




Schedule of Conservation Works & Heritage Specifications

The Paper Mill, 20 Shepherd Street, Liverpool

Submitted to Liverpool City Council
On Behalf of Coronation Property

Report Revision History

| Revision | Date Issued | Prepared by | Reviewed by | Verified by |
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CERTIFICATION

This report has been authorised by City Plan Heritage P/L, with input from a number of other expert consultants, on behalf of Coronation Property. The accuracy of the information contained herein is to the best of our knowledge not false or misleading. The comments have been based upon information and facts that were correct at the time of writing this report.

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1. Heritage Specifications

1.1 Background

City Plan Heritage has been engaged by Coronation Property to provide heritage consultancy services including preparation of the following Heritage Specifications and Schedule of Conservation Works.

In light of previous works undertaken at 20 Shepherd Street, Liverpool City Council has requested further heritage documentation work to be prepared as part of the current Development Application (DA) documentation. These include a new Heritage Impact Statement, a Schedule of Conservation Works, and update of the previous Heritage Interpretation Strategy and Conservation Management Strategy in order to inform the future adaptive reuse of the former Mills building. Following receipt of the Council's Heritage Advisor, Anna London's comments on the submitted drawings and documentation, the Schedule of Conservation Works has been amended in order to incorporate resolutions to the issues raised.

The subject site at 20 Shepherd Street, Liverpool, is listed as McGrath Services Centre Building (formerly Challenge Woollen Mills, and Australian Paper Company's Mill) on Schedule 5 of the Liverpool LEP 2008 (1104).

Tanner Kibble Denton (TKD) Architects have also been engaged by Coronation Property to provide the required detailed drawings to document the necessary conservation works to the building. The author has worked in close association with TKD and the project architects Woods Bagot to deliver a satisfactory documentation for Council's approval.

The previous heritage reports, which were prepared for the site by Graham Brooks & Associates in 2012 and 2014, including the Revised Heritage Interpretation Strategy and the Revised Conservation Management Strategy, have provided the background information for the proposed new development and the current Schedule of Conservation Works.

The Schedule of Conservation Works is required to be implemented to the satisfaction of the Liverpool City Council prior to the issue of the Occupation Certificate.

The following section include general Heritage Specifications and the Schedule of Conservation Works to guide the future and short term conservation and repair works to the former Mill Building as part of its proposed adaptive reuse works. Some of the specifications and guidelines may not be required or relevant for the current conservation and repair works; however, they are included to guide any future conservation and maintenance works in order to ensure works to the Building are carried out in an appropriate manner.

1.2 General Heritage Specifications

The following general Heritage Specifications have been prepared as a guideline to support the Schedule of Conservation Works of the former Mill Building at 20 Shepherd Street in Liverpool. The Australia ICOMOS *Burra Charter*, J. S. Kerr's *The Conservation Plan*, and "The Maintenance of Heritage Assets: A Practical Guide" and the "Heritage Information Series" prepared by the NSW Heritage Office are used as references for the preparation of this Schedule.

Specifications for repair and maintenance of timberwork have been based on the Guidelines provided in *Traditional Joinery: Sydney houses 1810-1915* by Wal Murray and Alan Croker, Sydney, The Watermark Press, 2005.

1.2.1 Author Identification

This Schedule has been prepared by Kerime Danis, Director of City Plan Heritage, and incorporates the findings of the Conservation Management Strategy and Heritage Interpretation Strategy for the former Mill site as well as the conservation/adaptive reuse drawings prepared by TKD Architects and the redevelopment design drawings by Woods Bagot Architects.

1.2.2 Generally

The works should be carried out in strict accordance with these Specifications, the Schedule of Conservation Works, and the relevant structural, construction drawings and specifications. Should any future drawings and instructions be issued or given during the progress of the works they should conform to these specifications.

This Schedule of Conservation Works should be read in conjunction with the revised conservation/adaptive reuse drawings prepared by TKD Architects and the amended redevelopment design drawings by Woods Bagot Architects, and any associated Structural Engineers' drawings.

1.3 Summary Description of the Building

The former Mill building on the site is combination of the 1914 former Challenge Woollen Mill factory and its subsequent modifications of the 1970s for use as a vehicle service centre.

The building is constructed of brick masonry with a series of steel trusses supported on stone corbels, columns and roof framing that support the glazed saw tooth roof. The roof is covered in corrugated iron sheeting, with alternating glazed strip panels providing daylight into the former factory space. The soffit of the roof structure is lined in beaded timber boarding. The steel columns are fixed into the concrete slab flooring.

The exterior of the western (front Liverpool Street) elevation is face brickwork with a series of twelve intact regular bays with a door or segmental arched window opening centered in each, and a projecting brickwork plinth running the length of the building. The original joinery of the building on western elevation was generally painted timber double sashes and was replaced with the current black painted powder coated aluminum single pane frames. Window sills appear to be originally made of stone with possible render overtime. Originally designed to reflect the rhythm of the western elevation, the arcaded brickwork to the eastern (rear) elevation has been substantially altered in response to the changing uses of the site. Some brickwork bays with early timber (and aluminum sash) window frames remain. The rear elevation is divided up by a series of roller shutters and other openings to provide access to the service areas of the former factory building.

The northern elevation is a substantially modified two-storey face brick façade created by the removal of the northern projecting end of the 1914 saw toothed structure and essentially bricking up all of the window and door openings. A number of various sizes of segmental arches evident along each level of the façade. The recent new building work included replacement of the 1970s glazed entry and reception foyer off Shepherd Street and creation of an exhibition centre incorporating a display unit. The high metal clad parapet of the 1970s work has been repainted to reflect the current exhibition centre for the new development in the site.

2. Part One:

2.1 Definitions

The following definitions are general descriptions only and may need to be expanded for some specific trades, which require specialist work.

Fabric: All physical material of the place including components, fixtures, contents, and objects.

