



CONSTRUCTION SURFACE WATER MANAGEMENT PLAN



Site Name: St Anns Hospital Redevelopment, St Ann's Road, London, N15 3TH

Contractor: Hill Partnerships

Reference Number: CSWMP001

Planning Application No: HGY/2023/2351

Prepared by: D Willicombe

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1.0 INTRODUCTION & AIM

The requirement for a Construction Surface Water Management Plan (CSWMP) is based on the duty to ensure that surface water quality and quantity is managed throughout the construction process to mitigate impacts off site.

This Construction Surface Water Management Plan (CSWMP) has been prepared to support our CEMP and CLP and to demonstrate how we will manage surface water to assist in the discharge of Planning Condition 11 (Planning Reference: HGY/2023/2351) which requires details on how surface and storm water will be managed during construction. This is a large development of 239 plots within this phase of the works. There is a mix of RC Frame flat blocks and 21 terrace houses within this phase of the works.

2.0 SITE DETAILS & CONCLUSIONS FROM FLOOD RISK ASSESSMENT

The Site is a former hospital that is located off St Ann's Road, the London Borough of Haringey, N15 3TH and is centred on grid reference 532340, 188545.

The Scheme includes the demolition of existing buildings and construction of up to 995 new residential dwellings with associated access roads, parking, and soft landscaping. The existing seven heritage buildings are to be retained together with the addition of affordable workspaces. There is a Site of Importance for Nature Conservation (SINC) to the south of the Site and a public garden named the 'Peace Garden' towards the centre.

The EA's indicative floodplain map shows that the Site is located in Flood Zone 1 which is defined as land that has a less than 0.1% annual probability of river or sea flooding. Developments in this flood zone do not have any restrictions, provided they do not increase the risk of flooding elsewhere. The Site is considered to be at low risk of flooding from other sources including groundwater, surface water and overland flows, and reservoirs.

The surface water drainage is proposed to connect to the public surface water sewer in St Ann's Road via an existing connection and discharge from the entire site will be restricted to 29.2 l/s with attenuation provided by swales, a detention basin, attenuation tanks and bioretention tree pits. The system has been designed to accommodate the 100 year + 40 % climate change storm events. The proposals also include green roofs, rain gardens and permeable paving.

A new foul water connection to the public sewer in St Ann's Road is proposed to serve the development. Thames Water have confirmed that there is sufficient capacity to receive the peak foul water flow rate.

The Scheme is considered to comply with key Development Plan policies, including London Plan policies SI12 (Flood Risk Management), SI13 (Sustainable Drainage) and policies DM24 (Managing and Reducing Flood Risk), DM25 (Sustainable Drainage Systems), DM26 (Critical Drainage Areas), DM27 (Protecting and Improving Groundwater Quality and Quantity) and DM29 (On-Site Management of Wastewater and Water Supply) of LBH's Development Management DPD.



3.0 ROLES & RESPONSIBILITIES

This section identifies the key roles and responsibilities for the scheme.

Role	Contact	Company Name & Address	Contact No & Email	Key Responsibilities
Project Director	Damon Willicombe	Hill Partnership	07734 848900	Site management
Site Manager	Rob Dray	Hill Partnership	07789 876124	Site management
Technical Manager	Dennys Suarez	Hill Partnership	07860 954707	Technical management
Technical Manager	James Meehan	Hill Partnership	07745 539248	Technical management

4.0 MANAGING SURFACE WATER DURING CONSTRUCTION

4.1 OVERVIEW

The site currently is a brownfield site with its own surface water system in place. This surface water system eventually discharges to the local Thames Water (TW) surface water sewer within St Anns Road.

The temporary surface water strategy during construction prior to the permanent surface water scheme is to utilise the existing surface water network and outfall to the local TW surface water sewer.

As the construction works themselves will not increase the amount of hardstanding as part of the works, its proposed that no formal surface water attenuation is provided during construction phase, however it's important that the site manages contamination risks associated with construction works in line with best practice, as well as managing any low spots created as part of the works to mitigate against surface water flooding.

