



-7 SEP 2017

Crossrail Act 2008

Crossrail Ltd

London Borough of Hillingdon

Hayes & Harlington Station

**Schedule 7 Plans and Specifications
Written Statement for Information**

Submission Ref: HIL/3/7/NR

CRL Doc No.: CRL1-NRI-T-QAP-CR061-50031

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1 Introduction

1.1 Background Information

Scheme	Crossrail
Applicant	Crossrail Limited
Applicant Address	25 Canada Square, Canary Wharf, London E14 5LQ (Correspondence c/o Jonathan Binks, Network Rail Crossrail Programme, Enterprise House, 167-169 Westbourne Terrace, London W2 6JX)
Site Address	Hayes & Harlington Station Station Road Hayes Greater London UB3 4BX
Description	Plans and Specifications submission under Schedule 7 of the Crossrail Act 2008 for works at Hays and Harlington Station, authorised by the Act

1.2 Terms of Reference

This written statement is compiled in accordance with the Crossrail Planning Forum Notes 1 and 2 as required by the planning regime established under Schedule 7 to the Crossrail Act 2008. This statement provides the London Borough of Hillingdon with information to assist with the determination of the Plans and Specifications submission in relation to the works at Hayes and Harlington Station.

1.3 Introduction to Crossrail

Crossrail is a major new cross-London rail link project that has been developed to serve London and the South East of England. Crossrail will support and maintain the status of London as a World City by providing a world class transport system. The project includes the construction of a twin-bore tunnel on a west-east alignment under central London and the upgrading of existing National Rail lines to the east and west of central London. The project will enable the introduction of a range of new and improved rail journeys into and through London. It includes the construction of seven central area stations, providing interchange with London Underground, National Rail and London bus services, and the upgrading or renewal of existing stations outside central London.

Crossrail will provide fast, efficient and convenient rail access to the West End and the City by linking existing routes from Shenfield and Abbey Wood in the east, with Reading and Heathrow in the west (see figure 1). Crossrail will be a significant addition to the transport infrastructure of London and the South East of England.

It will deliver improved services for rail users through the relief of crowding, faster journeys and the provision of a range of new direct journey opportunities. The project will also have wider social and economic benefits for London and the South East of England.



Figure 1: The Crossrail Route

1.4 The Crossrail Act 2008

The Crossrail Act 2008 provides powers for the construction and operation of Crossrail. Schedule 1 of the Act describes the 'scheduled works' that the nominated undertaker will be authorised to carry out.

For this work Crossrail Limited (CRL) is the nominated undertaker.

The Act deems planning permission is to be granted for the works authorised by it, subject to the conditions set out in Schedule 7. Schedule 7 includes conditions requiring various matters be subject to the approval of the relevant local authority.

This is therefore a different planning regime to that which usually applies in England (i.e. the Town and Country Planning Act) and is different in terms of the nature of submissions and the issues that the local planning authorities (LPAs) can have regards to in determining requests for approval.

There are two types of submission that can be made by the nominated undertaker under Schedule 7.

- Permanent works
- Temporary works.

The details of the permanent works that will be submitted are commonly referred to as 'plans and specifications' (reflecting the description within paragraphs 6, 15 and 21 of Schedule 7), whilst the temporary works details to be submitted are commonly referred to as 'construction arrangements' (reflecting the description in paragraphs 7, 16 and 22 of Schedule 7).



This document includes information supporting the Plans and Specifications submission in relation to the matters outlined in the table below:

Plans and Specifications (Permanent Works)	<ul style="list-style-type: none">• Construction works• Fences and Walls
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1.5 Crossrail Construction Code

Paragraph 1.4 of the Crossrail Environmental Minimum Requirements (EMR) states that “any nominated undertaker will be contractually bound to comply with the controls set out in the EMR and as may be developed during the passage of the Act through Parliament”. The scope of the EMR encompasses the Crossrail Construction Code.