Patch: Repairing the defect and damaged timber work, masonry (brick and stone), render or concrete floors. Where 'patch' is necessary, carefully check out defective areas of fabric without excessively interfering with sound fabric and make sure that patching material matches the original fabric as close as possible in all aspects (colour, grain, bedding, durability, porosity and chemical composition) or use salvaged material as much as possible. The repaired section should show minimum evidence of patching.

The following has been provided as a general guideline for patching timberwork (e.g. windows, and roof trusses soffit):

- Where area of damage is small and is surrounded by sound timber use small patches.
- Use generally diamond shaped patches with the grain of the patch and element being patched running in the same direction.
- Do not use timber dowels for circular holes.
- Where areas are too small for patching use filler if the surface is to be painted.

Preserve: To keep and retain the original or early significant fabric of the building and to ensure the significant fabric is not damaged.

Restore: Reinstating of a fabric to its earlier known state where sufficient evidence is available.

Remove: To take out the non-significant and intrusive elements, and harmful substances. Where scheduled "remove" make sure the appropriate methods are used and the original or early fabric is not damaged. Apply the minimal intervention philosophy to the fabric in all removal works. Avoid the use of electric saws or pneumatic hammers. Some removals may require specialist work such as paint on the facebrick walls.

Provide access and allow time for archival recording by the Heritage Architect during the removal of fabric where an earlier detailing is exposed or required.

Replace: Where specified "replace" carefully remove the entire section of element to be replaced, and replace with new work to match the existing or as specified in the Schedule of Conservation Works exactly in regard to the materials, profiles and finishes.

Guidelines for spliced timber repairs:

- Where specified replace a portion of a single member such as the timber window mullion or roof soffit board repair by spliced or a scarfed joint as applicable.

- It is preferable the spliced or scarfed joints to have diagonal ends with the direction of the diagonal end be selected in a way to preserve as much original fabric as possible.
- Use a marine grade epoxy adhesive when making spliced and scarfed joints.

Re-point: As a general guide, when required, re-point exposed joints of masonry (brick) walls only where existing mortar is unsound or where sufficient mortar is missing. Ensure the areas of re-pointing are approved by the Heritage Architect prior commencing.

Retain: Where scheduled “retain” ensure the element is retained *in-situ* or as specified in the Schedule of Conservation Works, and treated in accordance to all details and specifications (including construction drawings, heritage, structural engineer and services).

Salvage: Recovering a fabric nominated by the Heritage Architect and saving for re-use. Carefully remove the nominated fabric to be salvaged including stone; brick; and roof soffit beaded boards; roof elements including corrugated iron sheets, glazed panels and steel trusses; window and door frames; and remnant light fittings and pulleys scattered on the roof trusses. Do not damage the fabric both to be salvaged and the surrounding fabric. Store in a safe and secure place with appropriate labelling and palletising as instructed and approved by the Heritage Architect and the project Architect, ensuring the element will not be damaged, until to be reused where nominated or discarded for sale to second hand conservation shops.

Repair: Where scheduled repair or refix, replace any missing or damaged material onland fix new material to match existing adjacent finish. Or refix sound but dislodged material.

Paint: Paint finishes to be applied only to surfaces scheduled which are previously painted. As the tenant for the adaptive reuse of the place is unknown at this stage an indicative fit-out has been provided. The colour scheme for the interiors will need to be determined as part of a future Development Application for the tenancy fit-out. It is recommended that any future colour scheme to be based on the paint scraping of ceiling and any other previously painted surfaces. In the interim, the existing colour scheme of the ceilings should be maintained.

Clean, firm and dry all surfaces to be painted before the application of any paint.

DO NOT PAINT ANY PREVIOUSLY UNPAINTED SURFACES AND ELEMENTS.

2.2 Orientation of the Construction Manager

As part of their responsibilities in understanding the significance of the former Mill building and the site conditions of the site, the construction manager and trade contractors shall walk through the whole building and its immediate curtilage with the Heritage Architect and the project architect to familiarise themselves with significant fabric and other issues for the successful implementation of the conservation and repair works. All people involved in the restoration and repair of the former Mill building are to be familiar with their relevant heritage responsibilities noted in 'Part Two' of this report.

Tenderers are to include management and quality procedure to demonstrate adherence to this process.

2.3 Selection of Trade People Involved in the Construction

Appropriately qualified tradespersons are to be commissioned who are skilled in traditional building trades to carry out the proposed scope of works. In order to ensure appropriately qualified tradespersons involved in the execution of the works, in particular works to the brickwork and timber joinery of the former Mill building, the Contractor shall provide the names and examples of previous expertise for these tradespersons for approval by the Heritage Architect prior to commissioning.

2.4 Execution of Works

The works shall be executed in a first-class tradesman like fashion to the true intent and meaning of the construction drawings, specifications, Schedule of Conservation Works and all further drawings, details and instructions issued.

Materials and techniques used shall fully comply with the relevant standard specifications issued by Standards Australia, and to the nature of the former Mill building's materials and techniques. All materials to be new, defect-free except where demolished or removed materials approved by the Heritage Architect for re-use.

Discrepancies in the drawings and the specifications shall be immediately brought to the Heritage Architect's and the project architect's attention for direction before proceeding with the relevant part of the works. In case of any confusion or conflict in the documents, the contractor should consult the project architect for a decision / clarification. The Heritage Architect's confirmation should be sought for assurance.

2.5 Damages

The contractor shall make the workmen and subcontractors aware that the former Mill building's fabric is important. The contractor shall be responsible for all damage caused by anyone for whom the contractor is responsible.

2.6 Variations

The contractor shall not depart from the drawings and specifications in implementing the conservation and repair works. The contractor shall not use alternative details and materials unless approved by the Heritage Architect.

