

Schedule of works to listed building

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— Introduction

1.1 Schedule of works to listed building

This Schedule of Works to a listed building has been prepared to accompany an application for Full Planning Approval and Listed Building Consent for the proposed works on the site of Hampton Waterworks, Upper Sunbury Road, Hampton TW12 2DS, London.

1.2 Hampton Waterworks

1.21 Site location

Upper Sunbury Road, Hampton TW12 2DS

The development site is located within the authority boundary of the London Borough of Richmond Upon Thames and is bounded by Upper and Lower Sunbury Roads to the north and east. To the West lies existing residential development as well as the Water Treatment works reservoirs and buildings which are also found to the South of the site. The site currently houses Grade II Listed former waterworks buildings – Karslake and Ruston & Ward - comprising former engine houses with single storey blocks.

1.22 Grade II heritage listing

The Grade II Listing covers three parts of the site:

Karslake building

- Grade II listed 'Hampton Waterworks The Beam and Store Buildings to the west of The Beam', also known as the Karslake Building
- has two taller blocks – Former Beam Engine House, former Bull Engine house and a single storey block former Boiler House between them.

Ruston & Ward building

- Grade II listed 'Ruston', henceforth referred to as Ruston & Ward Building
- has a two storey Bull Engine house to the east, single storey former Boiler house block to the west and a former Engine house, workshop block to the south-east

Cast Iron Railings & Piers

- Grade II listed 'Cast Iron Railings between corner of Lower Sunbury Road and east end of The Beam linking with the painted cast Iron Gate Piers east of Ruston & Ward Building'

1.24 Curtilage listed buildings

Waterworks cottages & Storehouse

The site also contains Nos. 3 & 4 Upper Sunbury Road, also known as Waterworks cottages, and a small storehouse building. These are identified by Richmond upon Thames Council as Buildings of Townscape Merit and are considered curtilage listed buildings.

1.3 Proposal

1.31 Proposed works

The proposed works to the listed buildings are comprised of:

- Clean and restoration of the existing heritage facades including undertake cleaning of any brickwork, stonework with associated defects restored as required, remove any plant growth within finish material and restore any associated damage / defects, re-pointing any areas of

mortar failure, restoration works required such as replacing or repairing any decayed bricks and repointing, any areas of brickwork, stonework that varies from the predominant finish type to be refinished or replaced if required, restoration of original metal windows, undertake restoration works of any existing feature or signage to be retained

- Clean and restoration of the existing heritage assets internally
- Removal of the roof structures of the single storey blocks to Karslake former Boiler house and Ruston & Ward former Boiler house and their replacement with contemporary single storey roof extensions
- New two storey side extension on Karslake former Bull Engine house south elevation, in location of previously demolished extension
- Strip out and removal of internal modern additions
- Insertion of new residential dwelling units within the existing facades
- New windows and doors in accordance with the approved plans.
- Restoration of the existing external grounds, including cast iron railings and piers, stone sets, and fragments of coal railway lines
- New hard and soft landscaping within external grounds

1.32 Associated documentation

- This document should be read in conjunction with the reports prepared by LOM Architecture & Design. RPS Group, Hydrock and enclosed application drawings, Design and Access Statement and Photo Documentation.

1.4 Access, Safety and security provisions

- Provide and maintain while works are being carried out all boarding, screens and barriers necessary to keep the building secure.
- Install temporary propping in accordance with the directions of a structural engineer in order to stabilise stairs, floor joists, and the structure generally. Provide temporary balustrade and handrails where these are missing at staircases. Provide sheeting or boarding wherever floor boarding and stair treads are missing. Cordon off floor areas where joists are missing or unsupportable and display warning signs for duration of works.
- Clear out rubbish from internal spaces so that all areas are open to inspection and free from nesting places. Prepare an inventory of all surviving historic features. Protect original features for the duration of the course of works. All loose historic materials shall be retained and stored within a secure area within the building.

External works

2.1 General

- All new brickwork to match existing in colour, size and texture. All new pointing and re-pointing of existing masonry to be carried out using hydraulic lime-based mortar in accordance with an agreed specification, submitted to and approved in writing by the local planning authority. Pointing finishes to be flush with the face of the brickwork and 'stippled' with a stiff brush.
- Overhaul all retained original window frames and introduce new metal windows in accordance with the approved plans.
- Ensure all new paintwork is carried out using high quality external paint.
- All new external and internal works, and works of making good to the existing fabric, should match the existing adjacent work with regard to the methods used and to material, colour,

texture and profile, unless specified otherwise in the above schedule, or agreed otherwise in writing by the local planning authority