2 Location and Characteristics

2.1 Description of Site

Hayes and Harlington Station is located on Station Road to the south of Hayes Town Centre, within the London Borough of Hillingdon. The railway line runs east to west with the current station building located on the Station Road bridge which crosses the railway running north to south. Access to Platforms 4 and 2/3 is gained from two sets of staircases within the Station Building. Access to Platform 1 is gained via a staircase directly from Station Road located immediately south of the bridge parapet on the eastern flank. This staircase also provides access to the station car park. A further footbridge, to the eastern end of the station, connects Platforms 2/3 and 4/5. In addition, a subway runs from Blyth Road to the west, under Station Road, and provides further access to Station Approach.

Hayes and Harlington Station has five Platforms. Platform 1 is the southernmost platform, followed by island Platform 2/3. The majority of Platform 4 is a single faced platform with the remainder comprising an island platform with Platform 5.

The Platform 4 canopy is an extension of the secondary station building roof. Platform 2/3 has a canopy which extends between the eastern access staircase and existing ticket office. Under this canopy is located a platform waiting room. There is no canopy on platform 1.

2.2 Highway Network

Hayes and Harlington Station is located on Station Road which adjoins the A437 to the south, providing access to the M4 via the A312. The remainder of the surrounding roads are residential in nature.

2.3 Adjacent Land Uses

The Station is surrounded by a variety of land uses. Immediately around the station are various commercial and retail uses, as well as some light industrial uses to the south and west; residential development comprises the remainder land use.



3 Description of Crossrail Works

3.1 Key WorkStreams

On 10th March 2015 the LB of Hillingdon approved a Request for Approval made under Schedule 7 to the Crossrail Act 2008 for the construction of Hayes & Harlington Station (CRL Ref:HIL 3/4/NR Council Ref: 10057/APP/2014/4338). The works approved by the LPA were the following:

- New Station Building;
- New External Lift Shaft;
- New Footbridge with Lift Shafts;
- Extension of platform and canopy modifications to 2/3;
- Extension and new canopy to Platform 4/5;
- New Waiting Room on Platform 4/5; and
- New Lighting.

Further details of the previously approved works are included within the written statement and Design & Access Statement which accompanied, for information, the 2014/2015 submission .

Following on from this approval the design of the station has evolved and there have been a number of minor changes and additions to the originally approved scheme. Each individual alteration is considered to be a minor in of itself, however collectively they are significant enough to require a further schedule 7 request for approval. Approval is therefore sought for the Hayes and Harlington Station again with the changes listed below being alterations and additions to the previously approved scheme.

- Brushed stainless steel handrails have been added to the external steps leading up to the main entrance of the station. These additions are reflected by drawings 722520 P01 & 722501 P01.
- A new external escape staircase and external door are to be added to the north-east corner of the retail unit at concourse/ pavement level, visible on drawing 722501 P01.
- A roof fall restraint system and one roof hatch will be added to the roof and a painted fabricated trim will be added to form the perimeter roof fascia.
- An internal re-alignment of the passenger footbridge providing access to platforms from the station. The inclusion of the new escape stair to the adjacent retail unit has required the footbridge to be altered to enable sufficient space for the lift and staircase. Roof access hatches are to be installed. The footbridge layout is shown by drawing 722501 P01 and 722503 P01.