Therefore, the following temporary surface water principles will be followed:

Silt traps and catchpit manholes will be used to ensure the management of silt/debris are provided prior to discharge to the local TW sewer network.

Soft landscaping will be used to manage runoff where possible, as this is a sustainable way of managing surface water.

Gullies are provided in areas of low spots to connect to local surface water network, to avoid any local surface water flooding.

A full maintenance and management strategy will be in place to ensure silt traps/catchpit manholes are regularly cleaned and maintained.

4.2 PROGRAMME OF WORKS

During Construction Works - Before the new drainage system is installed, there is minimal potential for uncontrolled surface water run-off from the site due to the extent of soft landscaping within the scheme.

To mitigate against surface water flooding during the early stages of construction activities, the proposed surface water strategy comprises of utilising the existing pipework for areas outside of the current phase and for works within the phase they will be managed locally until the permanent drainage and attenuation systems are in place.

The drainage and roads are planned as the first activity to allow the permanent surface water systems to be in place and working prior to commencement of the main construction works.

Once these are in place, they will control water runoff via the use of the attenuation tanks located in the building courtyards, new swales within the Peace Garden and attenuation pipework within the roads. There will be controlled discharge to the TW network via a hydro brake within the outfall manhole. Silt guards will also be installed to prevent silt entering the TW network.

Should any works lead to temporary excessive surface water ponding, submersible pumps are within the contractor's standard equipment list and available at short notice to disperse any ad-hoc ponding. Measures to control surface water will be reviewed regularly and could include the use of soil bunds, straw bales, swales, trapped road gullies.

4.3 INSTALLATION OF NEW DRAINAGE SYSTEM

Our appointed groundwork contractor is aware of the importance to install permanent drainage, and this is reflected within the roads and sewers programme. The initial construction works will install the drainage network, attenuation tanks, swales and in the unlikely event of on-site flooding, temporary gullies can be connected into an established system. The installation of the surface water drainage network will therefore be undertaken at the early stages of the construction project, which will enable the capture of surface water run-off.

4.4 PAVEMENT INSTALLATION

The pavement will be constructed up to subbase and base level during the construction period and then surfaced at completion. This will allow natural soakaway and thus not utilising the surface water systems at this time.

4.5 EMERGENCY SPILL KITS

Spill kits will be positioned on site and will be relocated to be adjacent to any diesel/oil storage and at a close distance to any concrete wash out/wheel wash areas as the development progresses.

Operatives having access to the kits will have received training on the use of the spill kits to contain any type of potentially environmentally harmful spill.

4.6 PREVENTION OF POLLUTION FROM PLANT AND MACHINERY

Hill promote a clean working environment to avoid pollution. Site diesel tanks are bunded and lined. Drip trays are used on all static plant and machinery to prevent leakage/contamination of the ground. Emergency spill kits are standard on site and operatives having access to the kits will have received training on their use to contain any type of potentially environmentally harmful spill.

To prevent materials leaking from static plant, such as pumps and generators, contaminating the

ground and being washed into the existing course, all static plant will be placed on drip trays.

Fuel tanks on site are bunded and lined. The tanks are protected from vandalism and unauthorised interference and turned off and locked when not in use.

Spill kit locations have been covered earlier in the document but will include vehicle refuelling and plant parking areas.

4.7 WHEEL WASHING

Wheel washing of all vehicles leaving the site will take place. A specific will be set up with a sufficient run off on hard ground to the exits point of the site.

