3.1 Site Enabling Works

Sequence & Methodology

1 A temporary hoarding has already been established around the site, as shown in the construction logistics drawings attached at **Appendix 01**.
2 A vehicle access point will be established on St Pancras Way at the northern end of the site, at which muck away wagons will be met by traffic marshal.
3 Hoarding works will be covered under a separate RAMS.
4 A buried service survey will be carried out using the existing service drawings.
5 An existing live Thames Water Middle Level Sewer runs adjacent to the site, beneath the adjacent plot (Plot A) 0- see section 2.4.
6 To avoid piling within the sewer exclusion zone the foundation design for Plot A is based on piled foundations outside of the exclusion zone, with a spanning raft solution to span over the sewer and support the columns from above, ensuring no loading is applied to the existing sewer.
7 An existing contiguous piled wall sits between Plot A and the application site (Plots B&C), and all piling operations are located outside of the zone of the Thames Water Sewer exclusion zone.

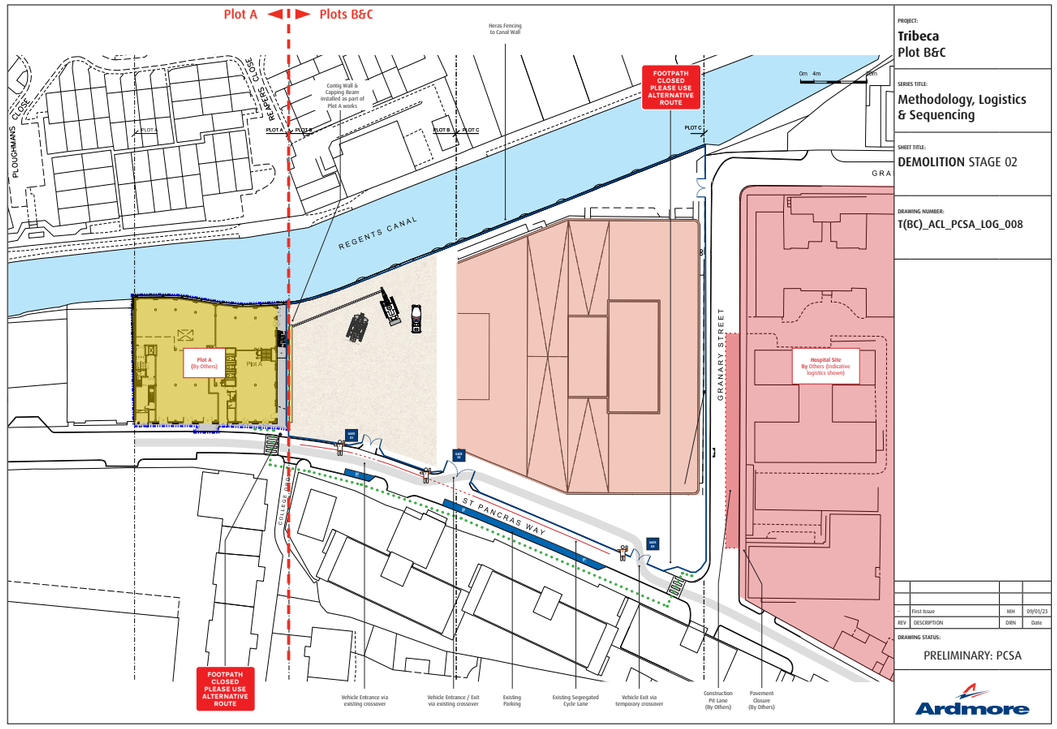

Figure 04: Site Logistics Plan, Stage 01

8 Other live services are not anticipated beneath the proposed building footprints, however permit to dig procedures will be followed as an additional level of control.
9 A cat and gen survey will be carried out by a trained and competent operative. With both the drawing recce and the cat and gen survey clear a permit to dig will be completed by the groundworks manager authorisation to break ground granted.
10 The existing tarmac will be broken up and an excavator used to carry out the initial reduced level dig to pile mat formation level
11 Refer to Section 3.5 – Excavation for detailed excavation procedure.

Environmental Controls

1 A watching brief will be maintained for any signs of contaminates.
2 Only authorized operatives are permitted into area.
3 Pedestrians are to stay to the segregated pedestrian routes
4 Plant will be delivered to site via the dedicated vehicle route entering site from St Pancras Way or Granary St.
5 The package manager is to be asbestos awareness trained and will conduct a watching brief throughout the operation.
6 All Muck away will be recorded on a waste transfer note.
7 All waste movements will be carried out by a registered and licenced carrier.
8 All waste will be moved to a registered and licensed end destination.

Plant and Materials

1 Excavators will be used for digging operations. Operator is to hold CPCS card in the correct category of excavator and undergo familiarisation with the machine and quick hitch prior to operating for work.
2 A traffic marshal will control movement of reversing and turning vehicles on site.
3 Should an excavator need to break parts of existing obstructions a hydraulic pecker will be attached to excavator and existing structure broken out as required.
4 If breaking is required a hearing protection zone will be established.
5 The drivers of all lorries / deliveries will hold current certification of competence for the vehicle concerned and will wear full PPE when entering the site.
6 Vehicles will enter through the Main site access gate and be directed to the necessary area where they will wait to be loaded or offloaded.
7 Only FORS registered WRRR vehicles are permitted to enter the project.

3.2 Pile Probing and Pile Mat Installation

These works include the following items:

1 Pile probing excavation to identify and remove site obstructions
2 Installation of high level pile mat

Sequence & Methodology

1 Ensure area of excavation and excavator works are clearly segregated from the site walkways and access routes.
2 Where required a physical barrier will be erected with clear signage stating danger moving plant.
3 Excavations of various depths will be dug as part of these works. Typically, these will be exploratory and will not require access.
4 Where access is required additional control measures will be put in place to prevent collapse (excavation to be battered back and stepped) and falls into excavations (use of tube and fit edge protection and signage positioned a minimum of 1m from excavation edge) to provide access and a safe place of work.
5 All works to be backfilled and stabilized at break times and end of shift. A competent person who has a proven record of experience in this work will supervise all works.
6 Excavations will proceed by the excavators at the specified locations on site as per the logistics plan.
7 Spoil will be stockpiled and materials stored adjacent to the excavation – but not close enough to load the bank of the excavation – at least 2m from excavation edge. After the assessment, spoil will be returned to the hole it came from or removed from site.
8 An exclusion zone will be formed along the canal wall elevation to avoid surcharging the Canal Wall with spoil soil
9 Imported material will be delivered to site via tipper vehicles. Piling mat material will be placed by excavators and compacted using a ride on roller (operated by a trained and competent person) as per design.
10 Pile mat will be compacted as per the design requirements.
11 On completion of the pile mat installation a piling platform certificate will be completed confirming its suitability for follow on operations. NOTE: A tell-tale layer of geotextile or similar will be installed and an additional 150mm of mat to allow for constant monitoring of the platform throughout the piling operation.
12 If the tell-tale layer is ever exposed this will act as a hold point. This will allow for repairs to take place to the mat.
13 This information will be duplicated into the piling RAMS so that attending excavators and piling operatives are fully aware of this requirement.