3. Part Two:

3.1 Demolisher / Removal of Fabric

- All demolition works shall be carried out in accordance with the construction drawings and associated structural engineer's drawings and specifications. All demolition works, where scheduled, are to be carried out carefully and systematically with as minimal shock as possible and strictly in accordance with a methodology specified by the structural engineer. Ensure the extant significant fabric of the former Mill building that is nominated for retention is not damaged.
- Remove all redundant fixtures including steel bolts, masonry plugs, cables, pipes, cleats/hooks etc from the retained facades.
- Support the structures where necessary, and as specified by the structural engineer, ensuring against any damage until the associated new work is complete (This is particularly important when supporting the retained walls and elements adjacent to new openings or demolished for reconstruction in the same location. Such as removal and reconstruction of window frames on the western façade and reinstatement of former openings on the southern elevation including repair and reconstruction of the arched opening and solid door).
- If any confusion arise whether any element, which is salvaged during the demolition, shall be preserved or not, the contractor shall stop the work and notify the project architect (or construction manager) to seek further instructions from the Heritage Architect.
- The remaining demolished materials, which are not nominated for salvage and recycling at second hand conservation shops, are to be carted from the site and deposited according to the rules of the local authority.
- Provide access and allow time for archival recording by the Heritage Architect during the removal of fabric where an earlier detailing is exposed or required. Ensure appropriate early notification for organisation of Heritage Architect's time. The Construction Manager is the responsible person from the subject notification and required to provide a demolition program to the Heritage Architect in order to establish a timetable for hold points that could be determined prior to the commencement of any works within the site. Any other unexpected finds must immediately brought to the attention of the Heritage Architect by the Construction Manager for inspection and advice on appropriate treatment/action as well as archival recording.

3.2 Masonry (Brick & Stone)

3.2.1 General

Scope in General

The scope of works includes but may not be limited to:

- Cleaning of brick wall and limited sandstone elements
- Re-pointing of nominated brickwork joints and all sandstone joints around the corbells and window sills
- Replacement of loose and deteriorated bricks and reconstruction of nominated brick walls with either salvaged / recycled bricks or new bricks as documented on the Architects' drawings and specifications
- Minor redressing of deteriorated stone corbells

Cleaning

- All brickwork of the building shall be cleaned using clean fresh water and a stiff bristle nylon scrubbing brush. Bronze brushes may be used to remove stubborn soiling or staining.
- No steel brushes are to be used.
- No chemicals are to be used.
- The use of pressure washers is prohibited.

Collection of Waste Water

Waste water generated during the washing down shall be collected, filtered and disposed of to the sewer system, subject to Sydney Water approval, or collected and disposed of by a licensed liquid waste contractor. Waste water must not be allowed to flow into the storm water drainage system.

A methodology is to be submitted by the tenderer for approval prior to any cleaning being carried out.

Re-pointing

- The re-pointing shall be carried out using the pointing mortar mixes described below.
- The existing joints shall be raked out using hand tools only. No angle grinders or other power tools shall be permitted to be used, except as authorised by the Heritage Architect. Care shall be taken not to damage the arises of the bricks and stone corbells/sills.
- No joints shall be widened to permit insertion of mortar.
- Joints shall be raked out to a minimum depth of 20mm from the finished face. Following raking out, the joints shall be blown free of dust with compressed air. Appropriate respiratory PPE shall be worn by the bricklayers carrying out the works during the blowing of dust out of joints.
- The joints shall be dampened with clean water immediately prior to re-pointing. Dry joints shall not be re-pointed.
- The re-pointing mortar shall be placed cleanly and under compression into the joint without smearing the brick (or stone) either side of the joint. No voids shall be left in the joint behind the pointing mortar. Masking tape placed either side of the joint prior to re-pointing may be used, but must be removed before the pointing mortar has achieved an initial surface cure.
- No closed-cell polyethylene backing rod, or backing rod of any other material shall be inserted into joints prior to re-pointing. Excessively hollow vertical joints shall be pointed in full either by repeated stages of pointing until filled.

Hold/Witness Points

The brickworks shall be held for inspection at the following hold/witness points:

- Joints - raked out, prior to re-pointing
- Mortar repairs – substrate preparation prior to application of mortar repair material.

3.2.2 Bricklayer

Patching:

- Patch repair where necessary and make good to match the existing adjacent brickwork. Where possible and nominated re-use salvaged material.

Re-pointing:

- In general for re-point works only where existing mortar of brick walls is unsound or where sufficient mortar is missing, match existing sound joints as determined by examination of surrounding areas and approved by the Heritage Architect. As part of the current works inspect the building's walls with the Heritage Architect (or identify areas that require re-pointing marked on elevations/sections and get approval from the Heritage Architect) and re-point as necessary following removal of any residue/unsound mortar from the facades.
- All new re-pointing works to the new and retained brickwork should be made in 'flush joint type' to match the original pointing style of the former Mill building.
- Unless otherwise specified, the following lime mortar mixes to be used for all re-pointing works:
 - 1 part lime (use hydrated lime)
 - 3 parts sand (clean, sharp, free from impurities and salt)
 - Or
 - 1 part cement (best Portland cement)
 - 1 part lime (use hydrated lime)
 - 6 parts sand (clean, sharp, free from impurities and salt)

Preserving:

Ensure the significant external and internal elements of the former Mill building including the facebrick and painted brick finish, all external architectural features and detailing, extant timber window frames, sawtooth roof and associated steel trusses and corrugated iron sheeting and industrial remnants elements such as pulleys and light fittings are preserved as nominated in this Schedule of Conservation Works.