- The Portland stone crash wall in the vicinity of the bay line (platform 5) will now not be built. The 'historic station wall' (brick facing wall) will be moved 1.3 metres to the north from the approved position. As a result the staff accommodation will be reduced in depth and one linear roof light will be removed. This wall will have a decorative facing on the northern side to match the existing wall and will be fairfaced concrete on the southern side. These changes are reflected by the drawing 722501 P01.
- Bicycle stands are proposed to be re-located away from the eastern elevation to the new station entrance building to the vicinity of the new 'historic station wall'. See drawing 722501 P01.
- The ground level wall to the southern elevation of the new station building is proposed to be pushed back by 0.7 metres and 'dog-legged' around the bay line buffer stop. As a result the support columns to the passenger over bridge are to be exposed and subsequently protected by a new low level concrete crash wall. The upper level retail unit wall now cantilevers over the exposed space and buffer stop. See drawing 722502 P01.
- The external lift serving the new station building on the east side is proposed to be moved 1 metre to the west and will constitute a two sided entrance lift rather than the single entrance lift. See drawing 722501 P01 & 722502 P01. The external lift shaft now meets the soffit of the roof to the eastern elevation of the new entrance building, increasing in height by 1.9 metres. A glass canopy has been added to the entrance to the lift See drawing 722520 P01.
- A new door and ventilation grilled openings are proposed to the eastern elevation of the station ground level plant area. See drawings 722521 P01 & 722502 P01.
- New external uplighters to external wall and canopy to be floor mounted. See drawing 722502 P01.
- The canopy on platform 4/5 is proposed to be widened by 500mm to meet the edge of the platform. This is illustrated by drawing: 722500 P01.

3.2 Alterations to Materials

The materials were approved as part of the original station submission. However, some minor alterations are proposed to the external materials and these are listed below.

Station Building Cladding

Alterations to the station building cladding will see a change from limestone masonry coursed Portland stone wall cladding to large format reconstituted Portland Stone wall cladding and glass curtain walling installed on the southern elevation.

Lift Shaft Cladding

Glass Reinforced Concrete (GRC) cladding is proposed in place of the approved precast concrete panels. In terms of character and appearance the GRC panels are not materially different in appearance to the precast concrete; however, they are lighter and offer the same level strength.

Platform Canopy

The canopy roof will be made of steel composite insulated in place of the previously approved PVC/TPE material based roof however in character and appearance the new roof will not differ.

Waiting Room Cladding

The waiting room on platform 4/5 will have a galvanized steel frame façade with glazed infill panes instead of glass curtain walling. The ceramic cladding is unchanged.

4 Design Rationale

4.1 New Station Building

The station building remains as approved with double height glazed panels around the majority of its facade. This allows natural light to permeate into the station building creating a light and airy space, further enhancing user experience during transit. A column supported canopy will cover the plinth area and will provide shelter at Station Road level to the station building.

The station building sits on a plinth approximately 3.2m above ground level and at the same level as Station Road. The station building is set away from the adjacent building to the east and built to a height of approximately 10.0m above Station Approach, this will help frame the space and be of an appropriate height and scale within the townscape. Brushed satin stainless steel handrails have been added to the external steps leading up to the main entrance of the station; these are proposed to assist access.

The building is orientated to be legible from Hayes Town Centre to the north and from Station Road to the west, with active frontages facing both roads.

4.1.1 Layout at Concourse Level

The Station Building is constructed on a raised plinth and is orientated towards Hayes Town Centre to the north. Step-free access is gained from both Station Road and Station Approach.

At the rear of the building there is a short flight of steps and a lift shaft providing access up to new footbridge with lift shafts to give step free access to all platforms.

There is a service access from Station Road that visually breaks the massing of the station building up into the concourse and footbridge and ancillary buildings. Staff facilities are located in the southern section of the building and accessed from the rear within the main building and at ground level behind.

4.1.2 External Lift Shaft

The external lift shaft is designed to provide a covered step-free access route from Station Approach to the station forecourt level. It is designed to be in-keeping with the remainder of the station and the individual lift shafts to the footbridge.



4.1.3 Footbridge with Lift Shafts

The footbridge and lift shafts will be constructed in a similar style to that of the new station building. The upper sections of the footbridge walls will be glazed windows allowing natural light to permeate through the structure. See drawing 722521 P01.

4.2 Materials

4.2.1 Station Building

The new Station Building will be constructed on a concrete plinth, with a steel frame, glazing panels and stone cladding around plinth surrounds, with anodized panelling around the ticket office.

