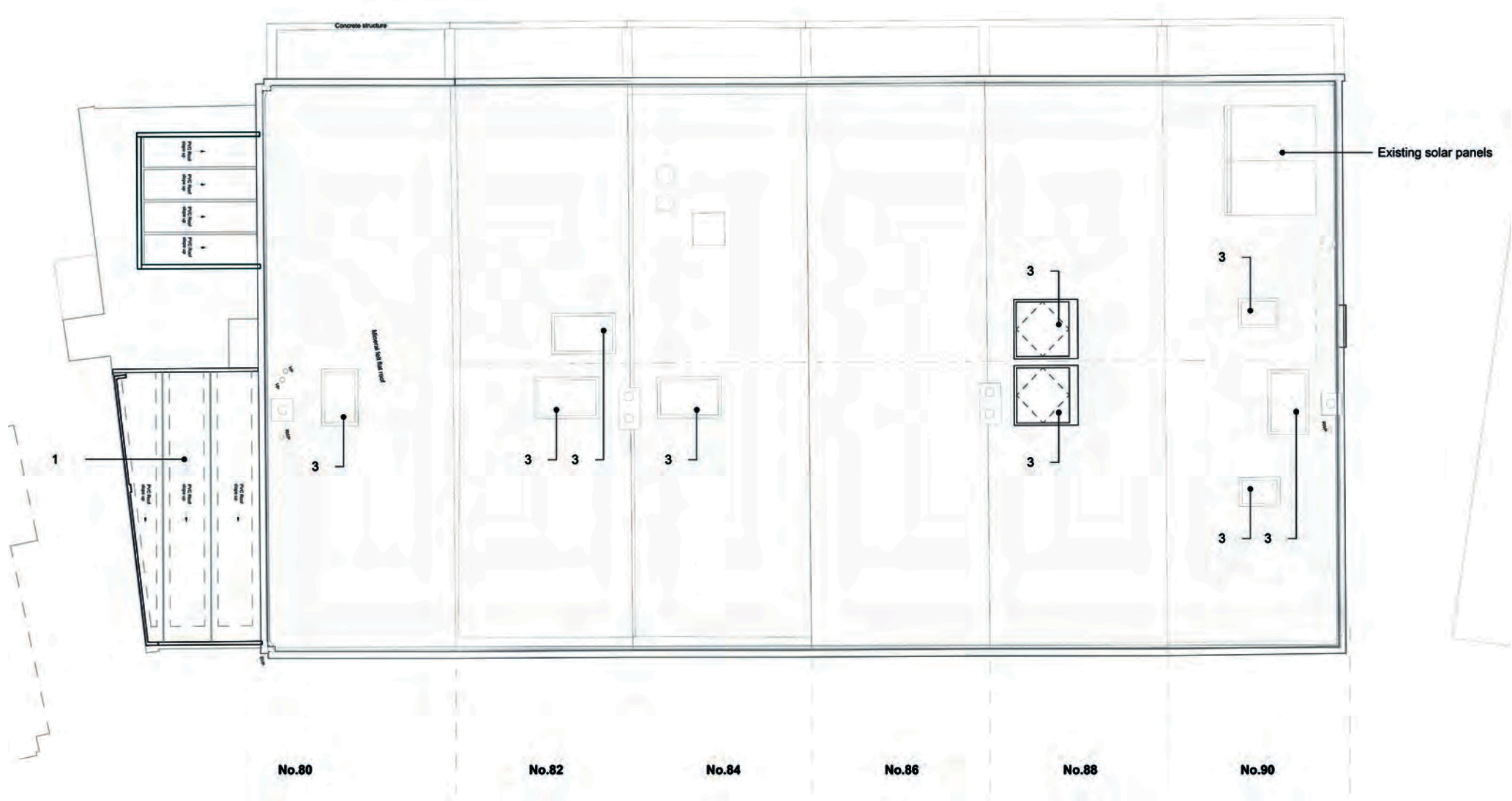


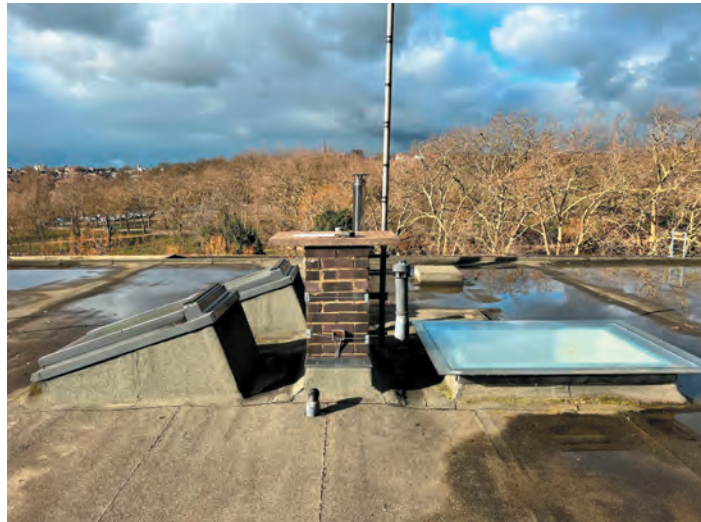
Existing Terrace roof



Existing Terrace roof plan:

