



## 6.1

## SITE-WIDE DISTRIBUTION SUMMARY

*Prepared with Steensen Varming & Alan Baxter*







This Chapter provides an illustrated summary of the proposals for site-wide services distribution from the proposed buildings to secondary plant rooms around the Estate. It should be read in conjunction with the drawings submitted within the planning application documents.

The High Voltage (HV) distribution will require complete replacement to meet the increased demands placed on electrical infrastructure by the new heating system proposed as part of the project. The design intent for HV and sub mains distribution is to utilise external routes wherever possible as they pose less disruption to the Museum and follow best engineering practice. In below ground external distribution areas, the new cables will typically be laid within ducts within the road, with cable pits required at regular intervals or where changes in direction occur. Where cabling is routed at high level, heavy duty cable ladders with fire rated enclosures shall be provided, extended where the cable rises or drops to low level trenches. Where cables run at low level internally, they will be placed in RC trenches.

The majority of LTHW heating system pipework will need also need to be replaced, though some will be retained where possible (pending condition surveys) to reduce disruption to the Museum. Externally, new LTHW pipework will run either buried under the road or at exposed at high level. Internally, the new pipework will run in existing trenches retained at their current size where possible, though there are a number of areas where existing basement trenches will have to be increased in size to receive the diameter (for pipework + insulation to minimise heat losses) of new pipework.

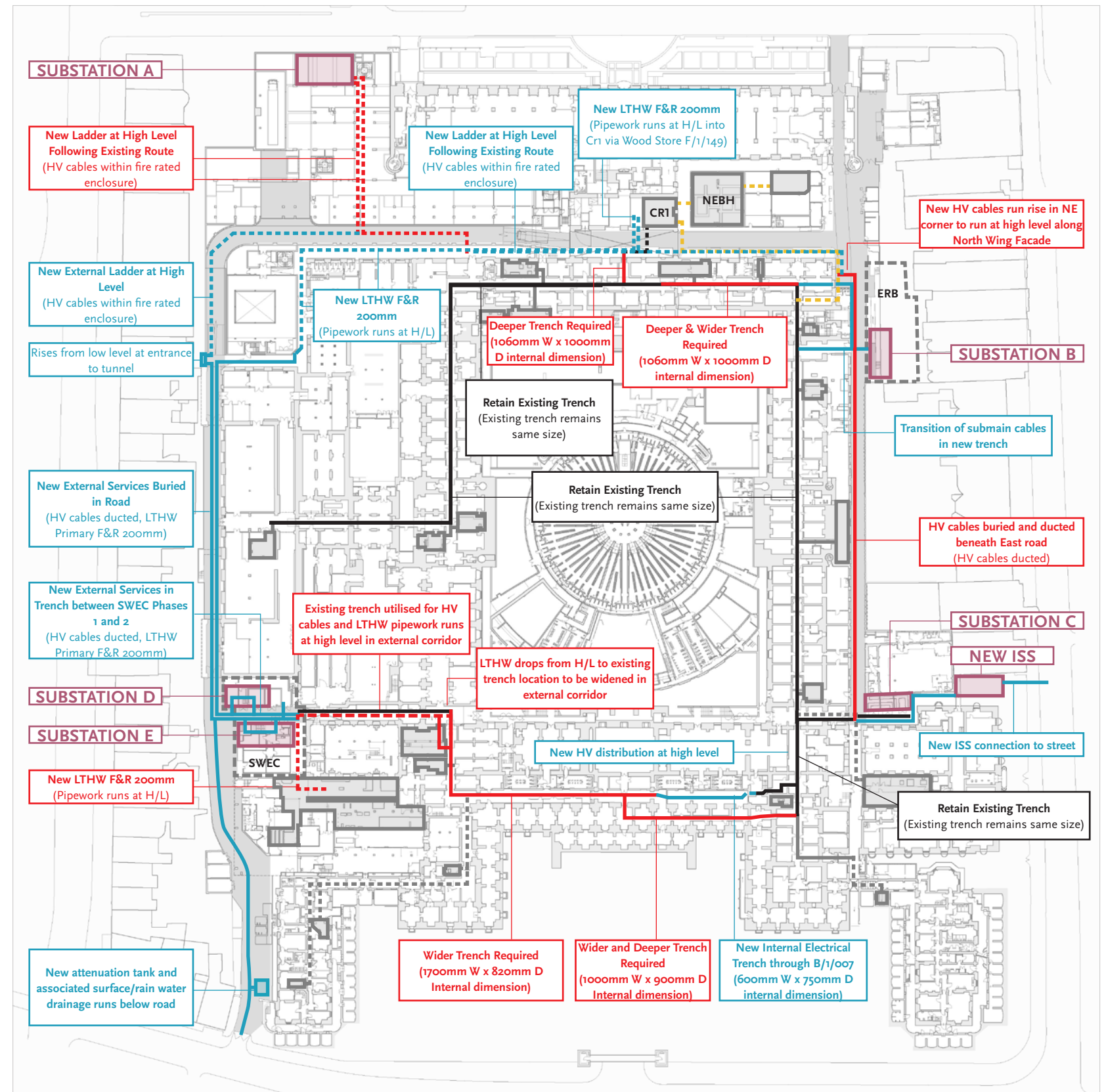


**Key:**

-  Existing retained services trenches below ground
-  Existing retained services at high level
-  New services route below ground
-  New high level services route
-  Existing services route to be enlarged/adapted below ground
-  Existing services route to be adapted above ground
-  Existing services route to secondary plant rooms to be retained
-  Existing LTHW services to be demolished
-  Substation
-  Secondary heating plant room

**Right:**

Level 01 plan with the proposed combined distribution routes of the HV cables and LTHW distribution as adapted from Steensen Varming drawings





6.2

SITE WIDE DEMOLITION

The image adjacent captures the current understanding as to the demolition works site wide for the project, exclusive of those covered in the previous section regarding distribution trenches.

The main demolition works include:

- The existing South-East Portacabins
- The existing but unused below ground tunnel/ ramp connecting the White Wing to 1/1A Montague Street
- Great Court Chillers and distribution on the roof of the Lycian Building
- Existing South-West Boiler House
- Existing South-West Portacabins

Internal plant and non-structural partitions will also be reconfigured within the New Wing at Level 01 as part of the enabling works. Please refer to Chapter 7 for further information on these enabling work proposals. Other elements which are included as part of of Energy Centre Programme but fall within a separate planning application (i.e. are outwith the scope of this application) are:

- The existing Green Huts directly north of the East Road Building
- The existing East Road Building (refer to ERB April 2023 submission reports and drawings for further information)

Other elements which the proposals will enable future demolition of, but not be demolished as part of the application scope are:

- The existing North-East Boiler House (this will be used for contractors welfare accommodation during the Energy Centre Programme construction)
- The existing Incoming Substation