3.3 Carpentry & Joinery

- All material, to be used for repair or new joinery, is to be the best of their kind and to be kept true, free from twist and other distortion.
- It is preferable to use one type of timber species for repair work matching the density and strength of the original or early existing timber. It would be best to have the species confirmed before ordering any new timber.
- Discard the salvaged timber window frames removed from the western façade, eastern façade where it will be demolished. It is recommended that any salvaged joinery be given to second hand conservation shops for reuse elsewhere.
- Construct new timber framed double-hung windows to all western façade windows and the two windows on the southern elevation nominated for reinstatement. Details, profiles and timber species of the new frames to match the traditional joinery for Federation period industrial buildings - Consult the Heritage Architect for appropriate details of the timber frames and provide shop drawings for approval prior to manufacturing and to confirm the timber species.
- Prepare and paint windows and doors in accordance with the recommended colour scheme if specified in the Woods Bagot Specifications. The historic colour scheme for the window joinery was combination of white/light colour and dark colour. Either white or black paint colour is considered would be appropriate.
- Retain and preserve all original window hardware where exist.

- Consult the Heritage Architect how to allow the new work to be recognisable but in a subtle way.
- Where elements need to be removed or dismantled for repair, first photograph the whole assembly, then mark and record all of the parts, including glass panes (as applicable), so that they can be reassembled in the same order. Marking shall be made on the back where they will not be lost during conservation and repair work.
- Whenever modifications is made to the structures / spaces:
 - All changes or new work shall be carried out in a reversible or removable way, if required at a later day.
 - All new fixing methods, where applicable, shall be reversible to allow for later removal, repair or refixing of an element without risk of damage to the surrounding original fabric.
 - Use the same fixing methods as the original. Use earlier fixing points where possible rather than creating new ones.
 - Select fixing points in locations that there will be no damage of risk to significant fabric such as fracturing or splitting.
 - When fixing a new item to a significant fabric, choose a location and method that will easily be repaired or disguised if the item be removed at a later date.
 - Tighten loose joints in door leaves and window sashes by removal of wedges, if possible, and glue worked into the joint. Use weak glue to allow future repairs.
 - Ensure drip grooves and anti-capillary grooves are cleaned of excess paint where required so that remain in workable order

3.4 Roofer and Roof Plumber

- Inspect existing corrugated iron and metal roof sheeting and make good as necessary. Allow locally removal and salvage of the sheets as agreed/identified with the Heritage Architect following inspection. Advise the Heritage Architect and the project architect reuse areas of the salvaged sheets.
- Where new corrugated metal roof sheeting is required, the material recommended is manufactured by Fielders in the traditional galvanised roofing methods, double-thickness Heritage Z600 galvanised roofing. This is the most appropriate material for historic galvanised iron roofing replacement, which maintains the authentic look of the building. Date stamping of the new roof sheeting may not be appropriate in order to maintain the watertightness of the sheets. It is considered that the patina will differentiate the old from new sheets hence it will be clear which roof sheets are later replacements. Therefore, ensure a mapping of the existing roof sheeting is recorded on the roof plan and any new roof sheets are marked and provided to the Heritage Architect for inclusion in the archival recording undertaken during the construction stage.
- Ensure all making good works match the architects' drawings and specifications.
- Install new roof drainage elements including round downpipes, D-gutter and traditional rainwaterheads seen in the historic photographs of the former Mill building. Use of Fielders products is preferred.

3.5 Electric, Water Services and Sanitary Plumbing

- Where required new services and cables should be surface mounted and installed without chasing into the brick walls and as specified in the architectural/mechanical/electrical drawings.

- Structural augmentation should complement the character of the historic structure and be identifiable as new work upon close inspection.

3.6 Metal Worker

- In general works to be carried out in accordance with the TKD and Woods Bagot drawings and specifications.
- Install the nominated decorative steel fence attached to the western façade to be detailed by TKD Architects in a simple design and appropriate to the character of the former Mill building. The design is to be signed-off by the Heritage Architect prior to manufacturing. Consider a self supported fence structure, if possible, otherwise ensure minimal fixing points (top and bottom rails) are used.
- All material, to be used for repair or new steel, is to be the best of their kind and to be kept true, free from twist and other distortion.
- Prepare and repaint in accordance with manufacturer's specifications.


3.7 Glazier

- Preserve existing plain glass of the windows and roof cladding as applicable and as scheduled for retention.
- If risk of damage is low chisel out the cracked putty otherwise use gentle heating or cut out putty with a router. Ensure the leg of the glazing bar is not damaged. Use traditional linseed oil putty where applicable.

4. Schedule of Conservation Works

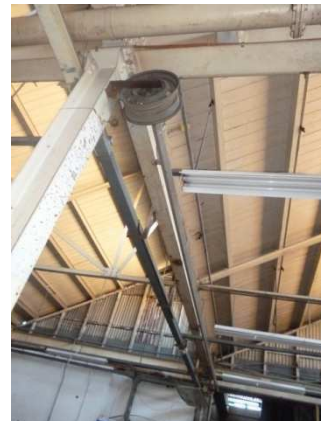
The following Schedule of Conservation Works has been prepared for the conservation, preservation and restoration of the former Mill building and should be read in conjunction with the Heritage Specifications above.

ITALICS IN THE TABLE BELOW REFER TO THE *BURRA CHARTER* TERMINOLOGY.

| WORK CATEGORY | WORK DESCRIPTION | SIGN-OFF BY HERITAGE ARCHITECT | SIGN-OFF BY COUNCIL'S HERITAGE OFFICER |
|--|---|--------------------------------|--|
| A. Removal of intrusive items & Demolition Works (All demolition works to be undertaken with utmost care in accordance with Section 3.1 above) | <ul style="list-style-type: none"> Remove all redundant services, plumbing, cables, air-conditioning units and non-original fixings to external elevations and throughout internal areas of the building. Patch repair fabric following the removal where necessary and as specified in general specifications above. | | |
| | <ul style="list-style-type: none"> Remove powder coated recent aluminium window frames and make good brick openings following removal to allow for installation of new timber framed window frames. Remove all black silicon mastic from the reveals of the windows on western façade as part of the removal of the existing window frames. Ensure no residue is left and make good for the installation of the new timber framed sash windows. | | |
| | <ul style="list-style-type: none"> Remove all later partition walls and display unit elements and make good walls after removal in accordance with approved demolition drawings. | | |
| | <ul style="list-style-type: none"> Demolish nominated sections of the 1970s building including roofing, walls, roller door, windows, doors and floor slabs with utmost care. Salvage bricks, original/early window and door joinery where possible for reuse elsewhere in consultation with the Heritage Architect. Salvage of materials is particularly important in the case of roof trusses as they will be reused for interpretive landscaping. Salvaged bricks to be cleaned and stored for re-use in repair of the West and South walls. | | |
| |  | | |
| | <ul style="list-style-type: none"> Remove the roller door to the west elevation and aluminium framed fix glazing from the existing entrance. Carefully remove the concrete ramp adjacent to the northern end of the western façade including associated steel handrails and the concrete steps to the existing entrance. Remove existing temporary door on southern elevation as nominated on the TKD Architects' drawings and make good original arch and reveal. | | |