<u>Back filling and handover of areas within the installed piling mat where obstructions have been located and removed by excavator.</u>

14 If an obstruction is encountered whilst piling the piling contractor will immediately inform the main contractor of the situation.
15 This will allow for excavators to be deployed to remove the obstruction.
16 Rig will move from the area. NOTE: The piling mat certificate for this location will now be rescinded until area is correctly reinstated.
17 Exclusion zone barriers will be and commence excavation to remove the obstruction (NO operative is to enter an excavation where obstructions are being removed).
18 With the obstruction removed the area must now be re certified for use by the piling rig.
19 Excavated ground is to be assessed for back fill including type of material and degree of saturation.
20 Excavation will be back filled in layers and compacted to ensure a stable surface level to underside of the piling mat.
21 Reinstate piling mat as per the piling mat design ensuring that it is compacted at the required levels and Teram is installed at required levels.
22 On completion of the backfill and piling mat installation in the localised area of the obstruction the piling mat hand over procedure must be carried out again.
23 Dependant on the extent of the dig and the ground conditions encountered during the excavation (excessively loose, saturated or fine material) it may be require to re plate test the location.
24 Re issue the pile mat certificate for this location. Piling can now re commence.

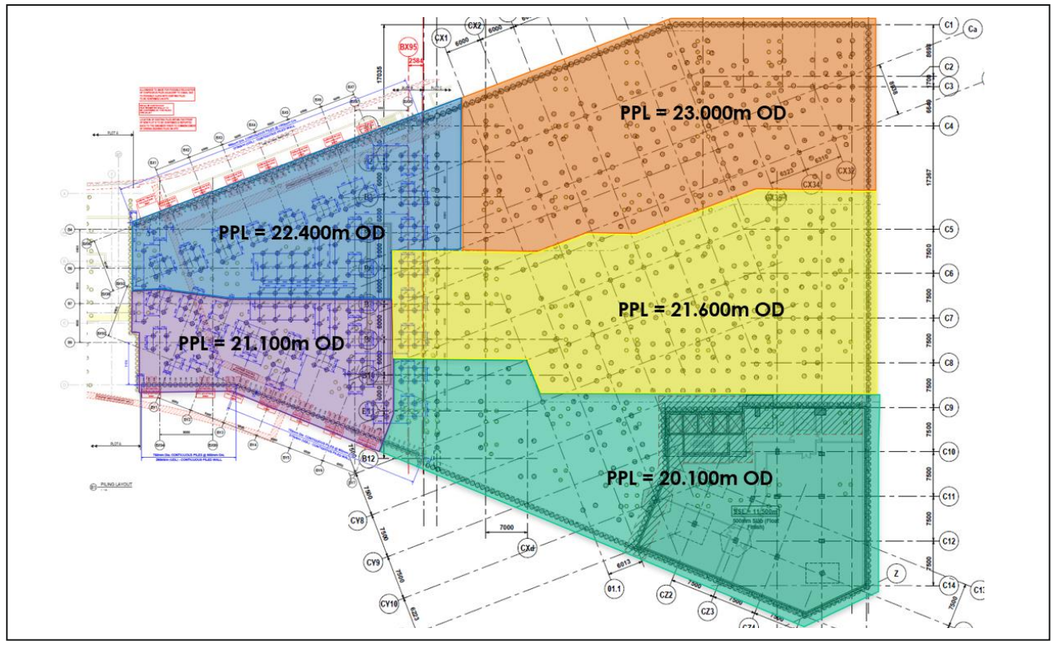

Figure 05: Indicative High Level Pile Platform Levels

Removal of Existing Site Obstructions

25 The proposed pile locations clash with a number of existing site structures, including an L-shaped concrete wall running parallel to the existing canal wall, as shown in **Figure 06**.
26 It is understood that this L-shaped wall provides no structural support to the canal wall.
27 In areas that this wall clashes with the proposed piling, local excavations will be carried out to expose the footings, which will then be cut and removed in sections and backfilled with the piling mat material, which will be reformed.
28 At no time will temporary excavations be deeper than founding level of historic masonry wall along the canal. This is to avoid undermining existing masonry wall as required by party wall award with CRT. This work is covered under a separate Party Wall agreement.

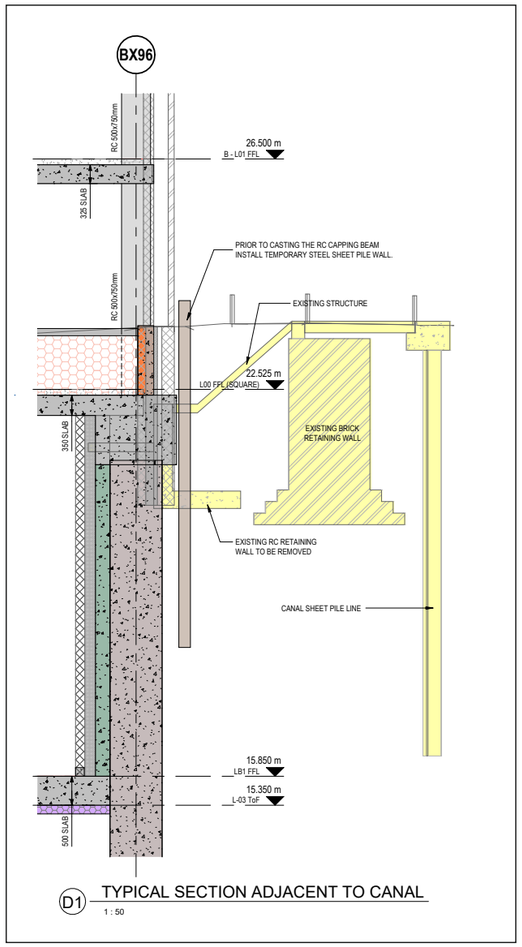

Figure 06: Section showing existing retaining wall to be removed.

