Agar Grove Phase 1c Air Source Heat Pump Design - Comparison

# Hawkins\ Brown

Phase 1c - Approved and Minor Material Amendment

- The changes affect both Blocks I and JKL.

- Air source heat pumps (ASHPs) have been added following development of the blocks from detailed planning (consented August 2014) and included in the detailed design (consented October 2020). Enclosures are needed for noise mitigation and there is a perimeter within these for maintenance access. This noise mitigation is also required as part of the planning conditions.

- Block I is split into two cores and Block JKL into three. Each core has a lift and staircase.

- Since the October 2020 approval, the design has moved from one large ASHP to two small ASHPs per core, both housed in one enclosure.

- The manufacturer, Daikin, requires a minimum of two ASHP machines on communal systems, for "better low load turn down, riding the defrost cycle, and (partial) coverage through maintenance periods."

- This came about due to design development and this evolving technology as per the evolving requirements from Daikin.

- The approved drawings from October 2020 didn't show dimensions for the units.

- These will be set back from the facade edge to minimise visibility and, after testing other colour options in discussion with planners, we feel that grey is the most suitable colour. This will tone with the brickwork to the top floor of Block JKL where there is a partial height brick parapet, and a metal balustrade above to enable safe maintenance of the roof.

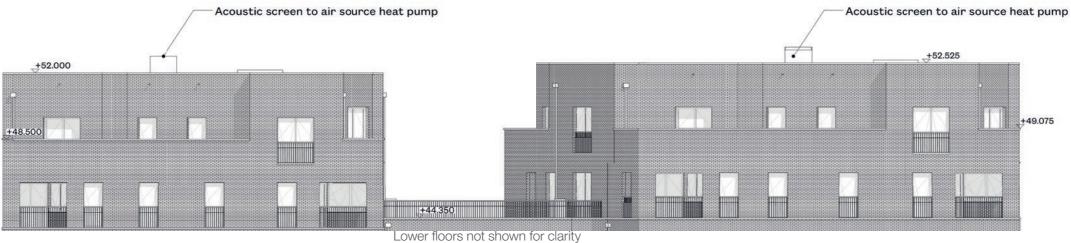
- The louvred element of the enclosure is from roof to waist height, so should not be visible from the street at all.

- Due to the full height brick parapet and set back nature of the ASHP, on Block I these are not visible in any of the street views we have produced.

- We note that due to perspective, the heights shown in elevation appear more dramatic than the units will appear from street level.

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#### Air Source Heat Pump Design - Comparison Block I - East Elevation



ASHPs and enclosure - Approved October 2020 East Elevation

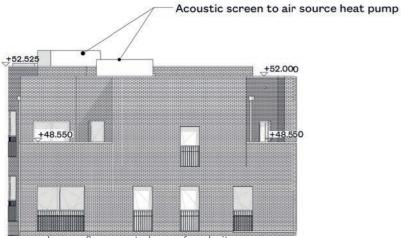


ASHPs and enclosure - Proposed Minor Material Amendment February 2023 East Elevation

Note: Brick remains unchanged. Graphic differences due to drawing production by MAE Architects and Hawkins\Brown Architects varying in styles.

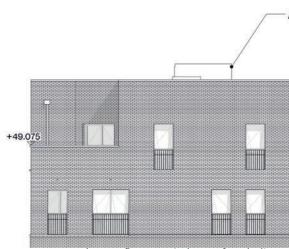


Block I - North/South Elevations



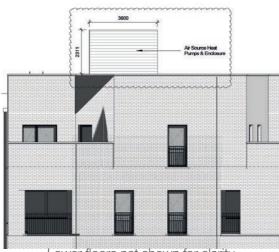
Lower floors not shown for clarity

ASHPs and enclosure - Approved October 2020 South Elevation



Lower floors not shown for clarity

ASHPs and enclosure - Approved October 2020 North Elevation



Lower floors not shown for clarity

ASHPs and enclosure - Proposed Minor Material Amendment February 2023 South Elevation

Note: Brick remains unchanged. Graphic differences due to drawing production by MAE Architects and Hawkins\Brown Architects varying in





