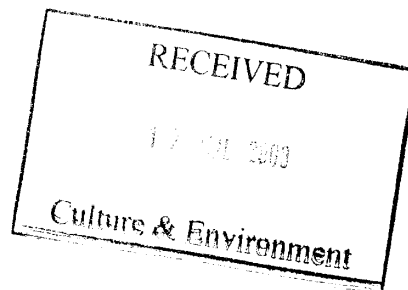




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16th July 2009

Dear Sir/Madam,

King's Cross Station Enhancement: Application no. 2006/3394/L Application for approval of details reserved by condition.

Application site: King's Cross Station, Euston Road, London, N1 9AP.

Original Application Number(s): 2006/3394/L

Application Ref:

Network Rail reference: Western Range Demolition

Summary

Listed Building Consent (2006/3394/L): Condition 4 – Protection Works

I write in relation to the application to discharge the conditions of the above consent relating to the demolition works at King's Cross Station as part of package 6.

As part of the submission the following document was submitted in order to discharge condition 4 of the consent, which relates to protection works.

- King's Cross Package 6. Proposal for Labelling & Protection of Heritage Items Doc Ref KXP6/N374/WPP/LBMS/WRB/00005 Rev 00 dated 27.04.09

The document details the proposed precautions to be taken in order to protect the historic features of the building against accidental loss or damage, or theft during the building work. Since the submission of the document it has become apparent that details of precautions to protect against theft had been left out of the document and therefore I would be grateful if you could accept the below document as a replacement and determined the application based on this document.

- King's Cross Package 6. Proposal for Labelling & Protection of Heritage Items Doc Ref KXP6/N374/WPP/LBMS/WRB/00005 Rev 02 dated 28.04.09

If you have any queries or require any further information please do not hesitate to contact me on 020 7904 7419.

Yours sincerely



Steve Taylor

Senior Town Planner (London Stations)

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CC. Simon Hickman. English Heritage 1 Waterhouse Square, 138 - 142 Holborn, London, EC1N 2ST

Listed Building Method Statement

King's Cross Package 6

Proposal for Labelling & Protection of Heritage Items

					Acceptance on behalf of Network Rail		
Version	Prepared By	Date	Approved by Nick Glaze	Date	Required Y/N	Accepted by	Date
00	A. Arnold	08/04/09		22/04/09	Y		
01	A. Arnold	23/04/09			Y	Z Nichols	28/04/09
02	K. Watts	14/06/09	<i>Watts</i>	<i>14-6-09</i>	Y		

Comments and observations

This report relates globally across Package 6 and is also applicable for TSF works. Labelling is required for both salvage items to be stored by Network Rail and items returned for reinstallation/ reinstatement.

Protection measures are applicable for all vulnerable in-situ and items being stored.

This document references the following documents:

- Salvage Strategy Approved Document
ENG-REP-JMP-G5-SWNS-0006-2.0
- Salvage Strategy - Supplementary Document
ENG-REP-JMP-G5-SWNS-0006-2.0
- Architectural Specification C90 "Removals / Alterations"
ENG-SPE-G5-OAP-KX6-CBSA-1018

Reviewed by:

Claire Mansfield - KXP6 Design Manager, Katherine Watts – JMP, Zen Nichols - NR

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1.0 Introduction

This Listed Building Method Statement tables Taylor Woodrow's (TW) intent for labelling, tracking and protection of all heritage items on package 6 that are being removed for safe storage during disruptive works prior to reinstatement. This proposal explores labelling for all items of historic interest.

1.1 References

Consent 2006/3394/L **Condition 4** requires; "precautions shall be taken to secure and protect the interior features against accidental loss or damage, or theft during the building work." Further "no such features shall be disturbed or removed temporarily or permanently except as indicated on the approved drawings or with the prior approval in writing of the Council, advised by English Heritage. Particular regard should be given to the following items:

- a. Chimneypieces and fire grates.
- b. Decorative ironwork, including stair balustrades.
- c. Original floor materials."