- In addition to the above nominated elements, Salvage all early light fitting and fixtures including luminaires, fans, speakers, glazing to sawtooth roof, pulleys/roller wheels, timber loading door with railing equipment above, and sound corrugated steel roof sheeting for reuse and reinstatement as nominated by the heritage architect.



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| | <ul style="list-style-type: none"> Undertake demolition works to external facades as per approved demolition drawings & as nominated on the TKD Architects drawings. Ensure adjacent fabric that is to be retained is not damaged. Salvage bricks, original/early window and door joinery where possible for reuse elsewhere or discarding for recycling at second hand conservation shops in consultation with the Heritage Architect. | | |
| | <ul style="list-style-type: none"> Inspect roof structure including steel trusses, corrugated iron sheeting and glazed panels for rusting and deterioration, and remove significantly rusted and deteriorated sheeting and replace with new sheeting as detailed in section 3.4 above in consultation with the Heritage Architect. | | |
| | <ul style="list-style-type: none"> Remove all redundant flashing, re-point brickwork as required. Where flashing could not be removed without damage to the brickwork then cut the flashing flush to the wall and make good surrounding brickwork. | | |
| | <ul style="list-style-type: none"> Remove air-conditioning condenser units, stormwater element and metal basin attached to the southern façade of the Mill building with utmost care. | | |
| | <ul style="list-style-type: none"> Demolish the concrete slab as much as required as nominated on the drawings for the installation of the new underground car park. | | |
| | <ul style="list-style-type: none"> Remove the remnant paint stains from the northern end of the western façade by using Peelaway or Heritage 1 in consultation with the Heritage Architect. Provide a sample removal (20x20mm) for inspection and approval of the method and product used. Also remove any concrete residue from the northern end of the western façade with utmost care. Provide sample of removal for the Heritage Architect's approval prior to proceeding with the rest of the removal, as noted above. | | |
| B. <i>Reconstruction of significant elements and Construction of new additions to the Building</i> | <ul style="list-style-type: none"> Reconstruct the timber framed windows using new timber. Construct new timber double-hung sash windows and install to the window openings of the western (Shepherd Street) elevation and the two reinstated window openings on southern elevation as nominated on the TKD Architects drawings for other elevations in accordance with the specifications for joinery in section 3.3 of this Schedule. | | |
| | <ul style="list-style-type: none"> Repair existing cast iron downpipes and check over existing gutters for deterioration, and install new round painted galvanised steel downpipes and D-gutters with traditional rainwaterheads in the existing locations using the existing fixing points. Install new sumps to box gutters of existing roofs with new overflow pipes through south façade (in accordance with Australian Standards). Provide samples and Seek approval of the Heritage Architect for the new gutters, downpipes and rainwaterheads before purchasing the required full amount of these elements. | | |
| | <ul style="list-style-type: none"> Construct the internal fit-out for amenities, preparation areas and deliveries as documented in the TKD Architects' drawings. Ensure the installation of amenities and | | |

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| | associated plumbing do not impact on the southern wall of the building. | | |
| | <ul style="list-style-type: none"> Remove flaking paint from the internal walls and expose brickwork along the western facade followed up with re-pointing in accordance with the heritage specifications in section 3.2.1 of this Schedule. Do not paint any previously unpainted walls including the walls that are nominated for paint removal. | | |
| | <ul style="list-style-type: none"> Repair existing concrete slabs around the site that are being retained, and provide new paving to the Shepherd Street footpath and south boundary maintenance access corridor. | | |
| | <ul style="list-style-type: none"> Follow structural engineer's instructions for the installation of new reinforced concrete slabs and incorporate water-stops into new slab junctions within existing structure. | | |
| C. Catch-up Maintenance | <p>Repair all cracks and holes on the brickwork using</p> <ul style="list-style-type: none"> For cracks larger than 15mm: Westox Crack Stitching Bar and Westox Grouting Mortar or Helifix stitching products (HeliBar and HeliBond) where necessary. For small to medium cracks (hairline to 15mm): Epoxy Resin <p>Consult the Structural Engineer before making decision on the type of treatment.</p> <ul style="list-style-type: none"> Cut out the cracks with a masonry grinder to form square edged slots, and remove all dust and debris before application. | | |
| | Re-point all mortar joints in particular where there is unsound, loose or missing mortar in accordance with the specifications noted in Section 3.2.1 and 3.2.2 above. | | |
| | Replace broken bricks where deteriorated more than 1/3 of the surface, discoloured or dislodged with salvaged bricks from the site. Use of salvaged bricks is preferred over matching new bricks. | | |
| | Clean brick walls with low-to-medium pressure water to remove dirt or other pollutant soiling. Start with a very low pressure (100 psi or below), and progress as needed to slightly higher pressure - no higher than 300-400 psi. Scrub with natural bristle or synthetic bristle brushes. Do not use metal brush. Before beginning the water cleaning, make sure that all mortar joints are sound and that the building is watertight. See section 3.2.1 for further details. | | |
| | Undertake inspection of all stone corbels with the Heritage Architect and repair, redress and repoint as nominated. Make good surrounds as required. | | |
| | Inspect all areas showing rising and falling damp evidence for source and rectify as necessary. Use of Westox products such as Cacocon for removal of salt is recommended. | | |
| | Remove all plant growth from walls and around the base of the building in particular southern elevation. Carry out landscape works in accordance with the approved landscape plan incorporating the salvaged roof trusses as per the design by ASPECT Studios. | | |