Environmental Controls

1 A permit to dig certifying that the area is free of live services must be authorised by the package manager prior to any excavation works
2 Only authorized operatives are permitted in excavations.
3 All excavations will be battered and stepped to avoid the use of temporary works and shoring (when and if access is required)
4 All batters will be excavated at a 45º angle. If this is not achievable for any reason a temporary works design will be developed to establish a safe angle of batter or shoring system.
5 Access around the excavations will be restricted using a solid barrier at least 1m from the edge of the excavation.
6 Excavations are to be inspected daily and recorded weekly.
7 Pedestrians are to stay to the segregated pedestrian routes.
8 Plant will be delivered to site via the dedicated vehicle route entering site from St Pancras Way or Granary St.
9 Ground works manager is asbestos awareness trained and will conduct a watching brief throughout the operation. Contamination will be accessed throughout the operation.
10 Stockpiled material must be watered down to prevent any material escaping to atmosphere.
11 No material will be stockpiled near the canal wall in order to avoid surcharging the canal wall with stored materials
12 Stockpiles will be dampened and covered at end of shift.
13 The package manager will maintain a watching brief of contamination levels. If high levels of contaminant are encountered a hold point will be introduced.
14 The final excavation RAMS will be developed taking into account the data on contamination retrieved from this operation.

Plant and Materials

1 Excavators will be used for digging operations. Operator is to hold CPCS card in the correct category of excavator and undergo familiarisation with the machine and quick hitch prior to operating .
2 A traffic marshal will control movement of reversing and turning vehicles on site.
3 Should an excavator need to break parts of existing obstructions a hydraulic pecker will be attached to excavator and existing structure broken out as required.
4 If breaking is required a hearing protection zone will be established.
5 The drivers of all lorries / deliveries will hold current certification of competence for the vehicle concerned and will wear full PPE when entering the site.
6 Vehicles will enter through the Main site access gate and be directed to the necessary area where they will wait to be loaded or offloaded.
7 Only FORS registered WRRR vehicles are permitted to enter the project.

3.3 CFA Piling (High Level)

These works include the following items:

- Install Contig basement retaining wall, adjacent to Regents Canal / highways, comprising:
  - 232No. 750mm dia CFA piles up to 19.12m depth
  - 142No. 900mm dia CFA piles up to 21.15m depth

- Install Temporary Piles as part of temporary works design, comprising:
  - 24No. 900mm dia CFA plunge piles supporting steel columns at 16m depth
  - 17No. 900mm dia CFA buttress piles at 16m depth

As shown on the layout on **Figure 07**.