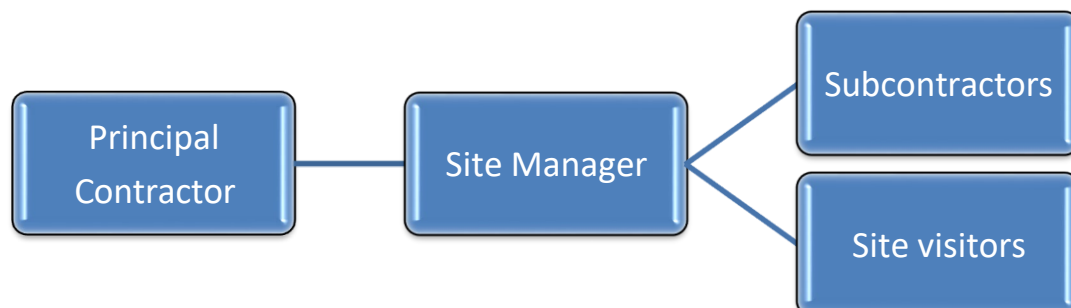
Wheel washing will be via a jet wash and a filtered soakaway will be set up to allow water to naturally drain away. The filtration system will be monitored, and all sediment emptied as required. Water will also be recycled from the soakaway for re-use washing wheels.

4.8 COSHH – Chemical Control Measures and Pollution Prevention

There are designate storage areas for plant, materials, waste, flammable substances. Safety Data Sheets and pollution prevention measures will be reviewed and discussed with site workers. Control equipment (PPE) will be provided.

4.9 RESPONSIBILITIES & MONITORING

During the construction phase, Hill Partnership will be responsible for setting the control systems in place, with regular monitoring and with a 24hr on call emergency contact. This is in accordance with the CDM regulations.



Monitoring of the system during construction will continue and silt/pollutants removed as appropriate to ensure a clean flow of water is maintained.

Any sediment/pollutants removed will be disposed of to a designated waste management facility.

The Met Office Weather Matrix will be used as a reference tool for weather warning impacts and to allow planning for all eventualities. Site will be made aware of the warning colours (yellow, amber, and red) and procedures to follow based on the warning status.

Warning impact matrix

Very likely				
Unlikely				
Very low impact				High impact

The site will monitor future weather however the GOV.UK flood warning alert does not cover the site postcode as it is not an area of risk.

4.10 COMPLETION

Before final completion, the new drainage system will be inspected, and CCTV surveyed to ensure any debris has been removed, so the drainage system can function as designed.

Any remedial works will need to be carried out in line with the maintenance period of the buildings unless they pose a flood risk and will need to be resolved immediately.