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| | <p>Check over all internal walls that will be retained and preserved for any cracked, fretting render, flaking paint and repair in accordance with the Heritage Architects' and structural engineers' specifications.</p> | | |
| | <p>Repair all damaged windows sills both internally and externally to match existing or as specified by the Heritage Architect.</p> | | |
| | <p>Repaint interiors as specified. Remove paint where nominated in consultation with the Heritage Architect using non-abrasive method such as Peel-Away.</p> | | |
| | <p>In general the works nominated above apply to all facades. Below are some specific works for each facade associated with the adaptive reuse and conservation / repair works:</p> <p>Western Elevation:</p> <ul style="list-style-type: none"> Install new roof frame & profiled metal sheeting to match existing profiles at the northern end (current Shepherd Street entrance) use salvaged corrugated metal sheeting as many as possible, and install new profiled metal wall sheeting underneath as detailed in the TKD drawings. Restore timber door to forth bay from south end (see image below). Install new fold up door to the existing loading dock opening after removal of the existing roller door. Install decorative steel fence to southern end to secure the rear access passage of the site for maintenance and energy company access. Design and details of the fence to be approved and signed-off by the Heritage Architect. Traditional style vertical grilled fencing should be considered. Make good walls, window reveals and undertake repairs as detailed under general works above. <div data-bbox="579 1267 1224 1890">  </div> | | |

Eastern Elevation:

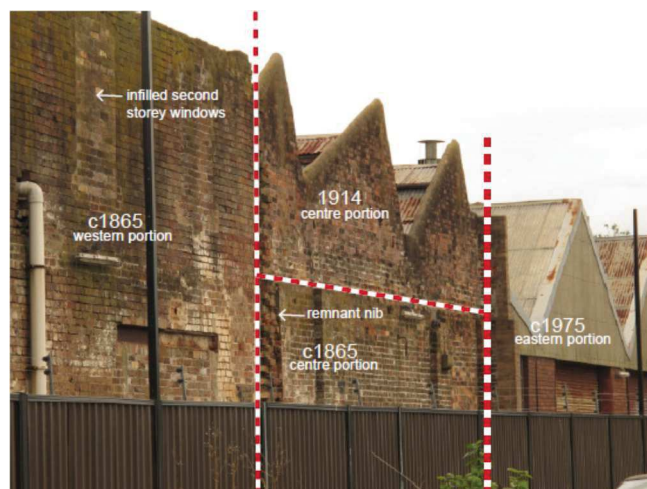
- Following removal of the 1970s bays, repair existing masonry walls at the southern end.
- Install new roof frame & profiled metal sheeting to match existing profiles at the southern end (current recessed bay with no roof) use salvaged corrugated metal sheeting as many as possible, and install new profiled metal wall sheeting underneath as detailed in the TKD drawings.
- Install new operable glass doors with fixed glazing above.
- Install new roof frame & profiled metal sheeting (and glazing) to match existing profiles at the northern end, use salvaged corrugated metal sheeting as many as possible, and install new profiled metal wall sheeting underneath as detailed in the TKD drawings.
- Make good walls and undertake repairs as detailed under general works above.


Northern Elevation:

- Install fixed aluminium framed double glazing above operable glazed walls and between webs of trusses on the North perimeter of the building. Aluminium glazed framed doors should also be installed to the east and north perimeter of the building.
- Make good walls and undertake repairs as detailed under general works above.

Southern Elevation:

- Remove existing air-con condenser units and stormwater element, and box gutters and install new overflow pipes for new box drain sump and internal rainwater pipes.
- Make-good all walls where box gutter is no longer required and where redundant services and plants/air-con units are removed. Ensure the fragile bricks of c1865 portion of the facade are treated with utmost care (see image below for various periods of construction marked up by Graham Brooks & Associates).
- Ensure plant growth is treated to stop any regrowth.



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| |  <p>Roof:</p> <ul style="list-style-type: none"> Ensure all sound original/early corrugated metal sheeting has been protected and preserved. Salvage sound roof sheeting including glazing from the 1970s sections that will be demolished for reuse where nominated by the Heritage Architect. Make-good roof for the protection of the building as per specifications in sections 2 and 3 of this Schedule. <p>Interiors:</p> <ul style="list-style-type: none"> Undertake the nominated works under general works noted in previous rows above with utmost care. Ensure all nominated elements for salvage are stored in a safe place and marked-up for reuse in accordance with the Heritage Architect's instructions. | | |
| D. <i>Preservation of significant elements</i> | Retain and preserve all original and early fabric and structural elements of the former Mill building as nominated on the Architects' Drawings. These include face brick and stone corbels/sills finishes, all external architectural features and detailing, salvaged timber window frames as nominated, steel trusses, sawtooth roof form and sound corrugated iron roof sheeting, timber beaded ceiling soffit, remnant industrial pulleys and light fittings. | | |
| | Carefully remove early light fitting and fixtures including luminaires, fans, speakers, glazing to sawtooth roof, pulleys/roller wheels, timber loading door with railing equipment above, timber door to west elevation and sound corrugated steel roof sheeting for reuse and reinstatement as nominated by the heritage architect. Salvage and relocate to an onsite secure storage for conservation before being reinstalled in original location or nominated location. | | |
| | Protect in-situ roof framing trusses, metal roof sheeting, translucent roof glazing, external masonry walls to south and west, joinery doors, frames and trims. | | |
| | Restore all original elements of the former Mill building as nominated in the drawings and specified above including but not limited to facebrick facades to the west and south, steel trusses, surviving timber window frames, roof sheeting, industrial pulleys and light fittings. | | |
| E. <i>Restoration</i> | Restore salvaged corrugated iron roof sheeting for reuse as part of future internal refurbishment (or as nominated elsewhere within the site). | | |