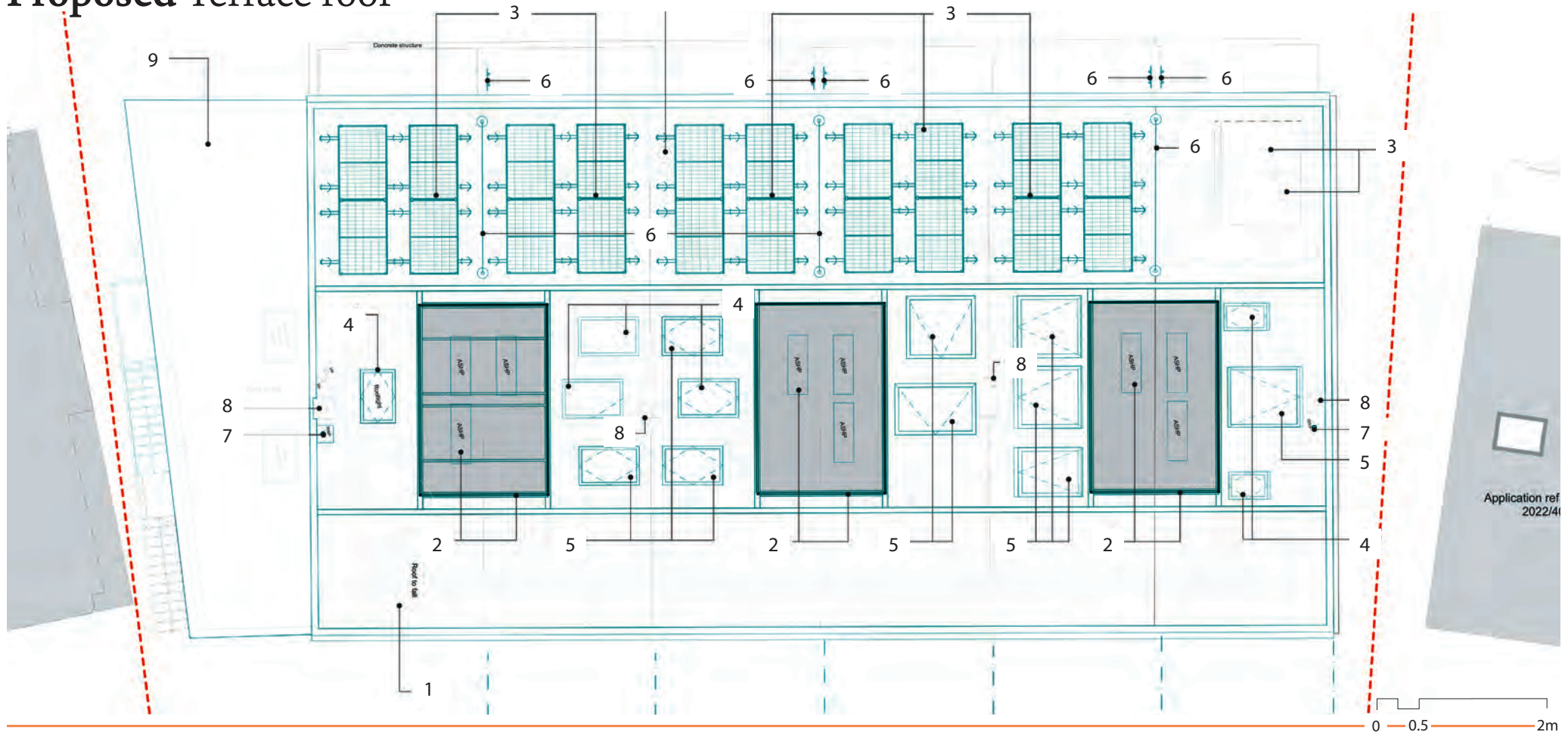
- 1. Existing roof extension at No.80
- 2. Existing greenhouse at No. 80
- 3. Existing roof lights

Existing Terrace roof



Existing Terrace roof plan: photographic survey

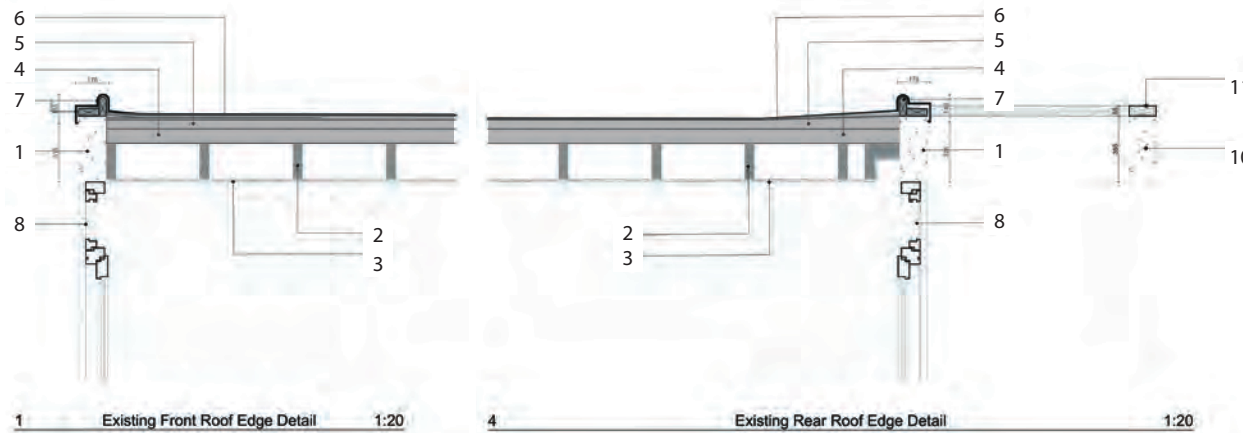
Proposed Terrace roof



Terrace roof plan key proposals :

- 1/ Re-surface and insulate the roof to improve the thermal performance of the buildings.
- 2/ Introduce acoustic louvred air source heat pump enclosures for residents who would like to install heat pumps now and to create future proof enclosures for those who might want to install in the future so that planning permission is sought only once and there is a consistent approach for the whole terrace.
- 3/ Similarly, introduce new solar panels at rear for residents who would like to install solar panels now or in the future and to allow for a consistent approach for the whole terrace. The existing solar panels at no90 are retained in their current location.
- 4/ Existing rooflight reinstated in current location following insulation of existing roof.
- 5/ Introduce new rooflights in keeping with the existing.
- 6/ Provide safe means of roof access for future maintenance via fixing points for movable ladders and mansafe system.
- 7/ Retain the existing RWPs at both terrace ends.
- 8/ Existing flue stacks repaired/ repointed.
- 9/ For no80 SHP extension proposed works please refer to no80 SHP separate application ref. 2024/0639/P & 2024/0912/L.

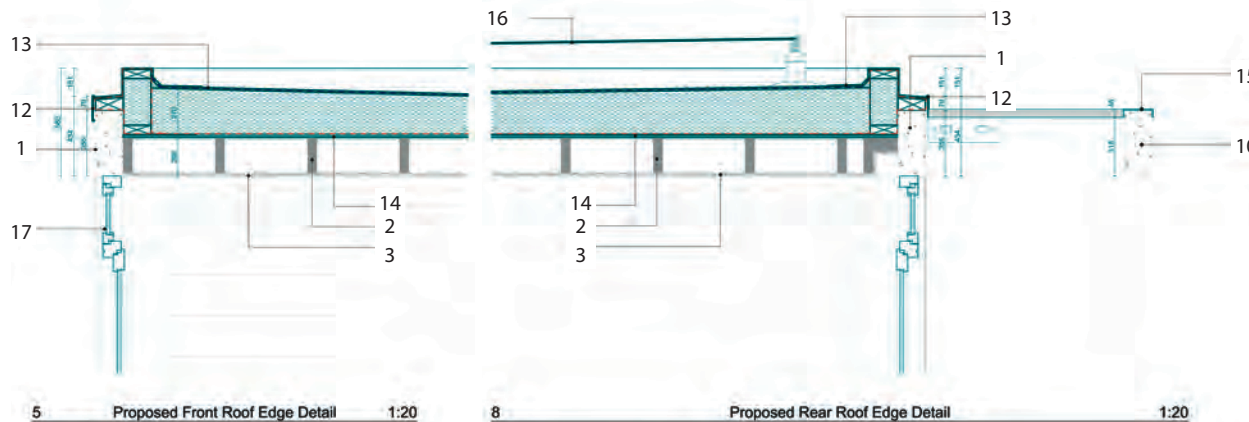
Proposals Existing and proposed roof build-up details



