

Hilton Garden Inn Hotel, Leeds
Design and Access Statement



- 
- 01** Project Overview
 - 02** The Site
 - 03** Description of Works
 - 04** Design Assessment
 - 05** Access Assessment
 - 06** Appendices

Project Overview

Property: Hilton Garden Inn Hotel, Heathrow

Client: Padox Leeds PropCO BV

Agent: SCC Ltd

The proposed works comprise limited roof-level alterations to the existing hotel building to facilitate the replacement of roof-mounted mechanical plant. They are needed to support the continued efficient operation of the building and form part of a wider programme of upgrades aimed at improving energy performance and reducing carbon emissions.

In planning terms, the proposals are modest in scale and confined to the roof, so they do not materially alter the building's overall form, massing or function.

The visual effects of the works are limited due to the existing the brise soleil obscuring the proposed locations of the plant.

The proposals will improve the environmental performance of the building through the replacement of obsolete plant with more energy-efficient equipment, supporting the longer-term modernisation of the hotel without giving rise to adverse effects on the surrounding area.

The Site



Diagram 1: Site Location

The Site

The site comprises the Hilton Garden Inn Hotel, Heathrow, located within the wider Heathrow Airport area. The hotel occupies an established commercial setting, with surrounding uses including airport-related accommodation, transport infrastructure, car parking, offices and ancillary airport services.

The surrounding area is well connected, with access to the strategic road network and public transport links serving Heathrow Airport and the wider West London area. Pedestrian and vehicular access to the hotel is available from the surrounding highway network, with on-site drop-off, servicing and parking arrangements supporting the day-to-day operation of the hotel.

The hotel forms part of the established airport hotel and commercial environment around Heathrow. Its setting is characterised by large-scale transport infrastructure, airport-related development and commercial buildings, rather than a traditional residential or town centre context. The site therefore sits within an area where hotel, servicing and operational activity is already well established.



Description of the Works

Description of the Works

Approval is sought for a package of works comprising of the replacement roof-mounted plant.

The proposals include the installation of Air Source Heat Pumps as follows:

- 16 No. ASHP modules, each providing 40 kW output including 1 unit for redundancy
- Modular arrangement enabling phased installation
- Use CO₂ (R744) as a natural refrigerant
- Achieve high outlet temperatures (up to 90°C) with a CoP of up to 3.88.