Consent 2006/3394/L **Condition 33** requires; "no works authorised by this consent shall take place until method statements detailing the means of removal, labelling and storage of all historic items to be moved or removed from the existing buildings has been submitted."

2.0 Labelling Proposal

Taylor Woodrow is intending to use a labelling system that utilises the code already in place for the room recording sheets derived from the room numbers. Details of the numbering system to be used can be found in Appendix 1.

Due to the large number of rooms within the WRB, over 200, this numbering system will be fully utilised throughout the project with each room having a label clearly identifying its number and location. A sample of the coding for the labels can be found in Appendix 2. This code is fully derived from the JMP numbering system on the drawings submitted for planning. If a item is placed into a box and it is important that the object is stored the correct way up, a "this way up" label will be placed on the box.

Through these systems rooms will be identified, allowing heritage items associated with the room to be quickly pin-pointed and easily refitted if necessary. The historic items will be labelled after they have been protected so the label can be read easily. The label will take the form of white duck tape stuck to the protective packaging and the item number put on the duck tape using black permanent marker. Two labels will be stuck to each item (one on each side) this will prevent the item from not being identified through loss of label, reduce manual handling whilst turning an item around to read the label, and reduce potential associated risk of damage.

As well as the basic room information as contained in the room locating numbering system, information about the item will be placed on the object. This information will consist of item reference numbers, grid line of item and if the item is split into multiple parts like an architrave for example the label will contain part 1 of 3, 2 of 3 etc. Additional information to assist helping identify the exact item location could also be added such as tread number for staircases. A photo of the contents in the packaging will be placed on the outside, where applicable to allow the item to be identified.

This system meets the requirements of JMP specification C90.1107 to provide a register for all items and materials destined to be retained in ownership by the client. It also has the advantages of being:

- Quick and easy to use.
- Hard wearing against the element and conditions it will be subject to.
- Cost effective and flexible
- Easily replaced by operatives on site if the label becomes damaged.

3.0 Tracking Items

Tracking of items labelled using the above system above will be done through an Excel spread sheet register. This spread sheet will contain all information associated with the heritage item through the label number. The door/window number, grid line location, directional location, and a description of the item will all be present on the spread sheet. Where photographs have been taken, a reference to the file name where the picture is located will also be added. An example of the spread sheet is contained in Appendix 3.

English Heritage and London Borough of Camden as well as any other organisations/personnel will be able to request an up-to-date copy of this database and picture files. This will allow them to see the location of all heritage items as they are removed from the building and, where necessary, site. It will also assist Network Rail to find suitable locations for salvage items.

The labelling as above will enable potential recipients of salvage items within the heritage community to relate in context of the original placement at Kings Cross.

3.1.1 Storage On Site

Most items removed from its location within the building will be stored on site. It is proposed that a room on each floor will be dedicated to short-term storage of heritage items removed from the same floor. This will minimise transportation and the associated possibility of damage. The second floor of the Northern Building will be used for longer term storage as no works will be occurring in this area until 2011.

All storage areas will be locked and monitored for security during the works. The areas selected will be dry, clean and well ventilated. Joinery and timber items will be protected from damp and distortion and either individually wrapped or laid on 1500 gauge polythene sheet on 12mm ply (as described in the Salvage Strategy).

3.1.2 Storage Off Site

Larger items and materials to be salvaged will be stored off site.

The database will identify the location of the item, as they are removed from site and sent to storage. The off-site logistics facility will provide a delivery identification number for each object and these will be added to the spreadsheet where applicable.

When items are required back on site from storage, this reference number will be used to request the object's return. When refurbishment is required off site the company carrying out the work will unwrap items one at a time and re-label in an inconspicuous area using the id code to allow for items to be repaired/ renovated. After the item is refurbished it will be placed back in its protective wrapping and relabelled on the packaging.

4.0 Protection Measures

Prior to protection a visual assessment of condition of each item will be made to ensure it is free from damp, contamination, rot etc. If any of these conditions are found specialist advice will be obtained. Large components will also be assessed for manual handling etc.