Existing roof build-up details

Key existing

1. Existing concrete perimeter beam
2. Existing 190x50mm timber joists on hangers - assumed at 500mm centres
3. Existing internal timber (or plasterboard for some units) finish
4. Existing woodwool slab
5. Cork insulation
6. Derbigum membrane over previous roofing membrane layers
7. Perimeter upstand formed over timber perimeter batten and UPVC flashing
8. Existing windows
9. Existing flue stack refurbished/ repainted
10. Exposed concrete perimeter beam to rear terraces
11. Rotten timber plates on mechanically fixed to concrete perimeter beams
Timber plates and fixings are causing damage to the concrete beams by facilitating water ingress and cracking



Proposed roof build-up details

Key proposed

12. GRP trim mechanically fixed to upstand, to match existing
13. New bituminous roll-out membrane waterproofing installed & insulation to 1:80 fall. New roof build up to achieve U-Value of 0.15 W/m²K. New roof parapet to accommodate the new increased roof build-up
14. New 18mm Ply decking
15. New protective metal capping to be installed following concrete cleaning and repairs. Concrete repaired where damaged by existing fixings with matching concrete mortar repairs
16. New mansafe system for safe roof access and maintenance
17. New hardwood double glazed timber windows to match original 1950s design
18. New solar panels set at minimum angle (10deg)
19. Ladder securing point for safe roof access, mechanically fixed to concrete beams

0 0.2 0.5m

The roof upgrade will involve the careful removal of the existing covering as well as the woodwool slabs below which sit directly onto the existing timber roof joists. This will then be replaced with rigid insulation laid to falls, with the existing timber joist and ceiling surfaces below remaining unaffected. The parapet detail is set back so as to minimise the impact of the increased roof build-up thickness on the appearance of the concrete

ring beam.

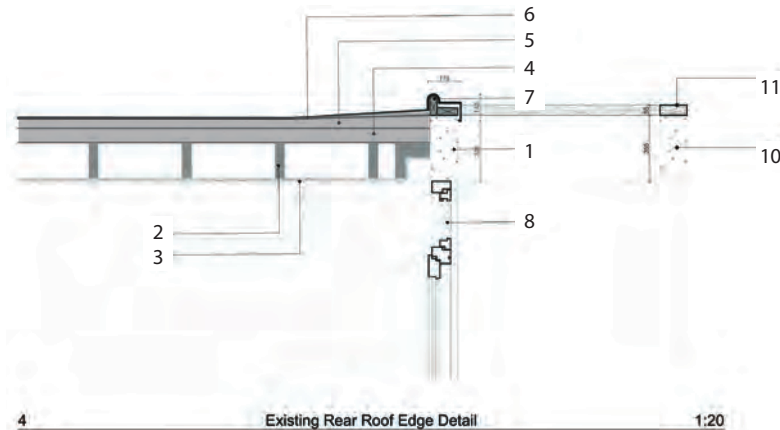
The proposed new roof over the no.80 extension will have a slightly slimmer build up than the rest of the roof. This will emphasise the relative primacy of the terrace over the no.80 extension.

Refer to no.80 application 2024/0639/P & 2024/0912/L

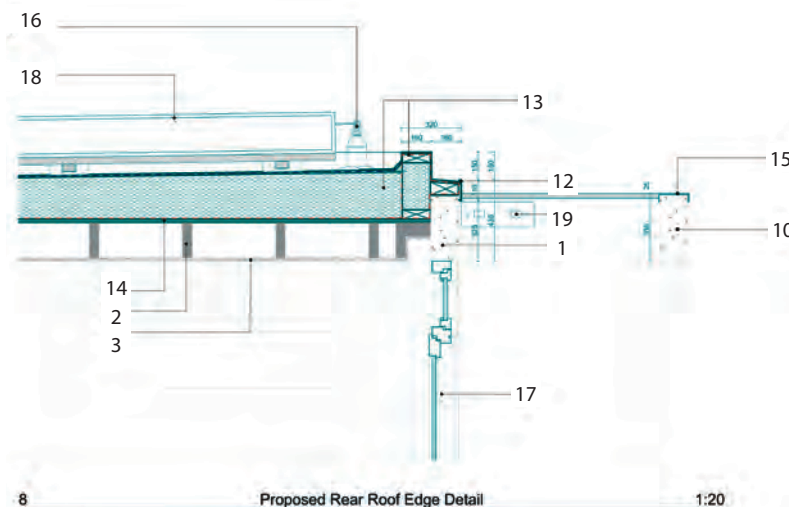
Proposals Proposed safe roof access



Existing unsafe roof access



Existing roof build-up details



Proposed roof build-up details

0 0.2 0.5m

Key existing

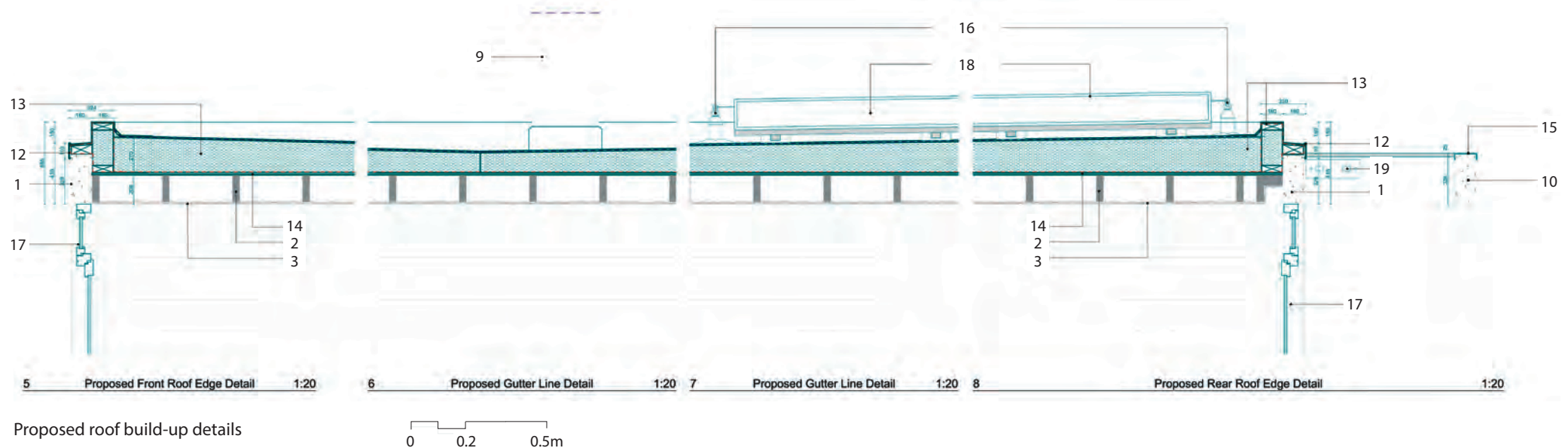
1. Existing concrete perimeter beam
 2. Existing 190x50mm timber joists on hangers - assumed at 500mm centres
 3. Existing internal timber (or plasterboard for some units) finish
 4. Existing woodwool slab
 5. Cork insulation
 6. Derbigum membrane over previous roofing membrane layers
 7. Perimeter upstand formed over timber perimeter batten and UPVC flashing
 8. Existing windows
 9. Existing flue stack refurbished/ repointed
 10. Exposed concrete perimeter beam to rear terraces
 11. Rotten timber plates on mechanically fixed to concrete perimeter beams
- Timber plates and fixings are causing damage to the concrete beams by facilitating water ingress and cracking