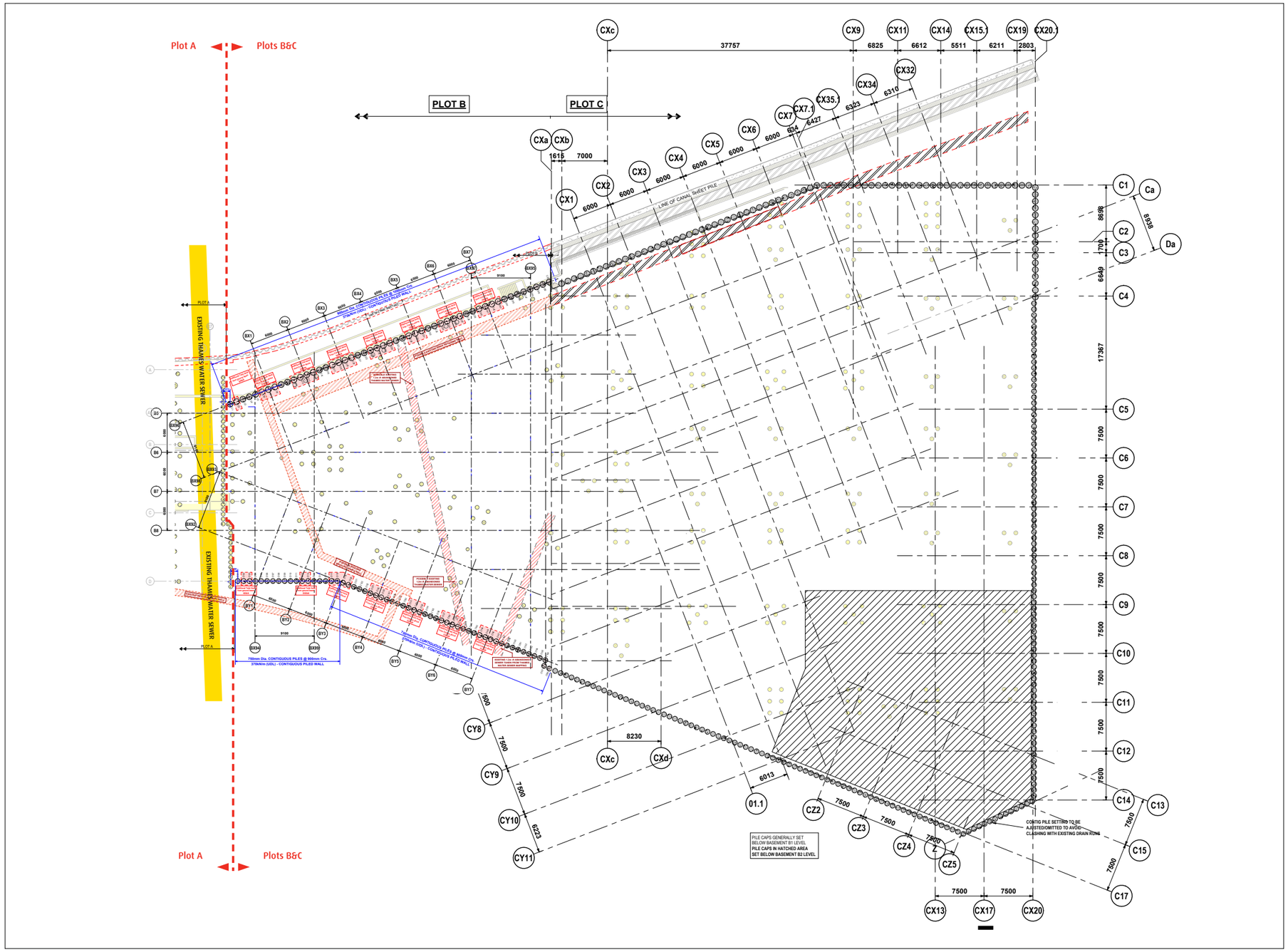

Figure 07: High Level PIling Layout

Sequence & Methodology

1 The piling rig will be tracked into position under the supervision of the banksman and the mast and auger plumbed vertical prior to drilling.
2 The rig will be set up to within 25mm of the setting out peg and the pile will be installed to the standard 1:75 for vertical tolerance.
3 Throughout the piling process a minimum 10-metre exclusion zone around the rig will be safeguarded by physical barrier or policed by the banksman to prevent access by other contractors
4 The flight auger will then bore into the ground to the required design depth.
5 The concrete wagon will be directed to the concrete plant under supervision of the banksman or pumpman. A suitable washout area agreed/provided by the main contractor will be used by concrete delivery wagons to prevent ground contamination.
6 A 5-metre exclusion zone will also be established around the full length of the concrete hose. No one should be stood over, or step over a hose during pumping.
7 As concrete is pumped into the pile position all personnel will maintain 5-metres clearance around the front of the rig to prevent injury from falling spoil being cleared by the auger cleaner. The rig driver is responsible for making sure that no spoil that could cause injury rides up the auger beyond the auger cleaner.
8 On completion the rig will track off the pile position under the supervision of the banksman and the excavator will clear the spoil and concrete overbreak. The top of the concrete checked for contamination.
9 The rig will then move to the next pile position. This should be a sufficient distance away so as not to disturb recently formed piles.
10 Reinforcement cages will be prefabricated and delivered to site pre-slung, and lifted into place by the attendant excavator. The weight of reinforcement carried by an excavator shall not exceed 1000kg.
11 Prior to the placement of any reinforcing and on completion of the pile bore the pile will be checked via a dip tape for depth, this is also to be checked again just prior to the pouring of concrete or placement of cages.
12 All cages will be checked against the drawing for compliance prior to drilling commencing for each day. Cages installed will be recorded on the Pile record sheet and issued to the Principal Contractor as a factual record of each days piling and quality control.
13 A set of 4 cubes will be taken daily and the cubes will be crushed and tested as follows: 7 day, 14 day, 28 day, and 56 day.
14 All cubes will be stored in a curing tank until collected by the testing house set at the required temperature of 20 degrees +/- 2 degrees.
15 Once all piles are at their final cut off level the piles will require be integrity tested
16 Any platform disturbances will be reinstated to the original specification including any reinforcing membranes and the maintenance sheet of the Working Platform Certificate signed off.
17 All completed piles are to be covered with a welded cover grid to ensure that no operatives can fall into the head of the pile.

Environmental Controls

1 Suitable fencing will be provided along all relevant boundaries of the sewer exclusion zone to prevent any accidental tracking of plant over the sewer, or augering within the exclusion zone
2 When working in reduced light the piling rig will operate under task / lighting, therefore the boundary fence will be designed to adequately block out any lighting that may be detrimental to neighbouring property.
3 The banksman will implement a 'Watching Brief' during auger extraction on piles constructed adjacent to site boundaries. This will ensure clean augers progress beyond the mechanical auger cleaner during extraction and prevent residual debris falling from height. Communication between banksman and rig operator will ensure that the auger extraction rate is suitable to the material build up.
4 Concrete hoses will be moved around site using a short leg chain or strop on the excavator lift point. Hoses will not be lifted in excavator buckets.
5 Work schedules will be planned so that rigs are not tracking over, or augering down close to freshly completed piles.

Plant and Materials

1 The specialist piling subcontractor will provide all necessary plant to carry out the works. All operatives using mechanical plant will have the required training and/or certification. The plant will include all necessary transport equipment, concrete compaction equipment and hand-held electrical tools.
2 A jet wash will be used for keeping all plant on site clean especially the static concrete pump.
3 A 2-tool compressor will be used to blow out and clean the concrete pump lines daily. This will be set in the same position throughout the job so will require a full bunded drip tray below to catch any accidental release of any fluids. This will only be used and operated by the pump operator. All airline joints will be whip checked.
4 A static concrete pump will be used, operated by a trained, competent operator.
5 The drivers of all lorries / deliveries will hold current certification of competence for the vehicle concerned and will wear full PPE when entering the site.
6 Vehicles will enter through the main site access gate and be directed to the necessary area where they will wait to be loaded or off-loaded.
7 Only FORS registered WRRR vehicles are permitted to enter the project.

A detailed Health & Safety Method RAMS, incorporating the control measures set out in this document will be prepared by the specialist piling contractor once they have been appointed.

3.4 Capping Beam & Temporary Works

Sequence & Methodology

1 The capping beam installation will be carried out concurrently with the high level piling, once a sufficient length of completed piles have been installed.
2 The completed piles will be trimmed to the correct level using hand-held (light) of plant mounted pneumatic (heavy) breakers or hydraulic pile croppers.
3 Piles should be allowed to cure for at least 5 days before excavation and trimming. For high cement replacement mixes the curing period is likely to be extended. Pneumatic breakers should not be used to penetrate the pile vertically as this is likely to split the pile shaft and shear the concrete below cut-off level. The tool should be worked from the pile perimeter towards the centre, prior to commencing work a HAV register shall be completed.
4 Heavy impact breakers should not be used on small diameter and lightly reinforced piles, or on piles in soft ground - risk of integrity test failures.
5 On completion of the pile trimming, shuttering will be placed along the line of the capping beam.
6 Steel rebar cages will be installed, with spacers placed to ensure that there is sufficient cover to the steel as per the specification.
7 Shuttering will be treated with a release oil to facilitate removal once concrete has set.
8 Concrete will be brought to site by truck mixers and delivered to the areas required, from the chute at the rear of the lorry if access is available, or pumped, or delivered via a concrete skip being lifted by a tower crane. If by tower crane, then a signed exclusion zone must be established, with signs “No Unauthorised Persons”, ”Work Overhead” etc.
9 Concrete will be compacted by use of a compressed air driven poker.
10 As part of the temporary works strategy, concrete corbels will be installed on the top or face of the capping beams to allow for tying in the temporary buttress piles, king posts and flying shores as shown indicatively on **Figure 08**

Detailed temporary works proposals are included at **Appendix 03**.