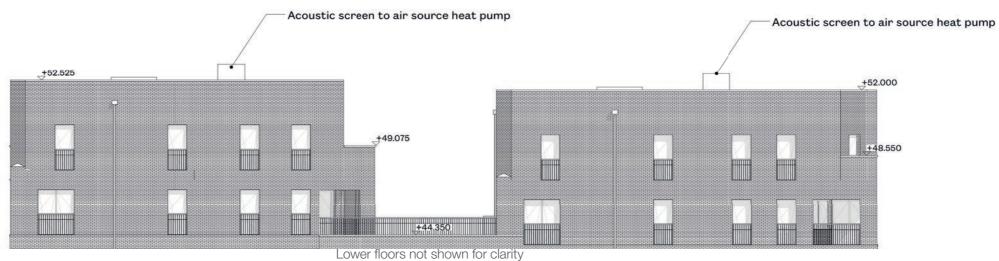
ASHPs and enclosure - Proposed Minor Material Amendment February 2023 South Elevation

#### Acoustic screen to air source heat pump





Block I - West Elevation



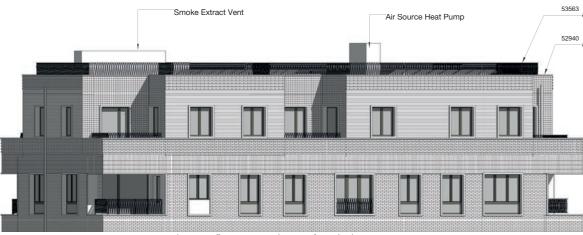
ASHPs and enclosure - Approved October 2020 West Elevation



ASHPs and enclosure - Proposed Minor Material Amendment February 2023 West Elevation

Note: Brick remains unchanged. Graphic differences due to drawing production by MAE Architects and Hawkins\Brown Architects varying in styles.

Block JKL - East/North Elevations



Lower floors not shown for clarity

ASHPs and enclosure - Approved October 2020 East Elevation



ASHPs and enclosure - Approved October 2020 North Elevation



Lower floors not shown for clarity

ASHPs and enclosure - Proposed Minor Material Amendment February 2023 East Elevation

Note: Brick remains unchanged. Graphic differences due to drawing production by MAE Architects and Hawkins\Brown Architects varying in styles.

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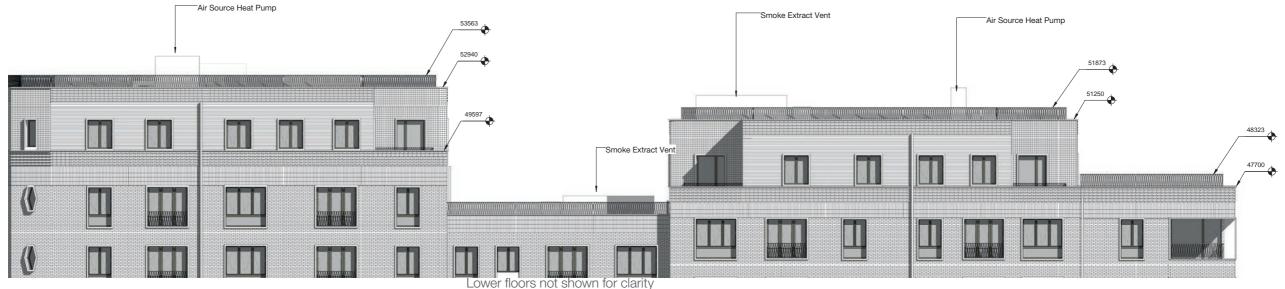


Lower floors not shown for clarity

ASHPs and enclosure - Proposed Minor Material Amendment February 2023 North Elevation

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Block JKL - West Elevation



ASHPs and enclosure - Approved October 2020 West Elevation



ASHPs and enclosure - Proposed Minor Material Amendment February 2023 West Elevation

Note: Brick remains unchanged. Graphic differences due to drawing production by MAE Architects and Hawkins\Brown Architects varying in styles.