Key proposed

12. GRP trim mechanically fixed to upstand, to match existing
13. New bituminous roll-out membrane waterproofing installed & insulation to 1:80 fall, New roof build up to achieve U-Value of 0.15 W/m²K. New roof parapet to accommodate the new increased roof build-up
14. New 18mm Ply decking
15. New protective metal capping to be installed following concrete cleaning and repairs. Concrete repaired where damaged by existing fixings with matching concrete mortar repairs
16. New mansafe system for safe roof access and maintenance
17. New hardwood double glazed timber windows to match original 1950s design
18. New solar panels set at minimum angle (10deg)
19. Ladder securing point for safe roof access, mechanically fixed to concrete beams

There is currently no means of safe access to the terrace roof. It is proposed to install safety hooking points for movable ladders to the rear terraces' concrete beams. A mansafe system installed as part of the terrace roof improvements will also allow for safe roof access for maintenance

Proposals Proposed solar panels at rear



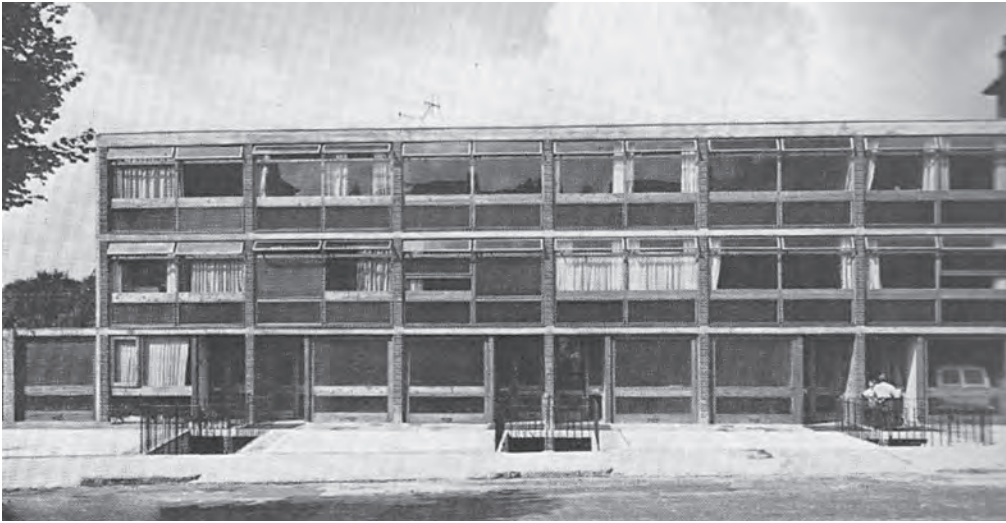
Key existing

1. Existing concrete perimeter beam
2. Existing 190x50mm timber joists on hangers - assumed at 500mm centres
3. Existing internal timber (or plasterboard for some units) finish
4. Existing woodwool slab
5. Cork insulation
6. Derbigum membrane over previous roofing membrane layers
7. Perimeter upstand formed over timber perimeter batten and front flashing fascia
8. Existing aluminium windows
9. Existing chimney stack behind
10. Existing exposed concrete perimeter beam to rear terraces
11. Rotten timber plates on mechanically fixed to concrete perimeter beams
Timber plates and fixings are causing the concrete to expand and crack

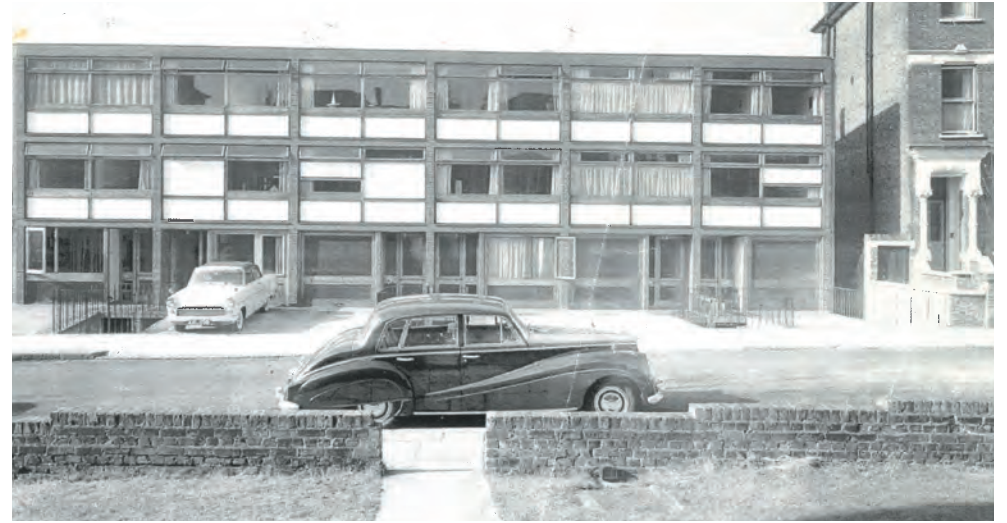
12. Bauder GRP trim mechanically fixed to match existing
13. Bauder bitumen & insulation system to 1:80 fall. New roof build up to achieve U-Value of 0.15 W/m²K. New roof parapet to accommodate the new increased roof build-up
14. New 18mm Ply decking
15. New protective metal capping to be installed following concrete cleaning and repairs. Concrete repaired where damaged by existing fixings with matching concrete mortar repairs
16. New mansafe system for safe roof access and maintenance
17. New hardwood double glazed timber windows to match original 1950s design
18. New solar panels set at minimum angle (10deg)
19. Ladder securing point for safe roof access, mechanically fixed to concrete beams

Together with the improvements to safe roof access it is proposed to introduce a new solar panel array at rear to allow for a consistent approach across the whole terrace. Together with the ASHPs, the solar panels will help the carbon footprint of the residential units. The existing solar panels at no90 are retained in their current location.

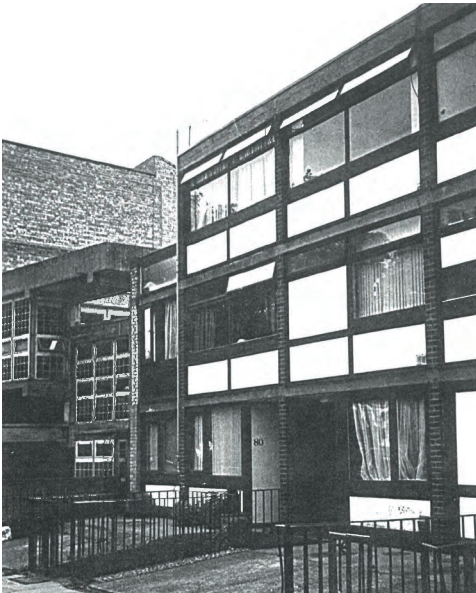
Proposals Front elevation progression



View of the original elevation of no. 80 to no.90 South Hill Park showing lower solid back-painted panels and concrete ring beams left as self-finished



View of the elevation of the terrace in the late 50s / early '60s showing variations in fenestration and that white, solid panels have been introduced



Views of the of the terrace in 1970-80s showing that the concrete ring beams appear to have been painted and some glazing has been replaced. A First Floor extension has also been introduced to no.80 designed by Gill Howell with a second Floor terrace



View of the terrace at present showing now dark, aluminium framed windows and the concrete ring beams painted to a darker colour than the previous iterations. Additions to the no.80 extension were made on the second floor with a lean-to bedroom and greenhouse added, compromising the overall design consistency.