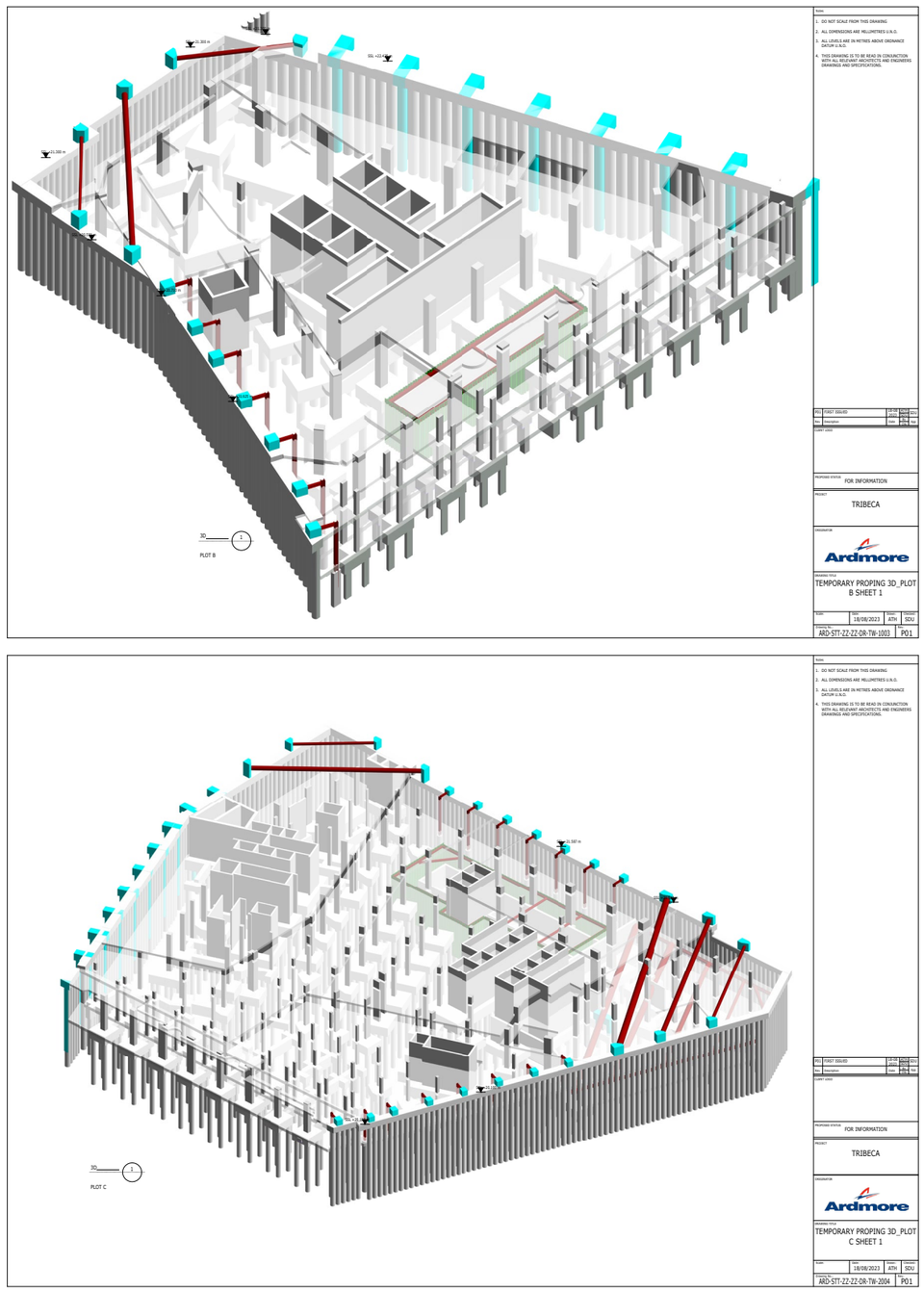

Figure 08: Indicative Temporary Works Strategy

3.5 Excavation

These works include the following items:

1 Bulk excavation to formation level

Sequence & Methodology

1 Ensure all monitoring is in place and operational, as set out in GPD monitoring strategy.
2 Complete cat and gen scan, utilise service drawings and acquire permit to dig.
3 Operatives will not be permitted to continue works if live services are identified and a safe system of work is not in place to work safely around live buried services.
4 EOD contractor will provide a watching brief throughout the operation.
5 If any UXO or suspect UXO is identified all works will cease. Control of the area will be handed to the EOD contractor and the area will be evacuated.
6 Excavations will be carried out using a 25-tonne 360º tracked excavator, operated by CPCS carded operator.
7 Areas of elevated contamination will be highlighted on the detailed RAMS drawings. When excavating these locations, a jet wash will be employed to suppress any potential dust therefore removing the risk of airborne particles at source. NOTE: If any unsuspected contaminants are encountered the dig will cease and the PPE / contamination protocols will be subject to further risk assessment.
8 Works will commence from the northern end of the project. 1nr excavator will commence the excavation / scrape of surface materials. This will be loaded into a forward tipping dumper (operated by a trained and competent operative) and removed to stockpiles prior to removal from site.
9 Piling mat will be scraped and stockpiled for reuse. No material will be stockpiled near the Canal Wall in order to avoid surcharging the canal wall.
10 Edge protection will be erected around any exposed excavation using base plates and tube and fit. Where wheeled plant or vehicles come into proximity with excavations bulk timbers will be installed to ensure they cannot travel past the area of risk.
11 If access into the excavation is required, then a combisafe step system or cut and blinded steps into the bank (complete with scaffold banister) will be installed.
12 Edges of excavations will be battered at a 45-degree angle at all times.
13 The procedure for loading the dumper will be:
   a) Dumper approaches loading zone.
   b) Operator to apply handbrake switch off and exit vehicle.
   c) Dumper loaded ensuring that it is not overfilled.
   d) Excavator arm to move away from dumper and excavator driver to give dumper driver the all clear.
   e) Dumper to move waste to stockpile NOTE: Dumpers must not drive onto stockpiles
14 A traffic marshal will direct the wagon onto the stockpile NOTE: stockpiles will be segregated into relevant waste streams as advised by waste removal provider
15 Muck away drivers will not exit their vehicles. If the need to exit is required, this will be under the supervision of the main contractor and drivers will adhere to the site PPE policy.
16 Excavator will load muck wagon. Wagon is to deploy cover canopy.
17 The vehicle will exit the site under the control of the traffic marshal vehicle.
18 As the wagons will be moving to areas on existing tarmac wheel washing is not anticipated however a jet wash will be on standby if required.
19 Wagons will adhere to a 'park up and switch off' policy to ensure that the noise profile of the operation is kept to a minimum.