Appendix 1 & 2 – Specification data sheets

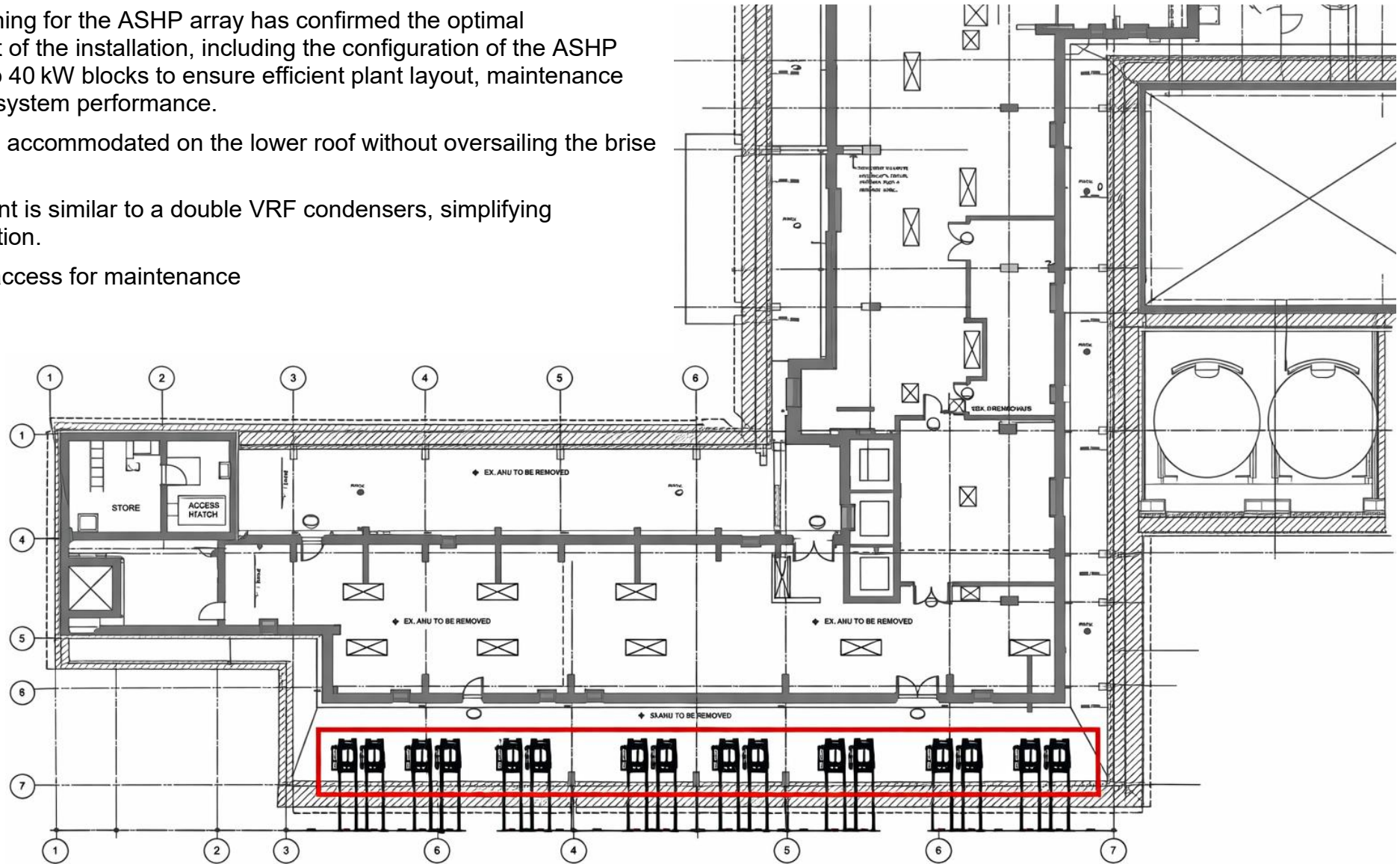
Table 1 – data summary

Category	Specification
Water Heating @60°C	Capacity: 40 kW Power Input: 10.31 kW Current Input: 16.8 A
Water Heating @65°C	Capacity: 40 kW Power Input: 10.87 kW Current Input: 17.8 A
Water Heating @70°C	Capacity: 40 kW Power Input: 11.6 kW Current Input: 18.7 A
Water Heating Energy Efficiency Class	For medium temperature application
Temperature Range	Inlet Water Temperature: 5 – 63 °C Outlet Water Temperature: 55 – 90 °C Outdoor Temperature: –25 – 43 °C
Electrical	Power Supply: 380–415 V / 3 Ph / 50 Hz Maximum Current: 40 A
Water Detail	Water Flow Rate: 116.6 L/min ($\Delta T = 5\text{ °C}$) / 101.5 L/min ($\Delta T = 6\text{ °C}$), active pipe Allowable External Pump Head: 77 kPa Water Pipe Size: 32A
Dimensions (mm)	Width: 1220 Depth: 430 Height: 1650
Weight (kg)	430
Noise Level	Sound Pressure Level: 56 dB(A)
Refrigerant	Refrigerant Charge: 6.5 kg (CO ₂ equivalent 4.6 kg)

3.1

Spatial planning for the ASHP array has confirmed the optimal arrangement of the installation, including the configuration of the ASHP modules into 40 kW blocks to ensure efficient plant layout, maintenance access and system performance.

- Can be accommodated on the lower roof without oversailing the brise soleil
- Footprint is similar to a double VRF condensers, simplifying integration.
- Good access for maintenance





South Elevation

The South elevation view indicated that the ASHP array will sit slightly higher than the current edge protection, this increase in height is modest and does not materially alter the building's silhouette or its relationship with neighbouring properties. The overall visual change is therefore limited, localised to the immediate roofscape, and not perceptible from typical pedestrian or street-level vantage points.





Photo 1: Proposed Location



Photo 2: Carpark View

The overall visual change is limited and localised to the immediate roofscape. It will not be perceptible from typical pedestrian or street-level vantage points, due to the presence of the Brias Solias.

The units will be positioned within the existing roof zone and set back from the edge protection (Photo 1), ensuring they are largely screened from public viewpoints at the carpark (Photo 2) and from across the road (Photo 3).



Photo 3: Road view





Planning Policy Context

The proposals have been considered having regard to the statutory development plan for the Heathrow area and relevant national planning guidance. The relevant local planning framework forms the basis for the determination of planning applications and should be read together where relevant.