Existing Terrace front facade

For no.80 SHP extension elevation
refer to no80 SHP separate application ref.
2024/0639/P & 2024/0912/L



Existing facade

Note painted concrete ring beams

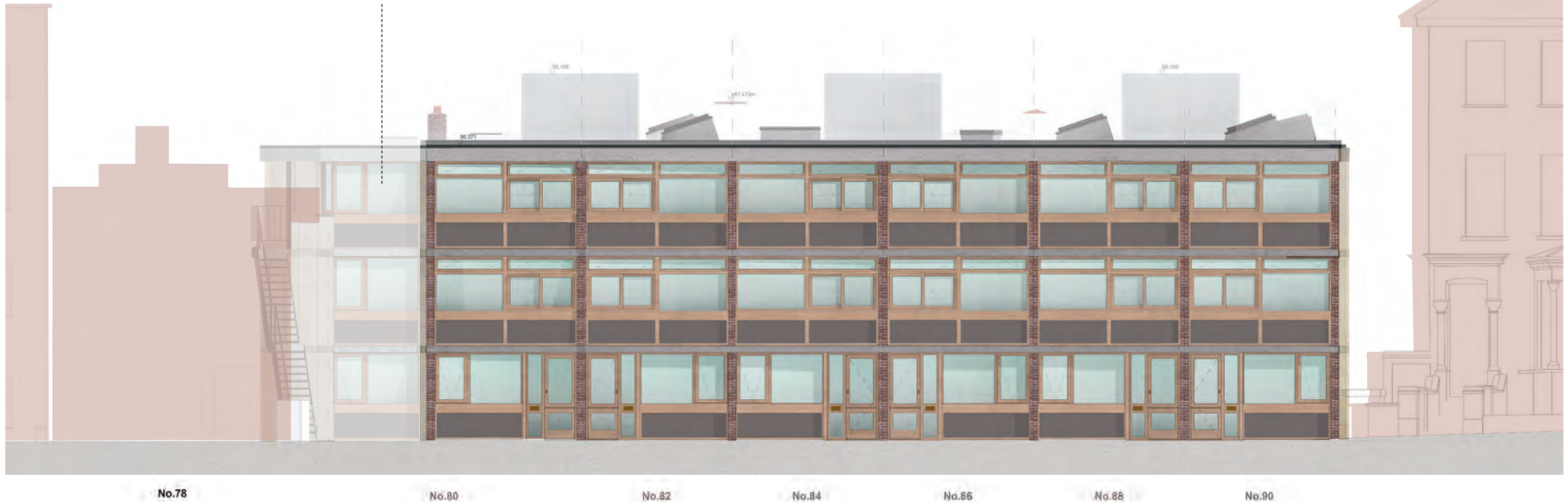
White solid lower spandrel panels to glazing

Aluminium framed windows

Flimsy 2nd floor extension to no.80 - refer to no80 SHP separate application

Proposals Terrace front facade

For no.80 SHP extension elevation
refer to no80 SHP separate application ref.
2024/0639/P & 2024/0912/L



Proposed facade

Note repaired and exposed concrete ring beams. Methodology will be control tested. If not effective or if the extent of the concrete repairs will be too extensive impacting on appearance and giving a patchy appearance, we would propose a Keim Lasur concrete stain as an alternative, which still allows for aggregate to be visible. Control testing will also apply in this case.

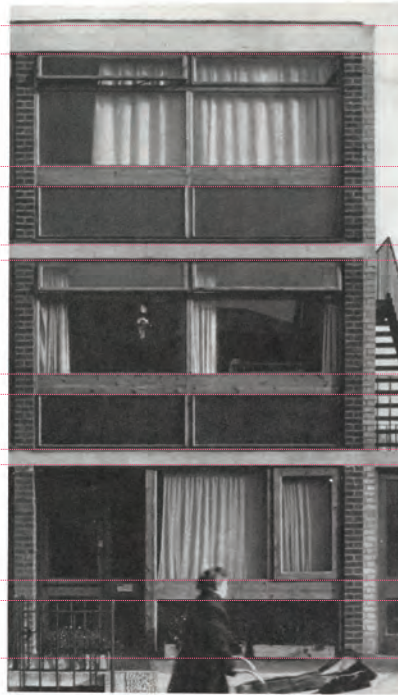
Aluminium framed windows replaced with hardwood timber windows. Uninsulated white solid lower spandrel panels are to be replaced with back painted and insulated Georgian-wired glass.

For no.80 SHP proposal, please refer to no80 SHP separate application ref. 2024/0639/P & 2024/0912/L.

Proposal Reinstatement of timber window layout and proportions



Front Elevation, typical proposed window bay



Front Elevation, original elevation details, 1956 (flipped for reference)



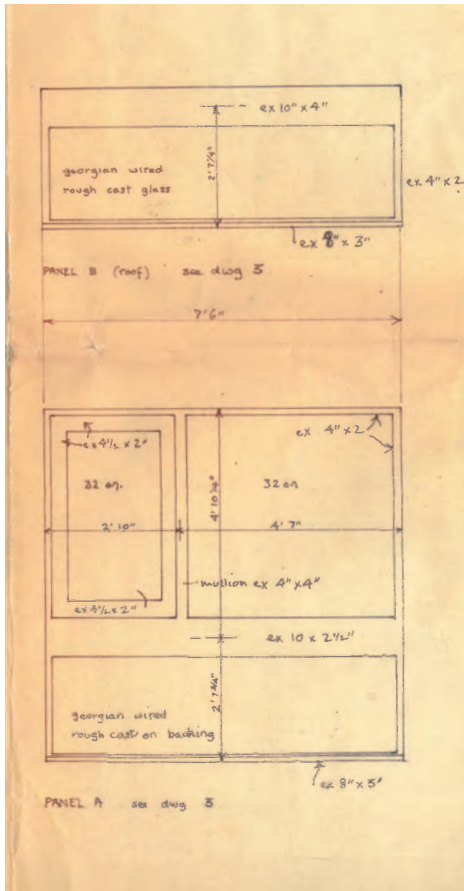
Proposed front rendered elevation

Bill and Gill Howell and Stan Amis's design was directly inspired by the contemporaneous Roehampton Lane Estate - with a common source of inspiration in Corbusier's Unite d'habitation, which they visited in person.