Environmental Controls

1 A watching brief will be maintained for any signs of contaminates.
2 Only authorized operatives are permitted into area.
3 Pedestrians are to stay to the segregated pedestrian routes
4 Plant will be delivered to site via the dedicated vehicle route entering site from St Pancras Way or Granary St.
5 The package manager is to be asbestos awareness trained and will conduct a watching brief throughout the operation.
6 All Muck away will be recorded on a waste transfer note.
7 All waste movements will be carried out by a registered and licenced carrier.
8 All waste will be moved to a registered and licensed end destination.

Plant and Materials

1 Excavators will be used for digging operations. Operator is to hold CPCS card in the correct category of excavator and undergo familiarisation with the machine and quick hitch prior to operating for work.
2 A traffic marshal will control movement of reversing and turning vehicles on site.
3 Should an excavator need to break parts of existing obstructions a hydraulic pecker will be attached to excavator and existing structure broken out as required.
4 If breaking is required a hearing protection zone will be established.
5 The drivers of all lorries / deliveries will hold current certification of competence for the vehicle concerned and will wear full PPE when entering the site.
6 Vehicles will enter through the Main site access gate and be directed to the necessary area where they will wait to be loaded or off-loaded.
7 Only FORS registered WRRR vehicles are permitted to enter the project.

3.6 CFA Piling (Low Level)

These works include the following items:

- Main Bearing piles installed from low level, comprising:
  - 342No. 600mm dia CFA piles up to 25.41m deep
  - 750No. 750mm dia CFA piles up to 29.40m deep

As shown on the layout on **Figure 09**.

The low level piling will be carried out in accordance with the sequencing and control measures set out in Section 3.3.

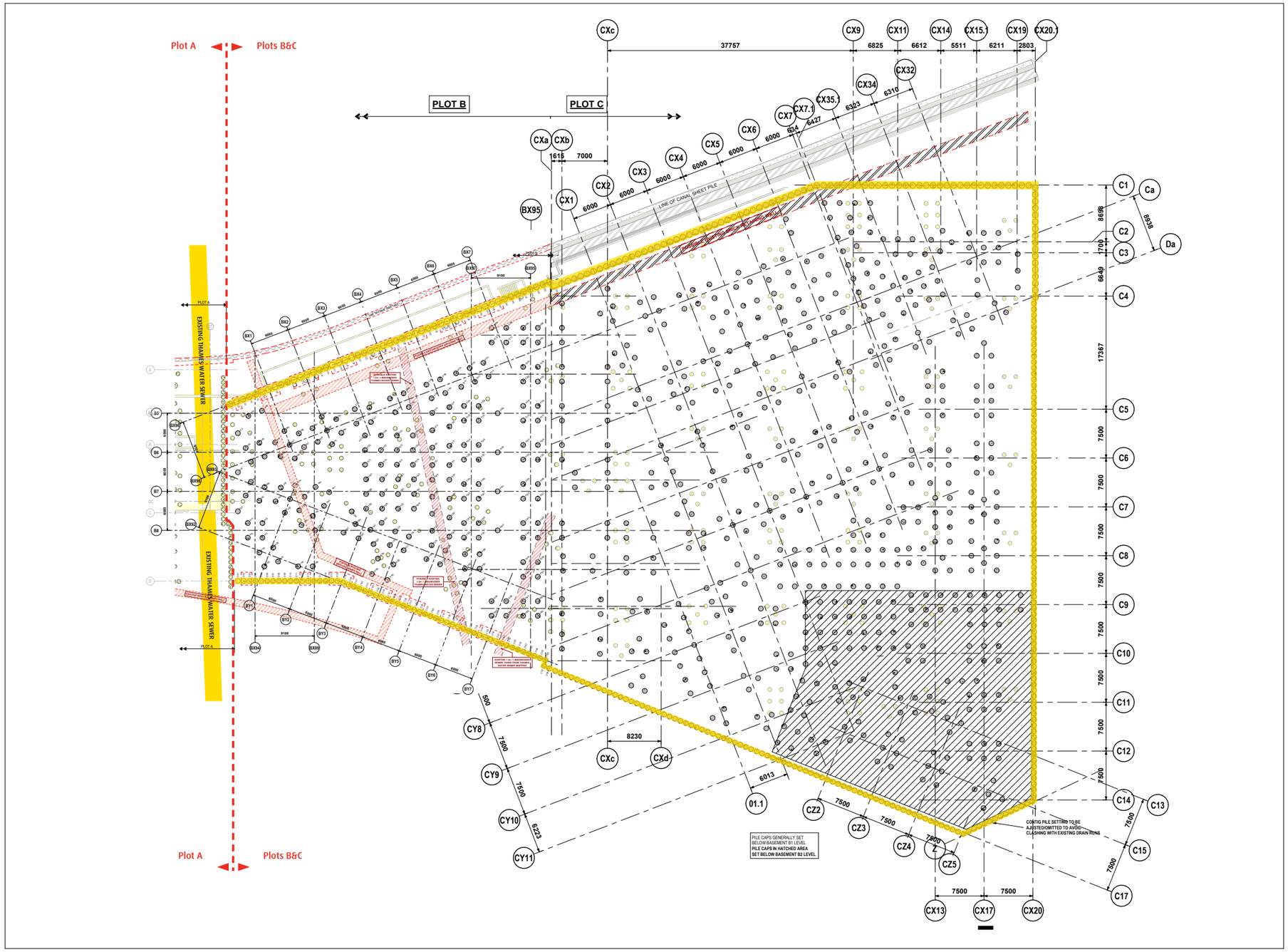

Figure 09: Low Level Piling layout

3.7 Install Pile Caps and Ground Beams

These works include the following items:

1 Local excavations
2 Breaking and trimming piles
3 Blinding and waterproofing
4 Construction of the pilecaps and ground beams.
5 Concrete placement