Heritage items will either be:

- Protected/ Repaired in-situ.
- Protected/Repaired locally within the building.
- Protected/Repaired off site at storage facility or repair specialist.

If the item is being removed from site and not being returned, responsibility for the object is handed over to NR from TW as it leaves site.

Before any action is taken each heritage item will be assessed and the best course of action determined and recorded.

All items that are flammable and do not consist of class 0 materials will be protected against fire as per specification clause C90.1107. If the material is non flammable/ class 0 then no additional measures will be taken to protect the item against fire.

Operatives will be given regular toolbox talks to ensure they understand the importance of protecting heritage items and the measures TW have put in place to do so. All items will then be protected as detailed below.

4.1 Joinery

4.1.1 Doors

Doors in areas of heavy usage, e.g. entrance and circulation routes, will be removed for protection prior to work commencing in the area. Other doors will be removed where required for repair.

Doors to be removed will be wrapped in protective material, such as Correx to ensure no damage occurs during handling. Before the doors are removed all protruding ironmongery will be removed and placed into boxes. These boxes will have the same number on the label as the door from which they were taken to confirm identity. The wrapped doors will be put into soft wood framed racking to maintain air movement to all surfaces to avoid distortion as per the Salvage strategy. Any doors left in situ will be protected against impact with Correx or similar depending on vulnerability.

4.1.2 Windows

Windows will be repaired in-situ if possible as this eliminates the potential for damaging the item during the removal process. If it is not possible for the window to remain in-situ the window will be removed, wrapped and stored in a similar fashion to the doors.

Protection will be provided in the form of timber box outs. These will be installed in locations, where work is occurring that could cause possible damage to the window, and/or where impact damage is possible. Tool Box Talks will be held for all trades working around the windows, such as bricklayers and scaffolders to reinforce these control measures.

4.1.3 Other Historic Joinery

Quirk bead, post boxes, notice boards, skirting, dado rails, picture rails, architraves, floor boards and panel boarding that need to be removed will be stored in dedicated storage areas on site (see 3.1.1 Storage On Site). Items removed in long lengths will be reviewed on an individual basis and either racked or stored in bundles following review.

Items to be transported to storage off-site for salvage will be placed into coffin boxes where length of item permits. The boxes will then be filled with polystyrene packing chips, as necessary, to prevent delicate items making contact with the box. The precise method of storage and packing for transportation will be assessed for individual items and tailored to their needs.

Where protection is required in-situ skirting, architraves and door linings, panel boarding, post boxes and notice boards will be surrounded with a box out. Care will be taken over the size and design of the boxing in order to prevent damage to the joinery when the box is removed and replaced.

4.2 Staircases

The staircases remaining in-situ will be boxed out to ensure full impact protection is provided. Where the stair is to be used by contractors this will include tread, balustrade and handrail protection, constructed of Sterling board or similar.

Staircases to be dismantled will be stored in different ways depending on the materials they are comprised from. Stone treads will be placed into a coffin box with the sequence number printed on the box. These boxes will then be stacked in a crate pallet packed in layers depending on weight.

Timber stair cases will be dismantled and place in coffin boxes in the same manner as the other heritage joinery. This will provide both impact and fire protection and ensure the specification and salvage strategy are conformed to.

4.3 Bricks and Stonework

In accordance with the salvage strategy clean bricks and stonework to be salvaged from the demolition work will be stacked into crate pallets and sorted by brick type, size and location. This will prevent any damage coming to the bricks or stonework from forklifts/Hi abs when loading and unloading the transport vehicles, and allow bricks to be easily reused, without having to look through crates trying to find the correct type of brick. Once the bricks or stonework has been stacked in crate pallets clean film will be used to wrap the pallet. This will provide frost protection as per the salvage strategy and will also ensure the bricks or stonework does not fall off pallets. The pallet will then be labelled and recorded using the system explained earlier in the document.