2.2 New extensions

2.21 Karslake rear extension

- Erect new two storey extension in place of the previously demolished extension to Karslake Bull Engine house; external material in London stock matching brickwork with aluminium windows
- Roof level to provide external terrace with glazed balustrade

2.22 Storehouse rear extension

- Erect new single storey extension to enlarge the storehouse into a detached house
- External cladding to be corten panel system with aluminium windows

2.23 New Roof extensions over single storey blocks to Karslake and Ruston & Ward former Boiler house buildings

- Remove existing trusses and roof coverings at single storey making good the masonry pockets / wall plates at the springing points.
- Erect new floor: steel beams with metal deck and slab within the depth of the supporting beams and supported on perimeter existing masonry walls within pockets, including supporting columns.
- New ground bearing slab possibly lowered. Investigations on walls required to check slab can be lowered without undermining existing foundations.
- Erect new single storey roof extensions – external walls to be a window wall glazing system, roof to have projecting eaves and be low slope hipped roof with zinc covering.
- Install new glass balustrade behind existing parapet wall.

2.3 Roofs

2.31 New Roof extensions over single storey blocks to Karslake and Ruston & Ward former Boiler house buildings

- Carefully strip the existing slates and hip/ridge tiles. Set aside all sound items for re-use. Strip off all battens and de-nail rafters. Remove composite wrought iron trusses, making good the masonry pockets / wall plates at the springing points.
- Clean, overgrown vegetation on parapet wall and repair brick and stonework as necessary using a traditional hydraulic lime based mortar.
- Areas of brickwork that varies from the predominant finish type to be refinished or replaced

2.32 Beam Engine / Bull Engine houses to Karslake and Ruston & Ward buildings

- Overhaul and reinstate salvageable rainwater goods. Reinstate missing or irreparable parts of the system. Clean rainwater goods through to inspection chambers and generally ensure that all rainwater run-off is conducted to drains.
- Carefully strip the existing slates and hip/ridge tiles. Set aside all sound items for re-use. Strip off all battens and de-nail rafters. Carry out repairs to composite wrought iron trusses in accordance with a structural engineer's survey and recommendations.
- Install new thermal insulation and waterproof layer in accordance with a structural engineer's survey and recommendations. Fix new treated battens and rafters of same size as the originals. Re-roof using all original sound slates and tiles with new slates and tiles to match.

- Renew all flashing, soakers, fillets, gutter linings and outlets using leadwork installed in accordance with the Lead Development Association Booklets Lead Sheet in Building and Lead Sheet Flashings.
- Repair flashing along the party wall on the west edge of the Beam engine house in Karslake and along the existing single storey rear extension to the south of Karslake Western Pump house

2.4 Brickwork, Stonework and Render repairs

2.41 General

- Cut back and treat all plant growth in external brickwork using a systemic killer; leave to die and then carefully remove. Remove root growth from internal plaster and brickwork in similar manner.
- Carry out local repairs to the high-level over-sailing cornice and roof parapet with render finish and repaint.
- Rake out loose or defective mortar joints at brickwork including parapets (do not use hammer and chisel or pick hammer). Re-point using lime mortar and finish to a flush joint.
- Repair external rendering in a colour, texture and composition to match the existing; renew existing rendered finish wherever this is cracked or has lost its bond, including sills, window mouldings and decoration.
- Carry out local repairs to render relieving band between the ground and first floors and repaint.
- Allow for repairs to historic movement cracks and other general repairs to brickwork.
- Any areas of brickwork, stonework that varies from the predominant finish type should be refinished or replaced if required
- Repair historic movement cracking in render finish of the ground floor.
- Carefully remove all damp and salt contaminated render at basement level to the height of the lowest recess in rusticated elevation.
- Remove all external additions to the facades, such as cable support brackets, cigarette bins, sockets, ventilation flutes and make good the brickwork / render finishes as necessary.
- Repair and retain original signs
- Allow for repairs to cracks and other general repairs to brickwork.

2.42 Karslake Eastern Bull Engine house and Ruston & Ward Bull Engine house

- Carry out repairs to the stone and render to the ground floors
- Repair stone and render to perforated roof parapet wall

2.5 Windows and Doors

2.51 General

- Remove all non-original windows and replace with high-quality double-glazed metal framed windows to match original / in accordance with the approved plans. Windows to fit existing openings, concrete lintels left in place and sill repaired or replaced as necessary.
- Remove metal security grilles over windows at the ground floor to Karslake Boiler house.
- Overhaul all repairable windows and frames by replacing missing panes and parts; re-puttying and re-pointing externally; lubricating moving parts; refitting missing or defective ironmongery, cords and weights (adjusted as required for balance); preparing priming and redecorating including undercoat and two top coats to all bare wood, using good-quality gloss paint in accordance with the paint manufacturer's recommendations; easing and adjusting to ensure smooth operation. Isolated areas of decayed wood shall be replaced by piecing in new matching treated timber.