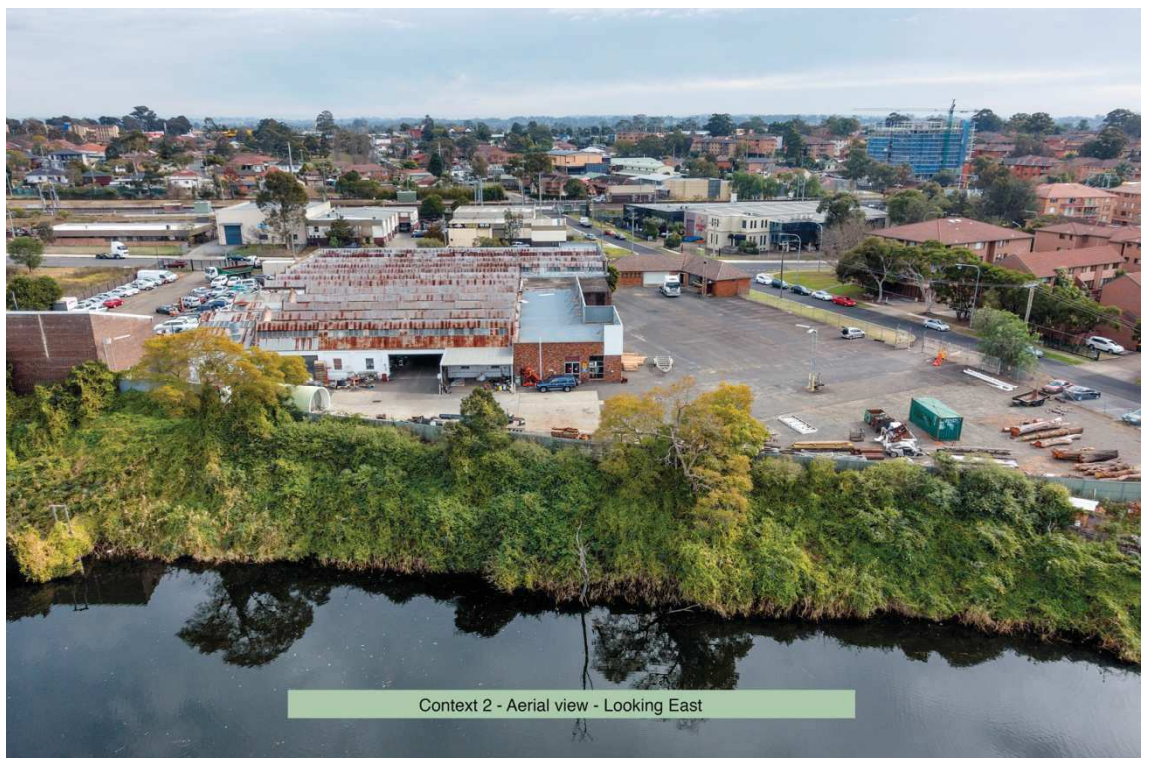
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| | Restore salvaged steel trusses for reuse as part of the landscape treatment and elsewhere within the site or the building for interpretive purposes. | | |
| F. <i>Interpretation</i> | Implement the recommendations of the Revised Interpretation Strategy by Graham Brooks & Associates dated November 2014, and where amended during carrying out of the approved works with additional interpretive design including public art recommendations by City Plan Heritage in consultation with the architects TKD and Woods Bagot. | | |
| | Undertake graphic design options for the panels and plaques as and where required in response to the Interpretation Strategy in consultation with the Heritage Architect. | | |
| | In principle, the former Mill building's extant remnant fabric, sawtooth roof and steel trusses, façade fenestration, bricked-in openings on southern facade, overall form, internal open plan workshop areas and main factory space, and industrial pulleys and finishes will be the main interpretation aim and material. Therefore ensure no significant fabric damaged during any future works. | | |
| G. Adaptation | <p>The majority of the works for adaptation have been noted in previous sections and briefly repeated here for further clarification.</p> <p>Western Elevation:</p> <ul style="list-style-type: none"> Reinstate/reconstruct 10 timber window frames within the existing window openings using all new timber frames and new timber framed double-hung sash windows to match traditional profile. Details of the window frames including shop drawings to be provided by the carpenter for approval of the Heritage Architect prior to manufacturing. Repair and make good existing timber service door in Bay 9. Insert new glazed frame to replace the existing roller door to loading dock opening in Bay 12. Install new roof frame & profiled metal sheeting to match existing profiles at the northern end, use salvaged corrugated metal sheeting as many as possible, and install new profiled metal wall sheeting below maintaining the existing opening. Allocate substation easement outside the deliveries dock along the street edge of the paved area of the site. <p>Eastern Elevation:</p> <ul style="list-style-type: none"> Remove nominated four sawtooth roof bays from the eastern side. Install glazed frames to the opening as nominated. Clad walls at both southern and northern ends with profiled metal wall sheeting as nominated on the TKD Architects drawings. Provide external seating and associated furniture along southern elevation. | | |