5.0 WEATHER ALERTS (Surface Water Flood Risk)

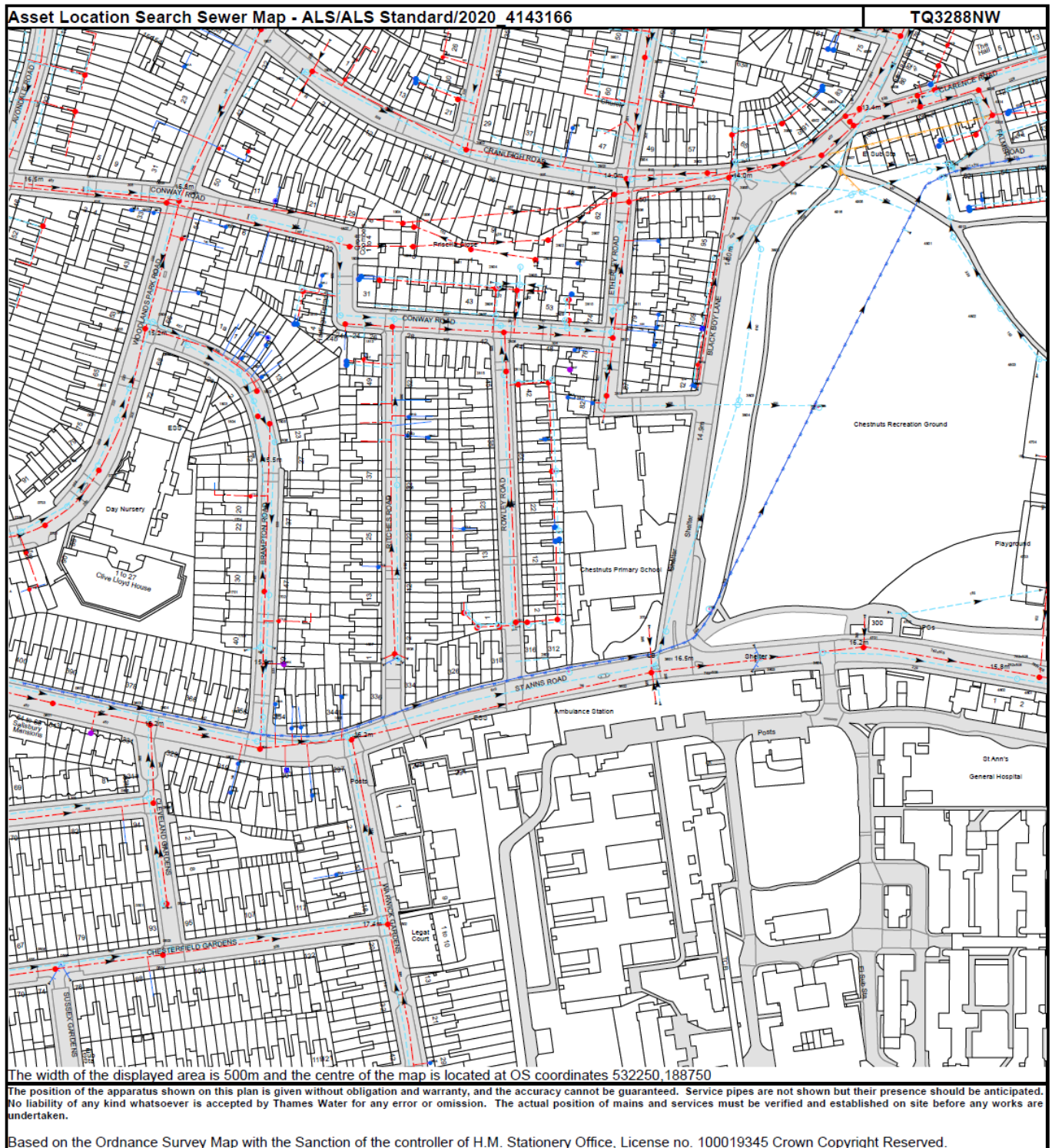
Project Manager and Site Manager will sign up to the Met Office weather warning system
<https://www.metoffice.gov.uk/public/weather/warnings>

Below is the site action plan of what will be completed when weather warnings are issued to allow site to deal with any excessive rain fall:

Alert Level	Definition	Action	Responsibility
Yellow: Be Aware	Yellow warnings can be issued for a range of weather situations. Many are issued when it is likely that the weather will cause some low- level impacts, including some disruption to travel in a few places. Other yellow warnings are issued when the weather could bring much more severe impacts to many people but the certainty of those impacts occurring is much lower. It is important to read the content of yellow warnings to determine which weather situation is being covered by the yellow warning.	• Basin/ditches/bunds to be checked. • Drains and gullies checked. • Pumps and hoses checked. • Check filters	Site Manager.
Amber: Be Prepared	There is an increased likelihood of impacts from severe weather, which could potentially disrupt your works plans. This means there is the possibility of travel delays, road and rail closures, power cuts and the potential risk to life and property.	• Ensure pumps and hoses ready for use. • Run off monitored. • Water levels monitored. • Bunds and pumps to be used if required	Site Manager.
Red: Take Action	Dangerous weather is expected and, if you haven't already done so, you should take action now to keep yourself and your works force safe from the impact of the severe weather. It is very likely that there will be a risk to life, with substantial disruption to travel, energy supplies and possibly widespread. You should avoid travelling, where possible, and follow the advice of the emergency services and local authorities.	• Ensure pumps and hoses ready for use. • Run off monitored. • Water levels monitored. • Bunds and pumps to be used if required	Site Manager