- Replace irreparable original window frames and sashes with new to match existing / in accordance with the approved plans.
- Where original windows are restored and retained, install new, high performance secondary glazing behind / in accordance with the approved plans.

Karslake building

2.52 Karslake – West Beam Engine house

- Remove steel door at western elevation and fill opening with bricks to match existing
- Remove ground floor wooden panel and door to eastern elevation and install new corten panel and door & glazing aluminium framed system
- Remove 1x window to south elevation to enlarge opening and install new front door to entrance lobby
- Cut new openings in existing brick wall to the north elevation and install 2x new windows to ground level unit and match fenestration pattern.
- Remove 1x tall round headed window to east elevation to allow new stairwell via new glazed link to the new roof extension. Insert a concrete lintel to support new opening.
- Repair and retain original windows; if not possible to repair, replace with new to match original in accordance with the approved plans.

2.53 Karslake - Eastern Bull Engine house

- Enlarge the ground level blind window opening to east elevation and install 1x new window.
- Remove wooden panel and door to east elevation and install new false door and window to match Ruston & Ward Engine house opening
- Install 2x new window-door panels to south elevation and allow access to new terrace on roof of new rear side extension
- Remove 1x tall round headed window to west elevation to allow new stairwell via new glazed link to the new roof extension. Insert a concrete lintel to support new opening.
- Repair and retain original windows; if not possible to repair, replace with new to match original in accordance with the approved plans.

2.54 Karslake - Single storey Boiler house

- Remove 2x windows to eastern elevation to allow for the build of a new two storey rear extension
- Remove all 20th century windows / doors and replace them with new glazing-door system or windows to match adjacent on facades. Where new smaller openings are proposed in place of existing opening, infill the remaining opening with new bricks to match existing or reclaimed bricks from site if possible.
- Repair and retain original windows; if not possible to repair, replace with new to match original in accordance with the approved plans.
- Remove 2x windows on northern elevation to install new entrance glazing-door system and 2x doors to install new entrance glazing-door system
- Remove 4x doors on southern elevation to install new entrance glazing-door system and enlarge 1x window to install a new window
- Remove 1x door on southern elevation to install a new window

Ruston & Ward building

2.55 Ruston & Ward – Bull Engine house

- Remove 1x tall round headed window to west elevation to allow new stairwell via new glazed link to the new roof extension. Insert a concrete lintel to support new opening.
- At the ground level blind window opening to east elevation and install 1x new window.
- Remove all 20th century windows / doors and replace them with new glazing-door system or windows. Where new smaller openings are proposed on the place of existing opening, infill the remaining opening with new bricks to match existing or reclaimed bricks from site if possible.
- Repair and retain original windows; if not possible to repair, replace with new to match original in accordance with the approved plans.

2.56 Ruston & Ward - Single storey Boiler house

- Remove all 20th century windows / doors and replace them with new glazing-door system or windows. Where new smaller openings are proposed on the place of existing opening, infill the remaining opening with new bricks to match existing or reclaimed bricks from site if possible.
- Remove 3x windows on northern elevations to install new entrance glazing-door system
- Enlarge 2x windows on the southern elevation to install new windows
- Cut new opening west elevation to install a new window.

2.57 Ruston & Ward – Engine house / Workshop

- Remove 1x original door to west elevation and replace by new contemporary window. Infill the remaining wall opening with bricks to match existing.
- Repair and retain original windows; if not possible to repair, replace with new to match original in accordance with the approved plans.
- Repair and retain original doors; if not possible to repair, replace with new to match original in accordance with the approved plans.

2.6 Landscape

2.61 General

- Remove existing trees to the north of the site to allow for a new driveway in accordance with the approved plans / consent for any necessary tree works.
- Relocate existing brick pillar to increase width required for vehicle entry to site.
- Carefully remove all existing cobblestone paving sets and railway lines to the rear of Ruston & Ward building and set aside for reuse. Retain in place and restore if possible, cover over and protect during the development phase if necessary.
- Clear overgrown vegetation
- Clean and restore cast iron perimeter railing around site edge
- Install new fencing along southern site boundary with reservoirs in accordance with the approved plans
- Replace contemporary fencing along eastern edge of site in accordance with the approved plans
- Install low-level boundary railings at private entry gardens to residential units in Karlake in accordance with the approved plans

2.62 Soft landscaping

- Plant new trees, ornamental grasses, low-level and mid-height planting along north, eastern and southern boundary