Sequence & Methodology

Local Excavations

1 General Sequence as Section 2.5
2 Using excavator excavate identified section to formation level with the edges of the excavation cut into a batter. Ensure batter does not undermine adjacent works. Piling mat will be scraped and stockpiled for reuse. As area is excavated the following rules must be applied:
   a) Erect edge protection as per attached common standard. Use edge protection with min 200mm overlap to ensure no gaps in the edge protection.
   b) Access to excavation is to be by Combisafe access steps installed at the earliest opportunity. Alternatively for short duration excavations steps can be cut by excavator installing a scaffold handrail and blinded with the base.
   c) Excavation is to be dug to a sufficient width to allow for a min 600mm walkway to the inside face (from proposed shutter location) and a 600mm walkway on the opposite edge. This will allow for operatives to safely access around beam for steel and shutter installation)
   d) Sufficient space at the end of the excavation area is to be excavated to allow operatives to pass from one side to the other without the need to climb onto the beam.
   e) All excavations will be planned in advance to assess and ensure safe access around and into, depth and batters required for each excavation.
3 Muck will be stockpiled for reuse where possible instead of muck away. Dumpers will transport muck. Excavator will place muck in bucket (Dumper driver to park and turn off dumper and to be of a clear of dumper whilst it is being loaded).
4 For mucking away, excavator will load muck away wagons which will be marshalled to site, park in designated loading area) and remove muck from site. Waste Transfer Note will be completed and filed.
5 Traffic marshals will be positioned as per the site logistics plan to control and coordinate traffic movement.

Pile trimming:

1 The piling contractor will use foam debonding material on the pile reinforcement to reduce the hazard from vibration tools when trimming. FFP3 dust masks are to be worn through the duration of pile trimming operation (face fit testing to be carried out) and high impact goggles for breaking and hot works cutting.
2 Operative to saw cut line of break using petrol saw using water to suppress dust levels.
3 Pile trimming will then be by mechanical/hydraulic CFA pile cruncher attached to an excavator to avoid HAV issues. Excavation to be clear of operatives. Cropper will be lifted onto the pile to break down and pile broken down.
4 No operative is to stand in the excavation / under the cropper whilst breaking and lifting sections of piles.
5 Once broken down and safe to enter excavation (rubble cleared), operatives will carry out additional cutting and trimming to neaten up the pile prior to cap formation using abrasive wheel and breaker/ scabbler.
6 Activity logging and job rotation will be carried out to ensure HAV trigger times are not exceeded.
7 In the event cropper cannot be used, (i.e piles not sufficiently debonded), the following will take place:
8 Piles require trimming. This will have to be carried out using SK12 hand breakers.
9 Operatives will enter the area of works via the dedicated walkway and excavated steps (as detailed above).
10 A compressor on drip tray will be positioned in the area this is to be a sufficient distance from the edge of the excavation so that exhaust fumes will not affect operatives. Whip clips to be attached and secured to hose connections.
11 Operatives will break down piles ensuring the following rules are adhered to:
   a) All operatives to wear FFP3 dust masks (face fit training will be completed).
   b) Operatives will use water to suppress dust.
   c) Operatives will ensure that the action level of the tool as highlighted below is not exceed. All operatives are to be briefed on this time (1hr 23mins) prior to start of works. This will be monitored by the section supervisor and operatives rotated.
   d) All operatives will be briefed on HAV and dust occ health briefings prior to commencement.
   e) Operatives will record trigger times on the HAV log.
   f) Debris will be placed in a 7 yard skip, boat skip or similar for removal from site.
12 As piles are broken and steel reinforcement is exposed rebar protection mushroom caps will be applied to ensure operatives working within area are adequately protected.
13 Ground will then be blinded as per method below in Concreting.

Steel Reinforcement Installation:

1 Reinforcement will arrive on site to suit the work activity and will generally be lifted by excavator and stored on site for installation. Storage and prefabrication areas are to be detailed on the site logistics story boards and confirmed as part of the site logistics meeting.
2 Prefabricate reinforcement and lift into position mechanically.
3 Where a mechanical lifting appliance is used then a specific lifting assessment will be developed for lifting the cages, this will identify lifting points, slings & personnel required for this operation
4 Prefabricated cages will be lifted at areas with structural integrity such as spanning bars and links and will be identified by yellow engineering paint. The integrity of this will be checked by the Steel Fixer Foreman prior to lifting.
5 Steel for in-situ cages will be lifted via mechanical means to as close to the installation point as possible.
6 This will then be installed by hand.
7 For in-situ works particular attention must be paid to the standard of the access into the excavation as there will be a requirement for operatives to walk steel into the excavation. This must be as previously detailed

using combisafe steps.

8 There will be no requirement to stand on prefabricated cages until back filled therefore removing the need for edge protection to be installed. If it becomes a requirement to stand on prefabricated cages / beams then edge protection will be installed using tube and fit passed through the steel reinforcement.

Concrete Placement

1 HOLD POINT: Prior to concrete placement, Pre pour check will be completed and signed off.
2 Operatives placing concrete will be briefed on Concrete Placement RAMS, however, below is a basic methodology of concrete placement to pile caps and ground beams.
3 Concrete pouring will be via a concrete skip, or from the bucket of a machine:

Placement from bucket of machine:

a) Concrete delivery vehicle will be brought into position via a dedicated haul road and positioned so that the shut can discharge into the bucket of the machine.
b) A polythene layer will be placed under the area where the chute discharges into the bucket to capture any possible overspill.
c) Discharge concrete into bucket.
d) Bucket will be employed to place concrete into excavation. NOTE: No operative to stand under bucket and bucket not to be lifted over any operative. Placement of concrete directly from delivery vehicle:
e) Stop blocks will be employed along the edge of the excavation in the location where the vehicle is to be backed on to (must be 1m back from edge)
f) Vehicle will access using dedicated routes and is to be reversed into position by a trained and qualified vehicle banksman Note: operatives must be out of excavation during the positioning of the vehicle
g) Barrier exclusion zone will be established around the wagon.
h) With vehicle in place the chute can be deployed and positioned over the place of pour.
i) Concrete will be discharged directly from chute into location of pour.

Placement of concrete by concrete skip:

a) Concrete skip will be lifted to required location where concrete wagon will discharge into it.
b) Barrier exclusion zone will be established around the wagon.
c) Skip will be lifted to required location with tremie pipe folded up and tied with tying wire.
d) Skip will be lifted by excavator. SWL of skip with concrete will be calculated by engineer and slinger and lifting equipment operator to be made aware of weight to ensure safe lifting. Smaller skip will be used for placing with excavator.
e) Pipe will be positioned and skip will be discharged using tag line pulled by concrete operative to location of pour.