The Howells' preoccupation was however with translating these principles into terrace form in innovative, low cost, space efficient ways and that is the significance that South Hill Park represents.

Using 'Modulor'/Golden Mean proportions, the glazing has been set out meticulously and one of the key drivers of the project is to reinstate this principle in timber joinery as per the original, bringing back a warmth and clear hierarchy to the composition. At present, the concrete ring beams are painted to match the aluminium glazing, which in turn is a similar shade to the vertical brick piers. The overall effect being to muddy the clarity of the original design.

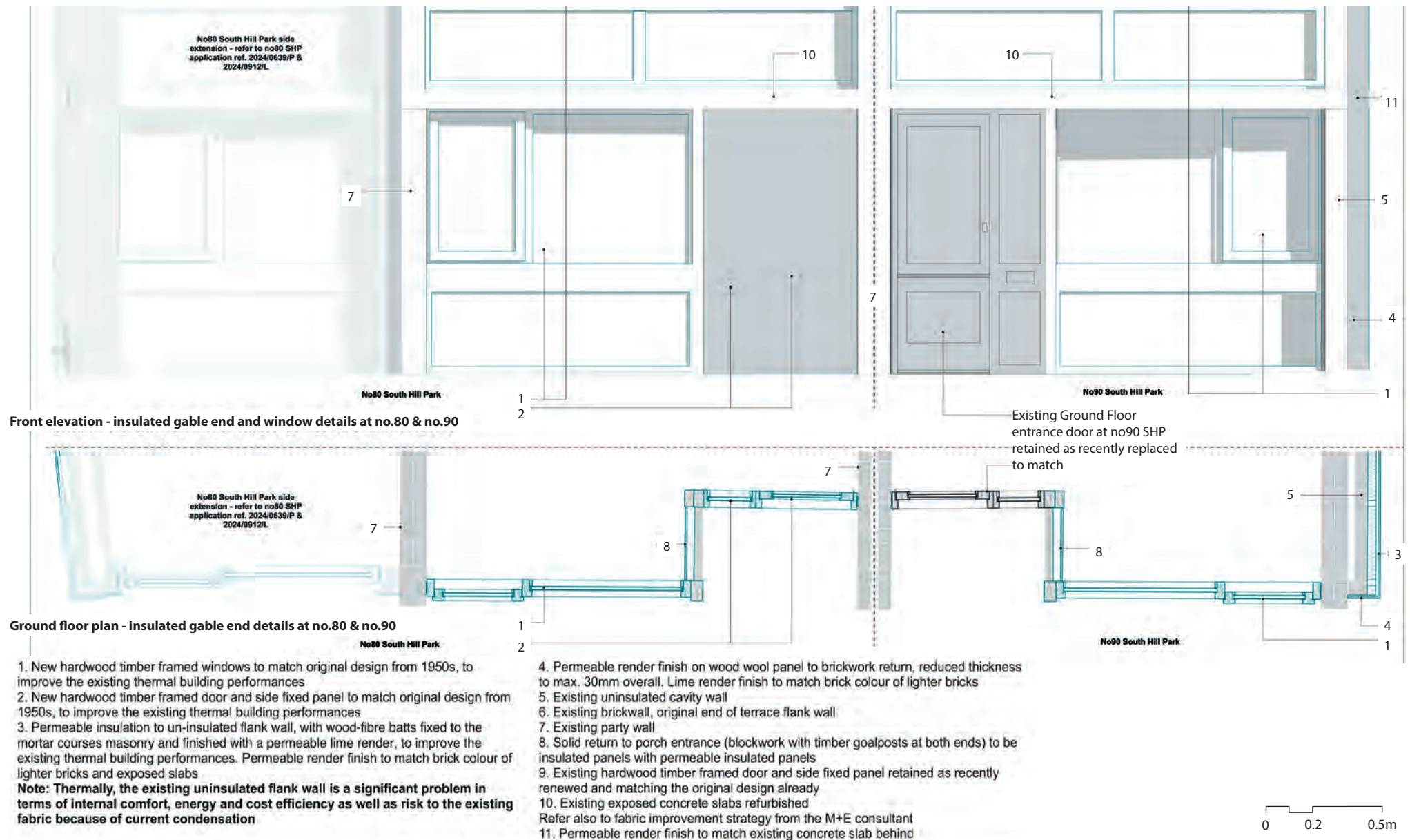
Proposals Glazing details



Examining the Howells' original drawings and specification, it is clear that the lower opaque panels were in fact back painted Georgian wired glass. This was replaced with solid white spandrel panels in the 60s which arguably compromised the aesthetic balance of the facade composition, with these bright white visually jarring elements. This change also included changing some of the fenestration and fixed panels arrangements. Our proposals seek to revert to the original specification, with lower span-

drel panels made with back painted Georgian wired glass, but with insulated solid panels to the interior face. Externally this would therefore appear as per the original design, but would offer a more practical and energy efficient internal wall lining.

Proposals Joinery details for opening, sliding and fixed pane units



The exact timber section sizes cannot be exactly replicated since the frames also need to conform to building regulations part L to be thermally

broken, however the fenestration layout and the proportional relationships between the glazing sections is in line with original design intent.

Proposals Front facade reinstatement heritage impact



Existing photo of the end flank wall of no.90 SHP

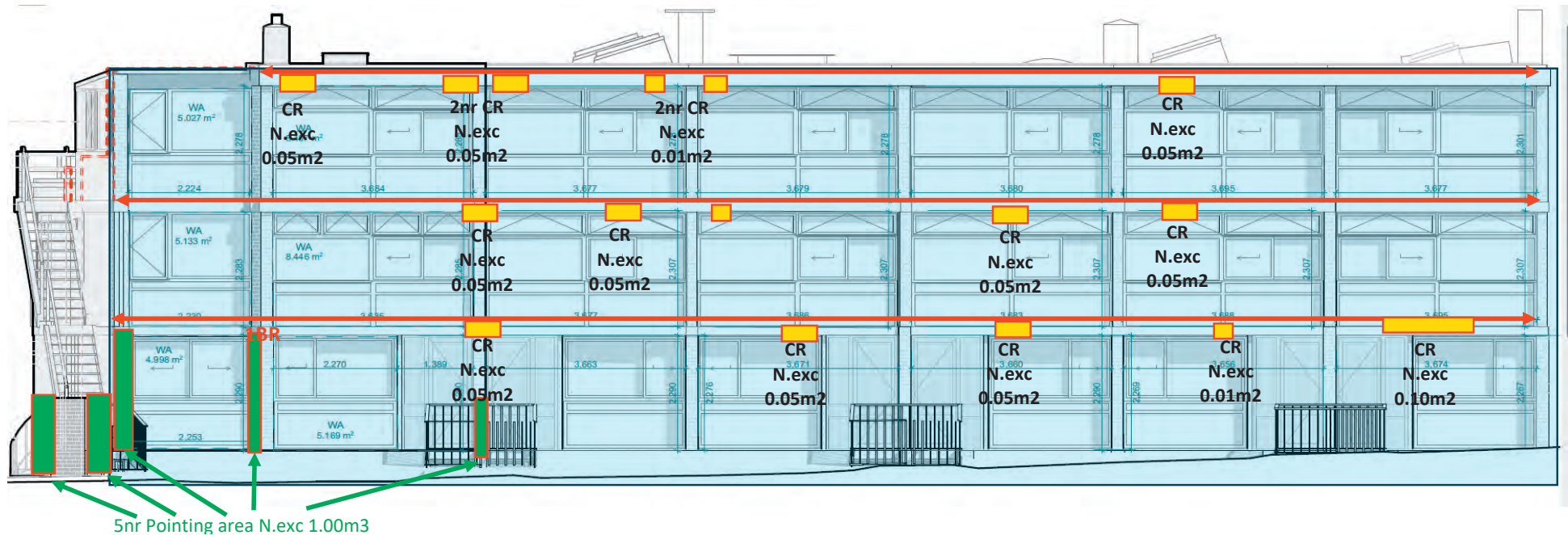
Works to the front facade will present a significant improvement to the Grade II Listed terrace in a number of ways:
Reinstating original materials, fenestration layout and proportions
Designing and carrying out the works in a unified way across the terrace in the spirit of the original Howell Killick Partridge Amis design ethos.
Repairing the concrete ring beams so as to reinstate the visual rhythm of lateral exposed concrete beams punctuated by vertical brick party walls.
Since the concrete has been painted dark, the horizontal concrete is perceived as part of the current dark framing of the windows, which compromises the original design.