At national level, the National Planning Policy Framework supports sustainable development, good design and the effective use and adaptation of existing buildings. The proposed works are consistent with these principles, as they support the continued operation and improvement of an established hotel building without changing its use, increasing its scale or materially altering its relationship with the surrounding area.

In local policy terms, the relevant considerations principally relate to design quality, townscape impact, neighbouring amenity, sustainable development and the management of any temporary construction effects. The works are confined to roof level and involve the replacement and rationalisation of existing plant and screening. They would not materially alter the appearance, scale or massing of the building and would remain largely screened from typical public vantage points.

The installation of modern ASHP / Air Source Heat Pumps also supports wider objectives for improved energy efficiency and reduced carbon emissions. The proposal therefore aligns with the direction of local and national policy seeking to encourage building improvements which contribute to climate change

mitigation, provided that visual, acoustic and amenity impacts are appropriately controlled.

The temporary craneage, pavement management and loading arrangements required to facilitate the works will be short-term in nature and subject to the necessary separate approvals or licences from the relevant highway authority. On that basis, the proposals are considered to accord with the relevant planning policy context, subject to the detailed matters addressed in the following assessment.



Assessment of Effects

The scheme has been developed with regard to the relevant planning policy context and the National Planning Policy Framework, particularly in relation to design quality, visual amenity, sustainable development and the protection of neighbouring amenity. Given the limited scale of the works, their roof-level location and the absence of material harm to the building or surrounding townscape, the proposals are considered to accord with the relevant planning framework.

The proposals comprise modest works to an existing hotel building that support ongoing upgrades and wider decarbonisation objectives.

As they are confined to roof level and largely screened from public views, their visual effects are limited. There are no changes to access arrangements, and any environmental effects, including noise, will be addressed through the detailed design of the replacement plant.

The application relates to localised roof-level changes associated with the replacement of existing mechanical plant. The works are ancillary to the continued lawful use of the building as a hotel and do not involve any material extension or alteration to the overall built form.

Scale and Nature of Development

Although the proposals alter the arrangement of plant at roof level, the changes are limited in extent and are necessary to support essential upgrades to the building services.

The development does not change the principal use of the building, increase occupancy, or alter the way the site functions within its surroundings.

The proposals involve the replacement of 16 units, 1220W x 430D with each new unit occupying approximately 0.52m².

Visual Impact

As the proposals are confined to roof level and do not materially alter the profile or appearance of the building when viewed from typical public vantage points, they are not considered to result in material harm to the character or appearance of the host building or the surrounding townscape.

Noise Impact

The proposed ASHP / Air Source Heat Pumps have been selected to provide a modern replacement for the existing roof-mounted plant. The acoustic ratings for the proposed units are 56dB.





Neighbouring Amenity

The proposed works are confined to roof level and relate solely to plant and associated building services. There are no changes to entrances, circulation routes, public access or the hotel's existing inclusive access arrangements.

The way the building is used by staff, guests and visitors will remain unchanged. The proposals will, however, improve maintenance access at roof level by allowing a more practical and safer long-term servicing arrangement.

Given the nature of the works, the proposals do not give rise to issues of overlooking, privacy, overdominance or loss of light, and amenity considerations are principally limited to temporary construction activity.

Access and Craneage

All lifting operations will be planned and carried out by competent contractors in accordance with approved lift plans and method statements, ensuring safe operation without undue impact on neighbouring properties or the surrounding public realm.

To facilitate the works, the appointed contractor will apply for any necessary out-of-hours temporary highway or access restrictions required to accommodate the crane lifts. Any temporary compound, pavement management, loading arrangements or servicing restrictions will be agreed with the relevant highway authority and managed to enable safe plant movement and waste collection.

Emergency access to and from the building will be retained, and safe pedestrian movement will be maintained.

The proposed development comprises minor roof-level works required to facilitate the replacement of existing mechanical plant and the temporary removal and reinstatement of associated screening. The proposals support the continued efficient operation of the hotel, improve the environmental performance of the building, and form part of a wider programme of building services renewal and decarbonisation.

Any temporary highway, pavement or loading bay restrictions will be subject to the necessary separate approvals and licences from the relevant highway authority and will be managed to minimise disruption to pedestrians, road users and neighbouring occupiers.