This will be enclosed by a steel composite framed canopy and columns with a painted seamless insulated synthetic resin soffit. The building facades will be treated with a glazed panel system sitting inside the structural steel framework. The use of glass will allow the permeation of natural light through the station concourse, creating a light, airy and welcoming environment for passengers.



Examples of Schuco glass panelling systems.

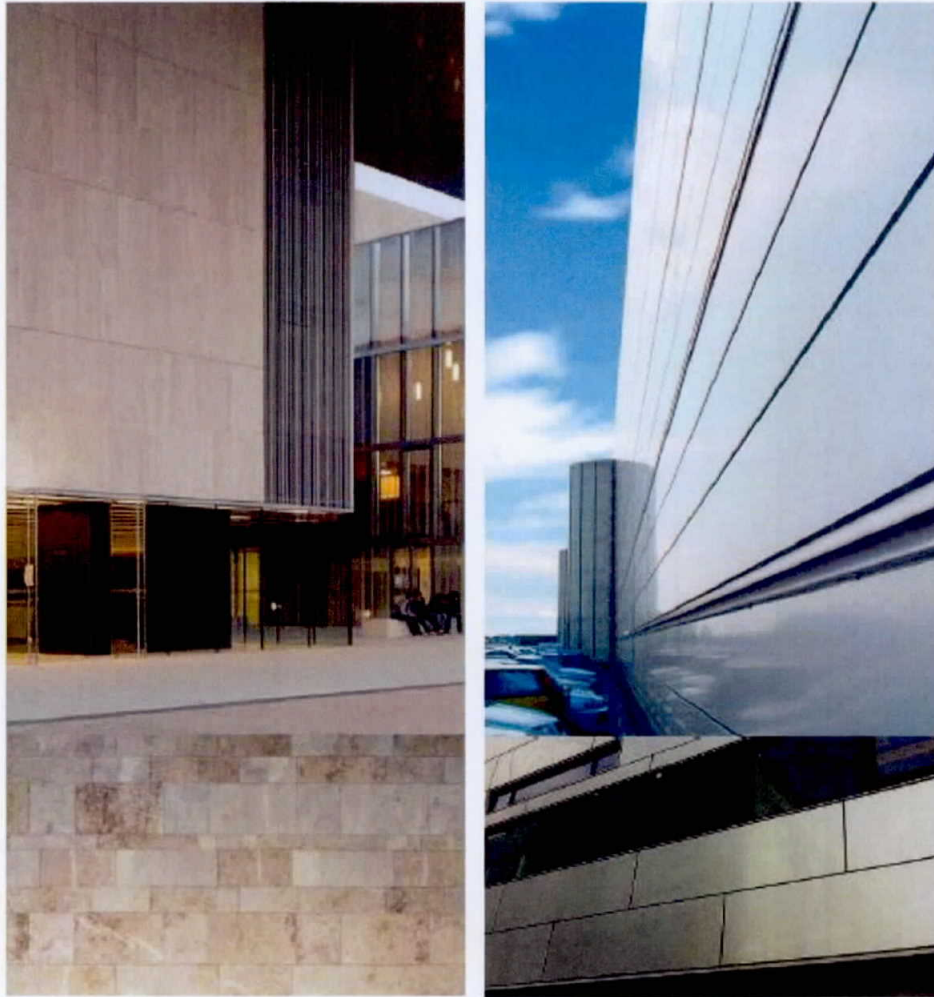
Figure 35. Examples of steel framed buildings and canopies.

Figure 36. Examples of painted resin soffit treatments.

4.2.2 External Lift Shaft

The external lift shaft will be glazed on north and south sides with anodized metal panels on the east and west elevations. A new Footbridge, Stairs and Lift Shafts will be constructed from a steelwork frame with steel deck plate, steel cladding panel sides with windows above, and a steel profiled sheet roof.

The use of windows throughout the footbridge and stairs will allow natural light to permeate throughout, extending the open, welcoming environment of the station concourse and creating a high quality environment for passengers walking through the station.