Proposed view of the end flank wall of no.90 SHP

The proposed external insulation to the terrace flank walls also returns to the front of the extension, reinforcing the perception that it complements the terrace but is a clear addition as per Gill Howell's original intent.

Proposals Terrace front facade masonry and concrete repair scope



↔ = Paint removal area

■ = Pointing Area (PA)

BR = Brick replacement

FL = Chimney Flaunching

Paint removal to lower beams = 2nr @ 28lin m x 0.3m

Paint removal to top beam = 1r @ 24.5 lin m x 500mm

■ = Concrete repairs Depth N.exc 50mm (CR)

■ = Doff clean Area

Proposed repair work (based on a ground based survey undertaken in 2023 by Kafften's)

The proposal is to gently doff clean the elevation before carrying out any other works. This will benefit colour matching and remove organic materials such as moss that may be causing damage and concealing necessary repair locations. Paintwork will also be removed from concrete beams to allow a hammer test survey to identify spalling concrete caused by cor-

rosion of the steel reinforcement. A concrete repair mortar Foscro hb45 is then proposed. Control tests will be carried out. Depending on the extent of the repairs required and the achievable quality of the repair mortar, the concrete will ideally be left exposed. If the finish is patchy, a Keim concrete Lasur stain (rather than a paint) is proposed. This allows the granular nature of the concrete aggregate to still be visible. Leaving exposed versus applying a stain will be determined through controlled testing on site.

Proposals Rooftop air source heat pump acoustic assessment

For no.80 SHP extension elevation
refer to no80 SHP separate application ref.
2024/0639/P & 2024/0912/L



Rendered view of the terrace showing the new ASHP louvred acoustic enclosures

The proposed installation comprises one ASHP per dwelling for no. 82, 84, 88 and 90 South Hill Park and two for no.80 and 86 which are divided in two separate residential units. The units are currently proposed to be located adjacent to the party walls in two clusters of two units and one cluster of three units. The positioning of the units near to the centre of the roof avoids a line of sight from the windows of the nearest neighbouring building (92 South Hill Park) which will reduce the level of ASHP noise received. Each group of ASHPs will be enclosed by acoustic louvre screens which will help contain the emitted noise and reduce the levels reaching the neighbouring buildings and the rooflights of No.80 to 90.

The ASHP predicted noise levels meets the Camden Council noise criteria of 10dB below night-time background noise.

A new low-lying horizontal steel frame is to be formed above the existing roof level on which the ASHPs will be mounted. This structure will be supported on anti-vibration pads on the top of the masonry separating walls to avoid the transmission of any vibration from the ASHPs to the light-weight roof or building structure.

Please refer to Appendix 4 for the Preliminary ASHP Noise Assessment & Control Strategy compiled by ALN Acoustic Design.

Proposals Heritage impact assessment of rooftop air source heat pumps



Wireframe south view of no. 80 to no.90 South Hill Park proposal



Wireframe north view of no. 80 to no.90 South Hill Park proposal

Our assessment is that the air source heat pump enclosures are marginally visible from the street and that in fact, some articulation of the flat roof, adding in some intermittent, but regularly spaced higher elements positively contributes to stitching the terrace into the height of the adjacent Victorian buildings more effectively.

The air source heat pumps would only be visible from the upper floors of the houses adjacent and within the long view from the Heath - see section on rear facade. The air source heat pumps have been located as far as possible from the perimeter of the terrace roof and mirror the symmetry of the porch

entrances at ground level. Again we feel that there is impact, which could be characterised as harm but this is balanced by the clear and significant sustainability benefit as well as the fact that the rear view is a very long view and it sits within the context of higgledy piggledy backs of houses that all have their idiosyncracies. In that sense, therefore the ASHPs are not considered to be causing undue harm.

Proposals Terrace rear facade



South Hill Park existing elevation

The view towards the terrace from the Heath is a critical and beautiful view to preserve and enhance.

In this long view, there are a variety of adhoc additions to the roof eg TV aerials, rooflights, solar panels at no.90, a rooftop greenhouse at no. 80. Our proposals seek to rationalise and upgrade the rooftop. Please also refer to separate application ref. 2024/0639/P & 20240912/L in relation to the no.80 extension.

Proposals Terrace rear facade



South Hill Park existing rear elevation

The existing rear elevation does not require significant remodelling (except for the top floor of the no.80 extension).

Over the years, balustrades and other details have been replaced in unsympathetic materials/colours whilst the timber framing and brise soleils has rotted in several places.

The priority is repair, sensitive conservation and overdue maintenance as well as the removal of unsympathetic details such as modern balustrades that detract from the whole and replacing this with the original timber and glazed balustrade arrangement.

Proposals Terrace rear facade existing defects



Existing rear view photos of South Hill Park



Existing rear view photos of South Hill Park showing rotten timber capping plates over the rear concrete terrace frames



Photos show the current condition of timber, masonry and concrete requiring significant repair as well as an accretion of unsympathetic additions of balustrades, greenhouses and glazing details that are not in keeping with the original design intent of the Grade II Listed Building.