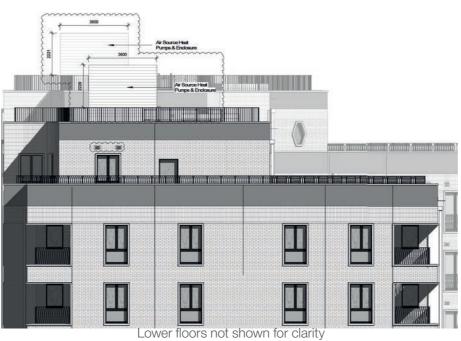
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#### Air Source Heat Pump Design - Comparison Block JKL - South Elevation



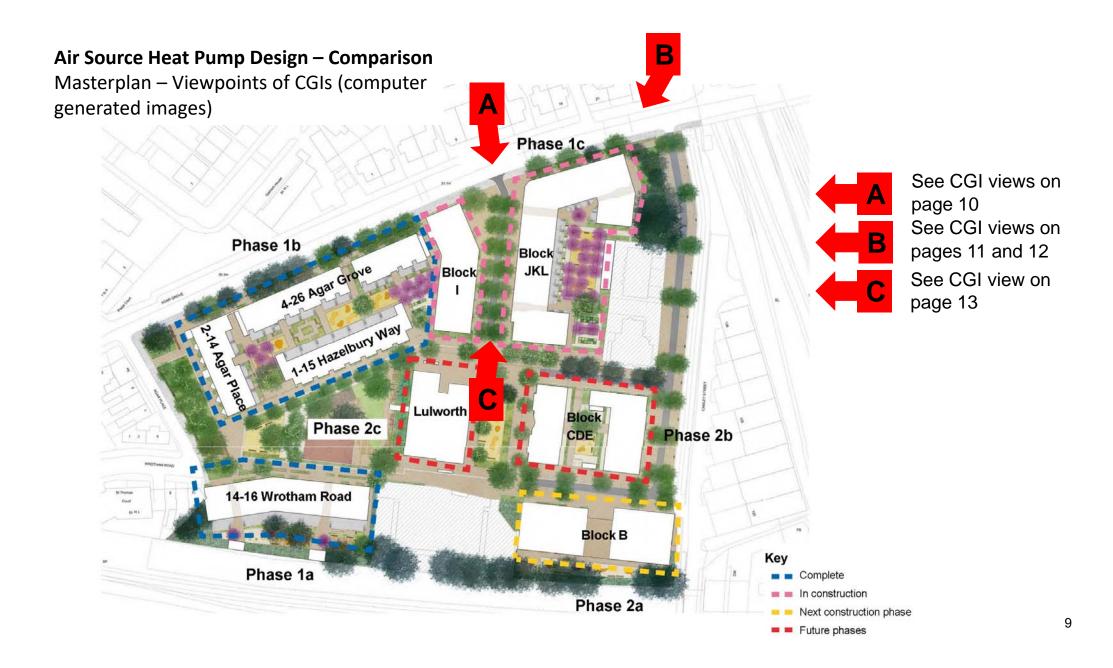
ASHPs and enclosure - Approved October 2020 South Elevation



ASHPs and enclosure - Proposed Minor Material Amendment February 2023 South Elevation

Note: Brick remains unchanged. Graphic differences due to drawing production by MAE Architects and Hawkins\Brown Architects varying in styles.

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#### Air Source Heat Pump Design - Comparison Milburn Lane facing South



Approved October 2020

ASHP enclosure not visible from this angle

Balustrade Colour: Moss Grey (RAL 7003) Shown in elevations only as part of 2020 approved scheme - not previously shown in CGIs (computer generated images)



Proposed Minor Material Amendment February 2023

ASHP enclosure not visible from this angle due to full height brick parapet to this block

## **Air Source Heat Pump Design - Comparison** Agar Grove facing West



Approved October 2020



Proposed Minor Material Amendment February 2023

ASHP enclosure Colour: Pebble Grey (RAL 7032)

Balustrade Colour Moss Grey (RAL 7003) Shown in elevations only as part of 2020 approved scheme - not previously shown in CGIs (computer generated images)

#### Air Source Heat Pump Design

Agar Grove facing West - Detail view



Street View Along Agar Grove - Proposed Minor Material Amendment February 2023

Cropped view of ASHP enclosure - Proposed Minor Material Amendment February 2023

Balustrade

Colour: Moss Grey (RAL 7003)

ASHP enclosure Colour Pebble Grey (RAL 7032)

#### Air Source Heat Pump Design - Comparison Milburn Lane facing North



Approved October 2020 [No view showing JKL from this angle in October 2020 Approval]



Proposed Minor Material Amendment February 2023

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