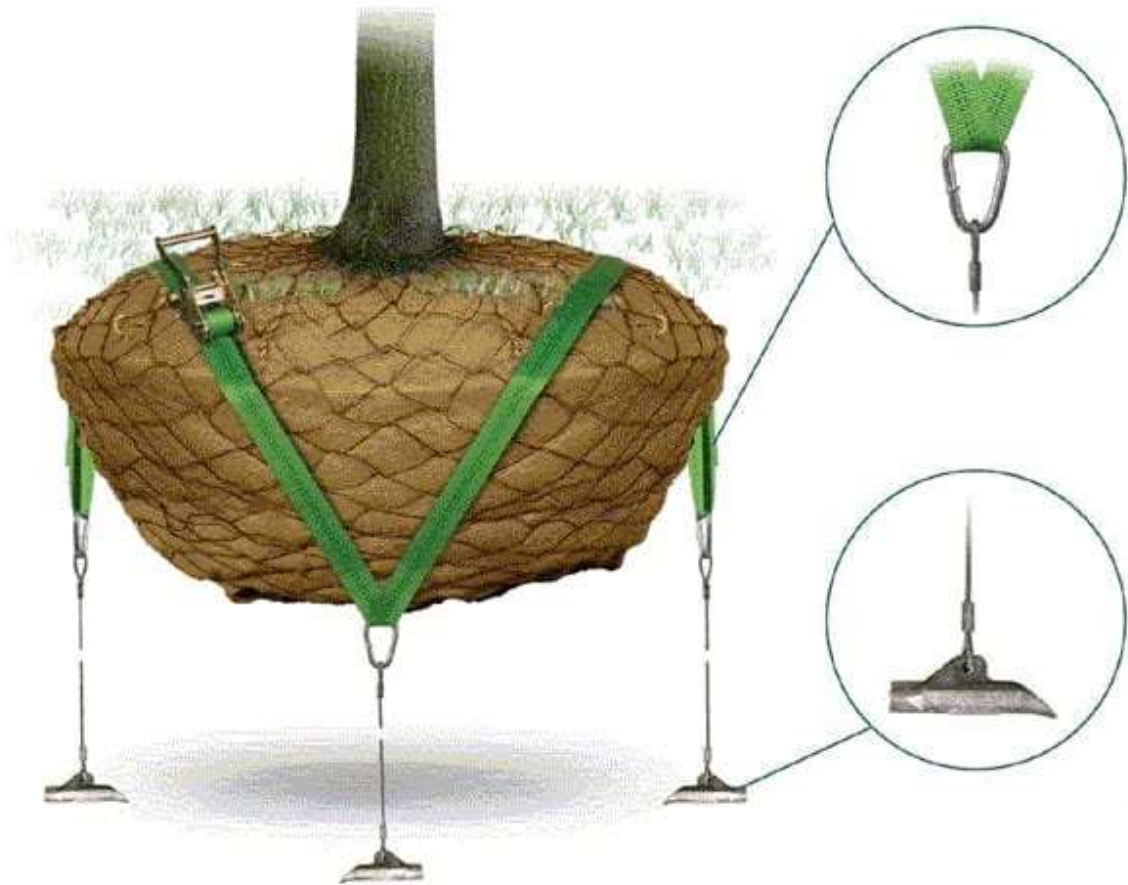


Figure 2: Underground anchor system.

Aftercare

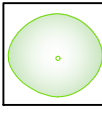
- 3.25. As with the container grown trees, a significant level of aftercare will be required to ensure successful establishment of the trees in their new permanent locations. The aftercare will be the same as that for the container grown trees with the exception of not needing to replace the Airpot and it will only be required until the trees are established and able to support themselves (approximately 3-5 years).

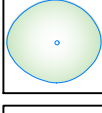


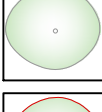
DRAWING 1 – TREE LOCATION PLAN

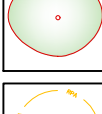
This drawing should not be scaled. Dimensions to be verified on site.
Any discrepancies should be referred to the Engineer prior to work being put in hand.

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Pickfords Wharf, Clink Street, London SE1 9DG 1 020 7928 7888 f 03333 444 501

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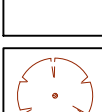
CATEGORY GRADE A
Trees of high quality
- 

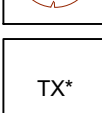
CATEGORY GRADE B
Trees of moderate quality
- 

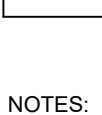
CATEGORY GRADE C
Trees of low quality
- 

CATEGORY GRADE U
Trees unsuitable for retention
- 

ROOT PROTECTION AREAS (RPA)
- 

INDICATIVE EXTENT OF
GROUPED FEATURE
- 

SITE BOUNDARY
- 

TREES REMOVED
- 

TX*
TREE NOT INCLUDED ON
TOPOGRAPHIC SURVEY.
POSITIONS ESTIMATED

NOTES:

ROOT PROTECTION AREA
Root Protection Areas are calculated in accordance with BS5837: 2012. The precise morphology and disposition of roots may not be fully reflected by these areas, particularly where there are hard standings, however they provide a good indication of potential root constraint.

THIS DRAWING SHOULD BE READ IN
CONJUNCTION WITH WATERMAN TREE
SURVEY REPORT

A01	11.10.19	PRELIMINARY ISSUE	MC
Rev	Date	Description	By

Amendments			
Project	STATION HILL READING		
Title	TREE SURVEY		
Client			



Office Address
Telephone & Fax numbers
mail@watermangroup.com www.watermangroup.com

Drawing Status	PRELIMINARY		
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Designed by	JS	Checked by	JS	Project No	WIE14788
Drawn by	MC	Date	OCTOBER 2019	Work Order No	100

Scales @ A1 work to figured dimensions only	1:500	100
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Publisher	Zone	Category	Number	Revision
WIE	SA	77	001	A01