4.4 Decorative Metalwork

All decorative metal work to be removed will be wrapped in cushion wrap and placed into protective boxes as detailed in the historic joinery section. However the majority of metalwork needs to be protected in-situ, this will be achieved through the use of protective wrapping materials such as cushion wrap and, if necessary, box out around the item.

4.5 Fireplace Surrounds

Fireplace surrounds remaining in-situ will be boxed out with Sterling board or similar. Care will be taken over the size and design of the boxing in order to prevent damage to the fireplace surround when the box is removed and replaced.

Fireplace surrounds removed temporarily will be stored in coffin boxes with timber spacers between pieces. The boxes will then be filled with polystyrene packing chips, as necessary, to prevent movement within the box.

4.6 Original Floor Materials

Where original floor materials are exposed, surface protection will be installed prior to works commencing in the area. Depending on the nature of the material and the weight of traffic the floor protection will be varied. A judgement will be made for all areas based on the following criteria:

- Weight of traffic (frequency of pedestrian traffic, delivery paths for materials within the building)
- Vulnerability of floor material (surface durability, structural capability)

Particular protection will be given to the York stone in the corridors because of its heritage value and as pedestrian traffic is likely to be high in the corridors. Contractors will be instructed to avoid impact with heavy objects during the works to prevent additional cracking. The York stone will be protected with plywood sheeting or similar. Exposed timber floorboards in areas of light traffic will be covered with plastic sheet or similar to protect against surface abrasion and wear.

4.7 Protection against Damage to Adjacent Materials

In areas where heavy work is to be carried out, extra care will be taken to protect the adjacent building fabric. For example, in the Southern Wing seven fireplace surrounds at first floor level will be removed temporarily during the works in order to protect them whilst the extensive needling and demolition work is carried out.

Care will be taken to avoid damage to joinery etc. when work is carried out in an adjacent area. For example, it may be necessary temporarily to remove an adjacent skirting prior to the dismantling of a fireplace surround.

4.8 Protection against Theft

Site security will be carefully controlled to protect against the theft of heritage items. The site has a security guard at all times with a controlled card access and exit turnstile. Two security guards are on duty at night. Following induction each contractor will have a sticker on their hard hat which states the area of the site they are allowed to enter. A permit system will work at all times and every contractor will carry a permit stating the rooms he/she is allowed to enter. Spot checks will be carried out to ensure this system is adhered to. Contractors breaching the rules will be sent off site. See Appendix 4 Protection Control Matrix.

A photographic inventory of every room has been carried out so it will be easy to check if something is missing or damaged.

4.9 Loose Items

Any loose items found on site and any further loose items exposed during opening up works will be labelled in accordance with the strategy described in this document and handed to Network Rail for review and storage.

5.0 Appendix

5.1 Appendix 1 Numbering System

**KINGS CROSS REDEVELOPMENT PROGRAMME
PACKAGE 6
WRB ROOM RECORD SHEET NUMBERING SYSTEM**

Numbering Order: KXP6/N374/WRB/ Zone number/ Building/ Level/ Room Number

Zone Numbers	Abbreviation
Zone 1	Z1
Zone 2	Z2
Zone 3	Z3
Zone 4	Z4
Zone 5	Z5

Building	Abbreviation
Northern Building	NB
North West Building	NWB
Link Building	LB
Northern Wing	NW
Bomb Gap	BG
Old Booking Hall	OBH
Southern Wing	SW
Suburban Train Shed	STS
Old Parcel Yard	OPY

Level	Abbreviation
Basement	B
Ground Floor	G
First Floor	1
Second Floor	2
Third Floor	3
Loft Floor	L
Roof	R
Mezzanine	MZ

Example:

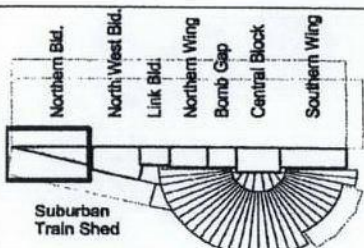
Z1/NB/1/150A/information about item

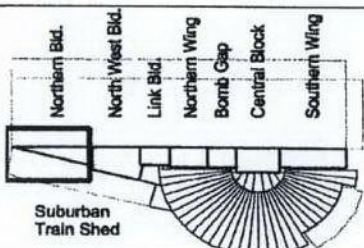
This room is in: Zone 1/Northern Building/First Floor/ Room 150A /information about item

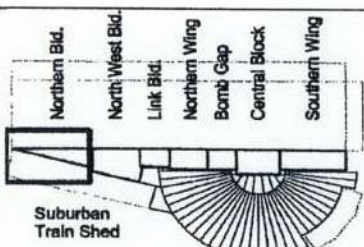
5.2 Appendix 2 Sample of Room Labels

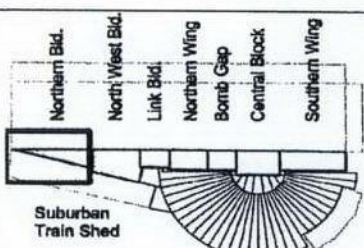
KINGS CROSS REDEVELOPMENT PROGRAMME PACKAGE 6

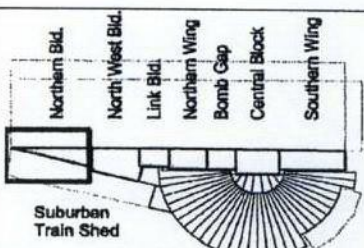
Sample of Room Labelling to be Utilised in WRB

Zone	ONE	Level	1	
Building	Northern Building	Room No.	149	

Zone	ONE	Level	1	
Building	Northern Building	Room No.	150A	

Zone	ONE	Level	1	
Building	Northern Building	Room No.	150B	

Zone	ONE	Level	1	
Building	Northern Building	Room No.	150C	

Zone	ONE	Level	1	
Building	Northern Building	Room No.	150D	

5.3 Appendix 3 Register

[illegible]

5.4 Appendix 4 Protection Control Matrix

This document is extracted from the Demolition Method Statement (KXP6/N374/WPP/LBMS/WRB/00006) and refers to it throughout.

Reference	Hazards/Risk to heritage structure	Risk	Activities	Control Measure	Relevant Documents
1	Fire	Damage to heritage structure from fire. Damage to heritage structure from smoke. Damage to heritage structure from extinguishing fire.	<ul style="list-style-type: none"> • Heritage joinery • Stair cases • Removal of services (undertaken by NGBailey) 	<ul style="list-style-type: none"> • Hot works permit • WRB fire strategy • Temporary fire system • Fire-rated protection to heritage items • Assessment of appropriate use of extinguishers 	<ul style="list-style-type: none"> • Hot works Permit • WRB fire strategy • Labelling and protection LBMS
2	Flooding	Flooding into basement and ground floor areas affecting stability and damaging heritage items.	<ul style="list-style-type: none"> • Gable End demolition • Floor removal • Removal of services (undertaken by NGBailey) 	<ul style="list-style-type: none"> • Pump available during rain storm events or flood event • Construction methodology maintains protection to vulnerable areas at all times • Control of rate of water flow used for damping down • Services to be fully drained down prior to removal 	<ul style="list-style-type: none"> • Task specific WPP's

Reference	Hazards/Risk to heritage structure	Risk	Activities	Control Measure	Relevant Documents
3	Inclement Weather	<p>Damage from precipitation to internal heritage structure.</p> <p>Damage to internal heritage structure – internal exposed to external environment.</p> <p>Damage to structures caused by severe winds.</p>	<ul style="list-style-type: none"> •Slate removal (including lead) •Roof demolition •Openings in the façade •Temporary construction openings 	<ul style="list-style-type: none"> •Sheeted Scaffold •Temporary roof •Method of protection for heritage items •Small sections of lead removed at a time while area protected •Secure windows, doors and any loose items on roof/scaffolding in the event of strong winds 	<ul style="list-style-type: none"> •Labelling LBMS •Soft Strip WPP