Examples of external stone cladding & anodized metal paneling

4.3 Station Access

Access to the station is achieved via the entrance from Station Approach. There is step free access to the concourse level from Station Road and Station Approach, with an external lift shaft providing a link between levels.

Access to the platforms is gained by a small flight of stairs or lift shafts up to the footbridge level and then via stairs and lift shafts down to platform level. Servicing and staff access is gained from the rear of the building from Station Road and at ground level from Station Approach.



5 Plans and Specifications

5.1 Plans for approval

The following plans comprise the submission for approval which is included under separate cover.

Plan Reference	Title	Revision
WSN3F-EAR-DRG-ARC-722500	Site Plan	P02
WSN3F-EAR-DRG-ARC-722501	Proposed Building Plan Concourse	P02
WSN3F-EAR-DRG-ARC-722502	Proposed Building Plan Platform	P02
WSN3F-EAR-DRG-ARC-722503	Proposed Roof Plan	P02
WSN3F-EAR-DRG-ARC-722521	Proposed Building Elevation	P02
WSN3F-EAR-DRG-ARC-722520	Proposed BuildElevation North/South	P02
WSN3F-EAR-DRG-ARC-722530	Proposed Building Section 1 & 2	P02
WSN3F-EAR-DRG-ARC-722531	Proposed Building Section 3 & 4	P02



6 Constraints

The following general constraints are recognised as being relevant to the project:

- Change in ground levels between Station Road and Station Approach;
- Providing step-free access from Station Road and Station Approach;
- Necessary demolition of the existing station building and existing 6 storey office building;
- Minimising disruption to passengers and local businesses; and
- Maintaining station operations during construction.



7 Timescales

In order to minimise disruption to the operation of the railway, the works will be undertaken in a number of stages within short closures (possessions) of the railway.

The high level construction programme is set out below.

Activity	Quarter
Demolition of Bridge House (office block) and Platform 4 buildings	Q3 2015
Installation of new footbridge	Q4 2015
New station opening	Q4 2019



8 Other Consent Approvals/Notifications

In addition to the Plans and Specifications approval discussed in this statement, a number of other approvals will be required and will be sought by CRL under the appropriate statutory and legal framework. These include:

Planning

- Plans and Specifications submissions for the approval by London Borough of Hillingdon;

Environment

- Section 61 consent for works; and
- Schedule 17 consent for works.

Highways

- Highways consents for works to public highways associated with the works.

Appendix A - Undertakings and Assurances made to the London Borough of Hillingdon

The following table consists of all the Undertakings and Assurances given to the London Borough of Hillingdon. The complete Register of Undertakings and Assurances is available on the Crossrail website:

<http://www.crossrail.co.uk/railway/getting-approval/crossrail-act-register-undertakings-assurances>

No.	Type	Date Given	Subject	Summary
168	Undertaking	20/06/2006	Carp Ponds and Broad Dock Site	
169	Assurance	April 2006	OHLE – fixing to bridges in Hillingdon	If this is the case then the Promoter will consult with the petitioner regarding the fixing that is to be used.
170	Assurance	April 2006	Hayes and Harlington Station – parking	Such parking controls are the responsibility of the petitioner and the Promoter therefore undertakes to work closely with the petitioner to review the operation of these controls at Hayes and Harlington Station.
382	Assurance	20/06/2006	Retention of Brunel Bridges	The Minister has confirmed his agreement to the decision on the bridges as set out below: Leigh Road (grade II listed) - Retain by track slewing and lowering; Wexham Road – Retain by track slewing and lowering; St Mary's Road (grade II listed) - Retain by track slewing and lowering; and Thorney Lane - Retain by track slewing and lowering.
530	Assurance	28/03/2008	Hayes and Harlington Station	Works to the structure of Hayes and Harlington Station, carried out by the Promoter in connection with Crossrail, will be constructed in such a manner as to have no material impact on Station Road Bridge in respect of the London Borough of Hillingdon's maintenance obligations.