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| | <p>Northern Elevation:</p> <ul style="list-style-type: none"> Install glazed walls as nominated on the TKD Architects drawings following removal of later walls and roller doors. Ensure northern ends of the roof trusses are made weathertight with glazing between the webs. Provide external seating and associated furniture along northern elevation. <p>Southern Elevation:</p> <ul style="list-style-type: none"> Ensure all restoration and repair works nominated in previous sections above carried out with utmost care. Reinstate two nominated window openings at the western end of the façade to match the timber double-hung window frames of the western elevation. Reinstate the arched door opening as nominated on TKD Architects' drawings and install a new solid core door. No other new opening or penetration is allowed unless nominated or instructed by the Heritage Architect. <p>Roof:</p> <ul style="list-style-type: none"> Remove the nominated four bays of the sawtooth roof trusses and corrugated roof sheeting and salvage for reuse for repairs, patchwork and as interpretive element within the landscape. <p>Interiors:</p> <ul style="list-style-type: none"> Reinstate the open space to the former workshop and factory building following removal of existing fitout and redundant materials/walls. Install new amenities and service benches, dry stores, delivery store, office, cool room, and associated preparation areas along the southern perimeter over two bays (additional details to be provided as part of a separate internal fit-out Development Application), and to the eastern end of northern bay. | | |
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Attachment A: Drawings + Images - before the unauthorised works

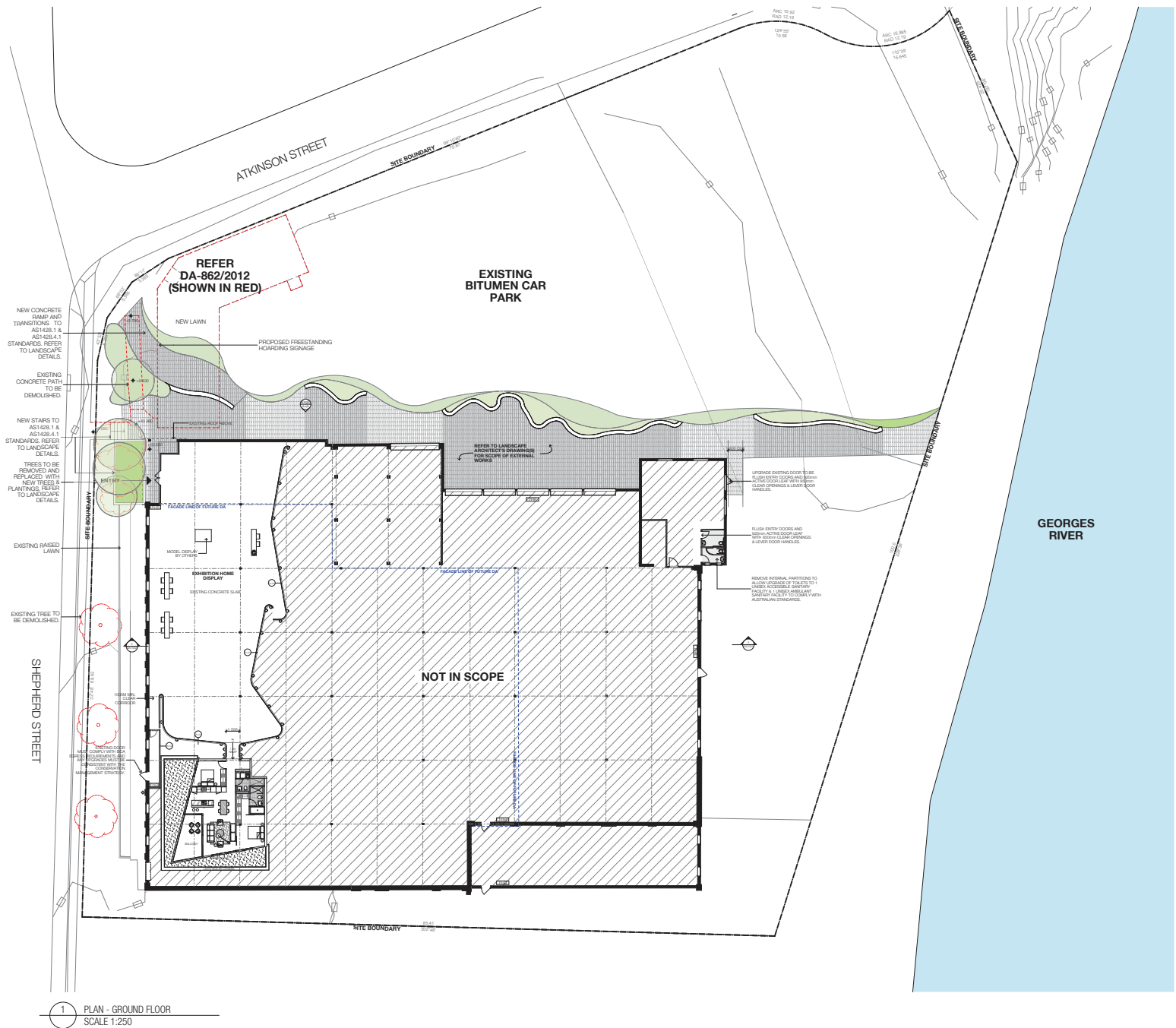
All images are by Chris Bennett of Evolving Picture







Attachment B: Drawings - current conditions



Copyright
WOODS BAGOT PTY LTD ABN 41 007 702 174
None
CONTRACTOR MUST VERIFY ALL DIMENSIONS ON SITE BEFORE
COMMENCING WORK OR PREPARING SHOP DRAWINGS. DO NOT
SCALE DRAWING.

B DA SUBMISSION
A INFORMATION

05/11/2014
04/11/2014

Date App'd Rev Description

Date App'd Rev Description

Date App'd

Project
20 SHEPHERD ST LIVERPOOL

20 SHEPHERD STREET
LIVERPOOL, NEW SOUTH WALES

Client
CORONATION PROPERTY CO

Coronation Property Co Pty Ltd
9 - 25 Commonwealth Street

Drawing title
PROPOSED EXHIBITION HOME
PLAN

Date generated
5-11-14
Scale
1:250
A1 sheet size

Checked
HK
50mm on original

Approved
ZP
50mm on original

WOODS BAGOT.
AUSTRALIA
MIDDLE EAST
NORTH AMERICA

Project number
120530
DA
Drawing number
DA1001 B
Revision



Attachment C: Drawings - proposed design with conservation & repair works