Reference	Hazards/Risk to heritage structure	Risk	Activities	Control Measure	Relevant Documents
4	Accidental Damage	<p>Poor handling of heritage items.</p> <p>Impact and/or abrasion to in-situ items during construction activities.</p> <p>Incorrect removal of heritage items.</p>	<ul style="list-style-type: none"> • All removals and demolition 	<ul style="list-style-type: none"> • Labelling system • Physical barriers to items of heritage value left in-situ. • Rooms secured outside of working hours • Training and competent workforce • Restrictions on access to work areas • Protection to items once removed 	<ul style="list-style-type: none"> • Labelling LBMS • Permit to Work

Reference	Hazards/Risk to heritage structure	Risk	Activities	Control Measure	Relevant Documents
5	Theft	Heritage items stolen from stores. Heritage items stolen in-situ.	<ul style="list-style-type: none"> • Historic joinery • Fire surrounds • Staircases • Stonework • Atrium partitions 	<ul style="list-style-type: none"> • Site Security plan including rooms secured outside of working hours and a secure site hoarding • Protection to heritage items once removed • Control of access/egress to site • Access to heritage item store to be restricted to managers 	<ul style="list-style-type: none"> • Site Security Plan • Labelling LBMS • Salvage Strategy
6	Vibration	Damage to retained structure. Damage to adjacent structure.	<ul style="list-style-type: none"> • All demolition 	<ul style="list-style-type: none"> • Low vibration equipment and hand tools • Structural Monitoring • Temporary works plan • Trained and competent work force 	<ul style="list-style-type: none"> • Temporary Works Register and Plan • MoLAS Monitoring Document

Reference	Hazards/Risk to heritage structure	Risk	Activities	Control Measure	Relevant Documents
7	Dust	Staining to façade from dust settling and getting wet. Staining to internal heritage structure from settled dust getting damp.	<ul style="list-style-type: none"> • All activities 	<ul style="list-style-type: none"> • High standard of housekeeping • Damping down • Reduce working heights for collection of demolition waste material • Physical protection to items of heritage value 	<ul style="list-style-type: none"> • TW Environmental Management Plan
8	Impact	Plant impact on retained structure. Material impact when removing waste/heritage items.	<ul style="list-style-type: none"> • Gable end demolition • Openings in facades • Roof demolition • York stone removal 	<ul style="list-style-type: none"> • Impose restrictions on movement of site plant • Trained and competent work force • Physical barriers • Temporary supports in place before commencing work • Minimise the lifting of material over or through the structure 	

Reference	Hazards/Risk to heritage structure	Risk	Activities	Control Measure	Relevant Documents
9	Stability	Heritage structure collapse in part or as a whole. Movement causing damage to retained heritage items. Collapse of retained item due to inadequate support.	• All internal and external demolition	• Temporary works procedure including permit to load • Approved methodology • Competent designers and sub-contractors	• TW Temporary Works Register and procedure • Approved task specific WPP's
10	COSHH	Prevention of heritage removal	• All removal activities	• Asbestos and Anthrax survey (Level 3) and management plan • Lead survey and management plan • Trained workforce and management team	• McGee Asbestos and Anthrax survey • Lead Survey • TW Environmental Management Plan
11	Explosion	Heritage structure collapse in part or as a whole.	• Removal of services	• Services disconnected prior to works commencing • Unexploded ordnance dealt with by specialists if discovered	• NG Bailey WPP • Intrusive survey report

Reference	Hazards/Risk to heritage structure	Risk	Activities	Control Measure	Relevant Documents
12	Unnecessary Removal	Prosecution for working outside of permitted works on a Grade 1 listed structure.	<ul style="list-style-type: none">• All removal activities• All demolition activities	<ul style="list-style-type: none">• Salvage strategy• Competent management and supervision• Clear identification of items to be removed• Items to be assessed before work starts	<ul style="list-style-type: none">• JMP Salvage strategy