2.63 Hard landscaping

- Build new driveway, sidewalks, private gardens and fencing, and parking with permeable paving reusing existing cobblestone where possible

Internal Works

3.1 General

- Clean and restoration of the existing internal walls including undertake cleaning of any brickwork, stonework and tiling with associated defects restored as required.
- Clean and restoration of the existing heritage assets internally.
- Provide ventilation to all internal spaces, while ensuring that pigeons are prevented from entering the building.
- Strip out all internal non load bearing partitions and restore original fabric.
- Allow for new plumbing and heating system to be installed.
- Allow for electrical rewiring.
- Remove all existing sanitaryware.
- Repair and retain all original internal doors in accordance with the approved plans.
- Restore and repair all existing original windows retained in accordance with the approved plans.
- Treat basement / low level brickwork affected by rising or penetrating damp in accordance with Damp Proofing Association.

3.2 Karslake building

3.21 Karslake - West Beam Engine house

- Treat surface corrosion to first floor beams.
- Remove internal partitions and stairs.
- Carry out repairs to metal beams and columns in accordance with a structural engineer's recommendations.
- Repair cracking at northwest corner first floor window.
- Repair cracking to arches at first floor level.
- Repair remedial tie across width of block from southwest to southeast corner.
- Repair and retain timber floor structures in accordance with structural engineer's recommendations. Reinstate floor boarding and skirtings including new material where required, to match existing. Remove portion of 1x steel beam to allow for a new stairwell. Install new floors to SE's design and recommendations.
- Repair and retain beam loft floor showing spring beams and trunnion bearing support.
- Repair and retain intermediate floor structure of York slabs on rolled iron or steel joists in accordance with structural engineer's recommendations.
- Repair and retain dog-tooth details on the walls, brick detailing around the round-headed windows, light switches, stencilling to brick wall in two locations.
- Repair, retain and relocate, fish belly gantry crane at roof level.
- Install new floors and partitions to SE's design and recommendations.

3.22 Karslake - Eastern Bull Engine house

- Remove water from basement slab and fix any water damages to slab and foundations from roof leaks to SE's design and recommendations.
- Repair vertical crack in south wall at high level.
- Remove corroded decking and stairs at entrance.
- Remove later inserted ceiling under sarked roof.
- Repair and retain interior detail showing stone corbels for engine lifting beams.
- Install new floors and partitions to SE's design and recommendations.

3.23 Karslake - Single storey Boiler house

- Strip out and remove all twentieth century non-loadbearing partitions within, including doors, wall and floor finishes back to substrate.
- Strip out and remove all twentieth century suspended ceilings, lighting, and wiring.
- Strip out and remove all twentieth century plumbing and heating system with associated pipework and all water connections to sanitary appliances.
- Install new floors and partitions to SE's design and recommendations.

3.3 Ruston & Ward building

3.31 Ruston & Ward - Bull Engine house

- Form new wall openings with needles/temporary propping.
- Retain and restore existing primary wrought iron roof structure.
- Retain and restore primary lifting beams at high level.
- Repair and retain all original interior details, such as Victoria glazed tiles, sloped tiled window sills up to first storey level.
- Carefully remove original floor tiles and reinstall on new floor.
- Repair and retain all original doors in accordance with the approved plans.
- Remove internal plasterwork and reveal brickwork from first storey level to roof level.
- Strip, repair, relocate electric centrifugal pumps below ground and ground, with associated machinery and control cabinets.
- Strip out and remove all twentieth century suspended ceilings, lighting, and wiring.
- Install new floors and partitions to SE's design and recommendations

3.32 Ruston & Ward - Single storey Boiler house

- Strip out and remove all twentieth century non-loadbearing partitions within, including doors, wall and floor finishes back to substrate.
- Strip out and remove all twentieth century lighting, and wiring.
- Strip out and remove all twentieth century plumbing and heating system with associated pipework and all water connections to sanitary appliances.
- Install new floors and partitions to SE's design and recommendations.

3.33 Ruston & Ward - Engine house / Workshop

- Repair cracking in west end piers under the gantry crane runway beams.
- Retain all original internal details, such as glazed wall tiles, Tuscan columns, cast iron stair railing.
- Strip out and remove all twentieth lighting, and wiring.

- Strip out and remove all twentieth century plumbing and heating system with associated pipework and all water connections to sanitary appliances.
- Retain and restore gantry crane.
- Retain and restore primary wrought iron roof structure.
- Strip out brick-built 20th-century enclosure and stairs.
- Repair and retain all original doors in accordance with the approved plans.
- Retain and restore damaged electrical control panel to remain insitu.
- Install new mezzanine floor to SE's design and recommendations.