Conclusion

The works are limited in scale, would remain visually unobtrusive, and do not affect access arrangements, the use of the building, or the character and appearance of the surrounding area. On the basis of the submitted details, and subject to the final specification and installation of the replacement equipment being consistent with those details, the proposals are considered acceptable in planning terms and suitable for approval.



Appendices

Appendix B – Proposed units

Commercial Heating

Product Information



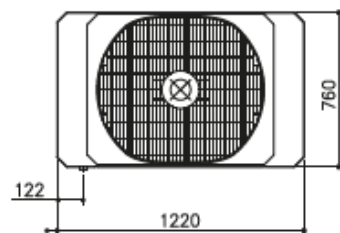
QAHV Monobloc Air Source Heat Pump



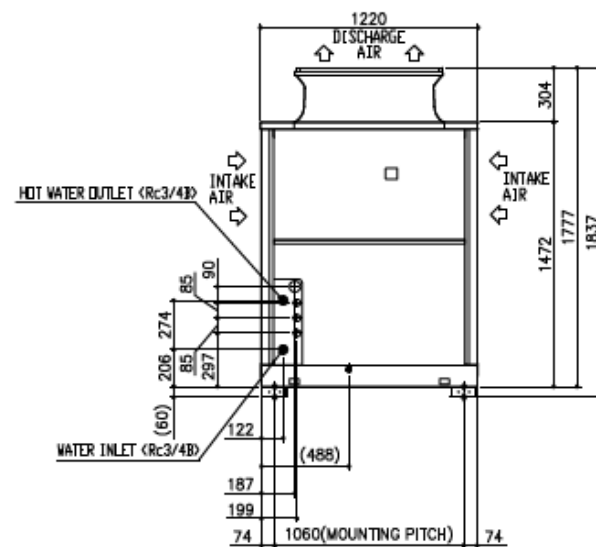
OUTDOOR UNIT		QAHV-N560YA-HPB
WATER HEATING 65°C ¹	CAPACITY (kW)	40
	POWER INPUT (kW)	10.31
	CURRENT INPUT (A)	16.3
	COP	3.88
WATER HEATING 65°C ²	CAPACITY (kW)	40
	POWER INPUT (kW)	10.97
	CURRENT INPUT (A)	18.3
	COP	3.65
WATER HEATING 65°C ³	CAPACITY (kW)	40
	POWER INPUT (kW)	11.6
	CURRENT INPUT (A)	18.7
	COP	3.44
WATER HEATING ENERGY EFFICIENCY CLASS TEMPERATURE RANGE	FOR MEDIUM TEMPERATURE APPLICATION	A
	INLET WATER TEMPERATURE (°C)	5 ~ 63
	OUTLET WATER TEMPERATURE (°C)	55 ~ 90
	OUTDOOR TEMPERATURE (°C)	-25~43
ELECTRICAL	MAX CURRENT INPUT (A)	33.8
	ELECTRICAL SUPPLY (V / Hz)	380-415v, 50Hz
	PHASE	3
	FUSE RATING - MCB SIZES (A) ⁵	40
WATER DETAIL	INLET / OUTLET (mm (in.))	19.05 (Rc 3/4"), screw pipe / 19.05 (Rc 3/4"), screw pipe
	ALLOWABLE EXTERNAL PUMP HEAD (kPa)	77
DIMENSIONS (mm)	WIDTH	1220
	DEPTH	760
	HEIGHT	1837 (1777 without legs)
WEIGHT (kg)		400
NOISE LEVEL	SOUND PRESSURE ⁴ (dB(A))	56
REFRIGERANT	TYPE	R744 (GWP 1)
	REFRIGERANT CHARGE (kg) / CO ₂ EQUIVALENT (t)	6.5 / 0.0065

QAHV-N560YA-HPB DIMENSIONS

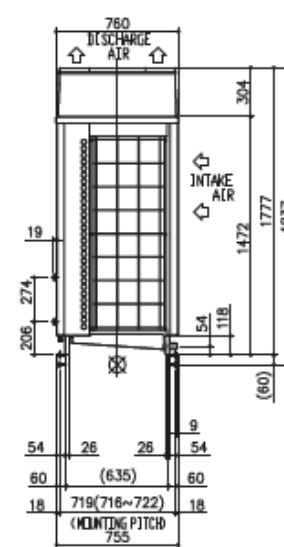
FRONT VIEW



UPPER VIEW



SIDE VIEW



Get in Touch

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