4 Vibration of concrete:

a) Operatives will use electric pokers to sufficiently vibrate concrete.
b) All concrete operatives will wear the following additional:
   i) Disposable overalls.
   ii) Impervious gloves
   iii) Wellington boots (overalls not to be tucked in boots).

Environmental Controls

1 Loading / unloading area to be excluded from all unauthorised personnel with physical barriers.
2 Traffic management route to be established with vehicle routes segregated from pedestrian walkways.
3 Laydown areas for incoming materials and equipment are to be pre planned to ensure high standards of housekeeping and materials management is maintained.
4 Access routes will be established both to laydown / storage areas and within them to allow for access to individual loads
5 All plant operations to be excluded from foot traffic by means of netlon/barriers and crossing points.
6 Ensure barriers and signage around excavations as per common standard to prevent falls into excavations
7 Ensure safe access in egress in and around excavations as per common standard
8 Dewater as required to prevent operatives working in standing water. Where required as a secondary means of protection, use wellington boots.
9 A watching brief will be maintained for any signs of contaminates.
10 Only authorized operatives are permitted into area.
11 Excavations are to be inspected daily and a recorded weekly
12 Pedestrians are to stay to the segregated pedestrian routes.
13 Plant will be delivered to site via the dedicated vehicle route entering site from St Pancras Way or Granary St.
14 All Muck away will be recorded on a waste transfer note.
15 All waste movements will be carried out by a registered and licenced carrier.
16 All waste will be moved to a registered and licensed end destination.
17 All waste movements will be recorded on the SG WDT (waste data tool).

Plant and Materials

1 Excavators will be used for digging operations. Operator is to hold CPCS card in the correct category of excavator and undergo familiarisation with the machine and quick hitch prior to operating for work.
2 All lifting equipment will be certificated, inspected at the start of each day and a weekly inspection recorded on the site LOLER form
3 All slings and strops will be in good order and slinging will be as per the main contractor's lifting assessments (Schedule of common lifts) will be carried out for each load. Lifting accessories will be certificated, inspected prior to each use and a weekly inspection recorded on the LOLER form.
4 All moving vehicles are to have an operational flashing beacon.
5 All plant will be operated by trained and competent operatives. CPCS cards will be collected and reviewed prior to commencement of works.
6 All vehicle movements will be accompanied by a trained and competent vehicle banksman.
7 ONLY fully automatic quick hitches are attached to the type of excavator in use for this operation.
8 Roller is to be complete with ROP.
9 If dumpers are to be employed these will be complete with ROP. NO dumper is to drive onto stockpiles at any time.
10 Hydraulic pile cropper will be used to break piles hydraulically. This will be attached to an excavator using the lifting chains with the equipment. Thorough exam cert will be required for the chains. No operatives to be in the area when this is being carried out. Barrier exclusion zone to be established.
11 Piles to be trimmed and concrete to be broken by hand are to be damped down. FFP3 dust masks are also to be worn to prevent inhalation of silica dust. Face fit testing is to be carried out. Noise levels exceed 85dB so hearing protection (ear defenders) are to be worn. In addition, high impact goggles are to be worn for eye protection.
12 When cutting steel with a petrol saw, the noise levels exceed 85dB so hearing protection (ear defenders) need to be worn. In addition, high impact goggles are to be worn for eye protection.
13 Operatives will handle steel and shutters. Manual Handling instruction is given as part of the PIMS briefing. Operatives are not to manually handle more than they are capable and inform their supervisor if they cannot safely lift equipment.
14 Waterproofing will be stored in the designated storage areas on site. When cutting to fit, this will be done by Stanley knife. Operative knife is to have retractable blade to prevent injury.
15 Concrete placement will be as per above methods. Smaller skip will be used for lifting concrete with excavator. Weight of skip and load to be calculated by engineer and confirmed to foreman to ensure SWL of excavator is not exceeded.

Ardmore

APPENDIX 01:

SITE LOGISTICS PLAN

Heras Fencing
to Canal Wall

PLOUGHMANS CLOSE

REAPERS CLOSE

PLOT A

PLOT A | PLOT B

PLOT B | PLOT C

PLOT C

FOOTPATH CLOSED PLEASE USE ALTERNATIVE ROUTE

REGENTS CANAL

0m 4m 20m

GRA

Plot A
(By Others)

Plot A

GRANARY STREET

Hospital Site
By Others (Indicative logistics shown)

GATE 01

GATE 02

P

COLLEGE GROVE

ST PANCRAS WAY

Vehicle Entrance via existing crossover

Vehicle Exit via existing crossover

Existing Parking

Existing Segregated Cycle Lane

Construction Pit Lane (By Others)

Pavement Closure (By Others)

PROJECT:

Tribeca
Plot B&C

SERIES TITLE:

Methodology, Logistics & Sequencing

SHEET TITLE:

DEMOLITION STAGE 01

DRAWING NUMBER:

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Ardmore

Heras Fencing
to Canal Wall

Contig Wall &
Capping Beam
installed as part of
Plot A works

FOOTPATH
CLOSED
PLEASE USE
ALTERNATIVE
ROUTE

0m 4m 20m

PLOUGHMANS CLOSE

REAPERS CLOSE

PLOT A

PLOT A PLOT B

PLOT B PLOT C

PLOT C

REGENTS CANAL

GRA

GRANARY STREET

Plot A
(By Others)

Plot A

Hospital Site
By Others (Indicative
logistics shown)

GATE 01

GATE 02

GATE 03

COLLEGE GROVE

ST PANCRAS WAY

P

FOOTPATH
CLOSED
PLEASE USE
ALTERNATIVE
ROUTE

Vehicle Entrance via
existing crossover

Vehicle Entrance / Exit
via existing crossover

Existing
Parking

Existing Segregated
Cycle Lane

Vehicle Exit via
temporary crossover

Construction
Pit Lane
(By Others)

Pavement
Closure
(By Others)

PROJECT:

Tribeca
Plot B&C

SERIES TITLE:

Methodology, Logistics & Sequencing

SHEET TITLE:

DEMOLITION STAGE 02

DRAWING NUMBER:

T(BC)_ACL_PCSA_LOG_008

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