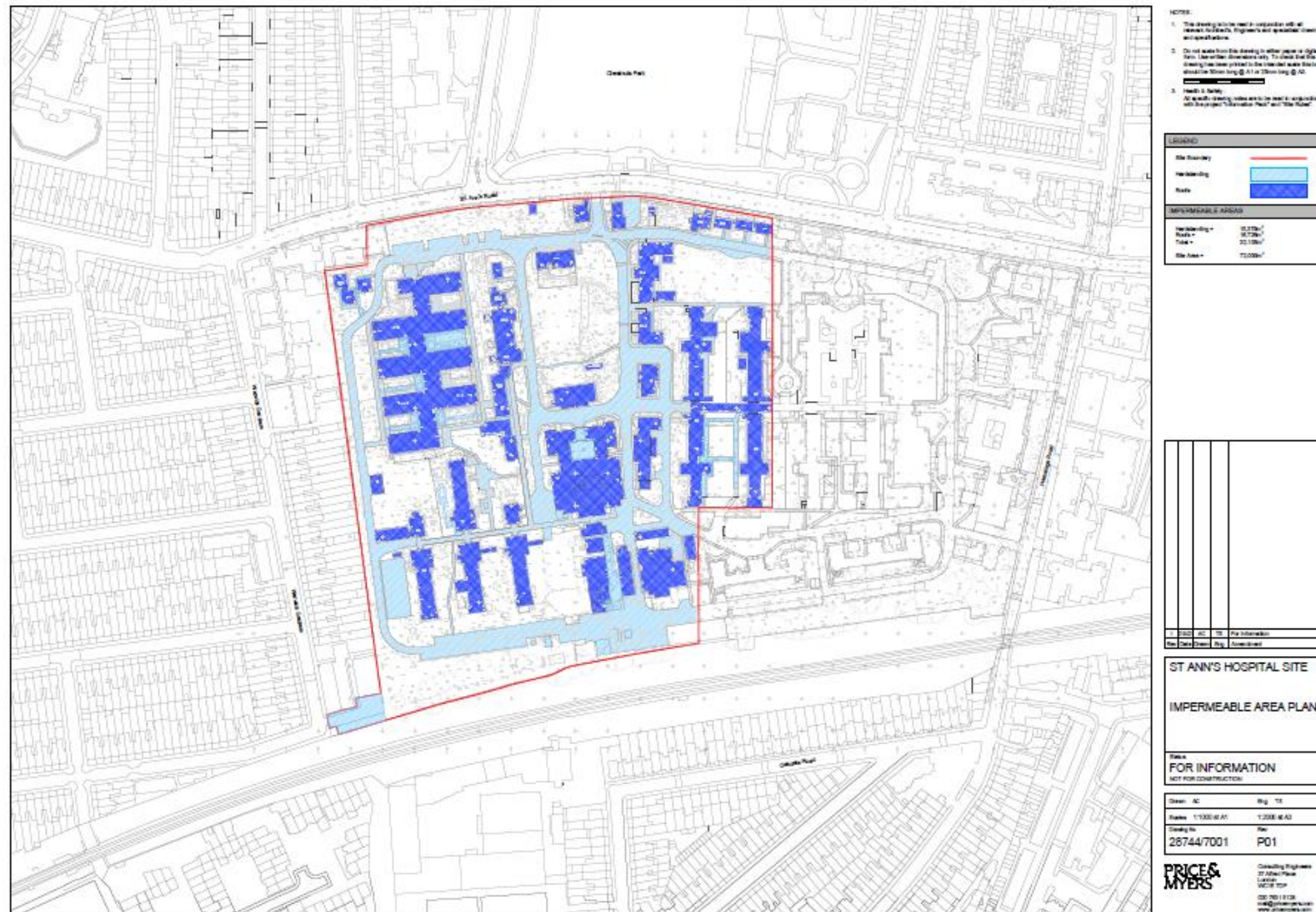
6.0 SITE PLANS

Thames Water plan





Existing site Impermeable area plan



New site Impermeable area Plan



New site Drainage Plan