Proposals Terrace rear facade existing defects



Existing rear view photos of South Hill Park showing concrete spalling and steel corrosion

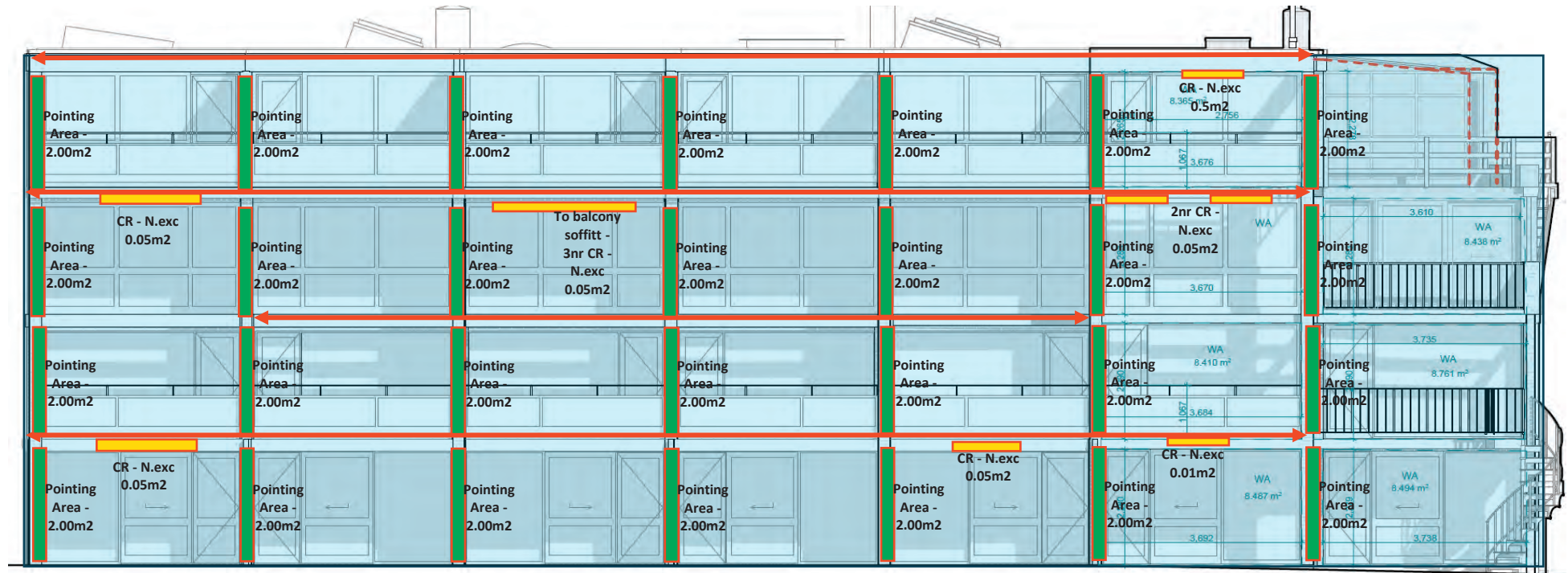


Existing rear view photos of South Hill Park showing dilapidated timber brise soleils



Existing rear view photos of South Hill Park unsympathetic additions of balustrades, greenhouse and glazing details

Proposals Terrace rear facade masonry repair scope



↔ = Paint removal area

■ = Pointing Area (PA)

BR = Brick replacement

FL = Chimney Flaunching

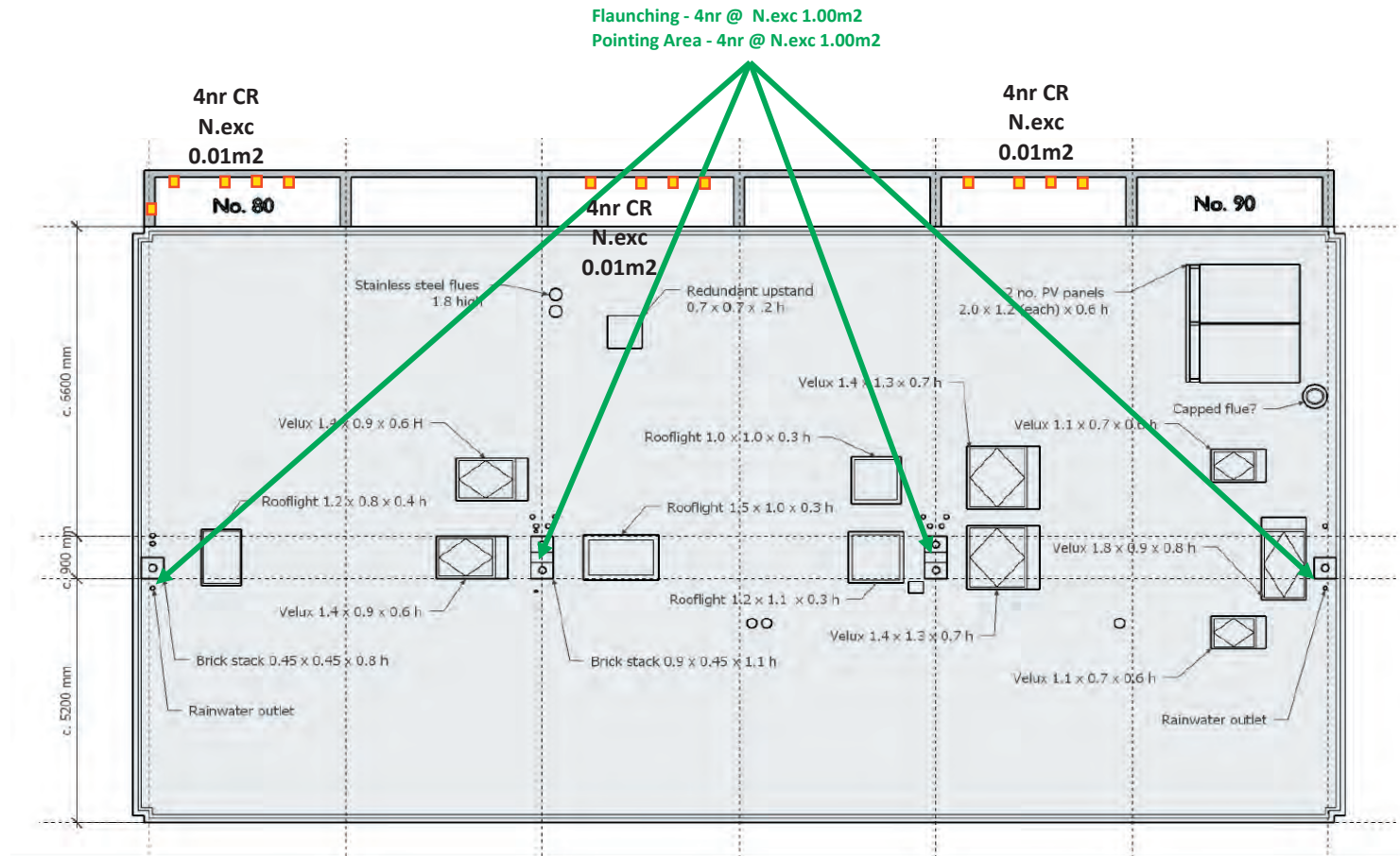
Paint removal to lower beams = 2nr @ 28lin m x 0.3m

Paint removal to top beam = 1r @ 24.5 lin m x 500mm

■ = Concrete repairs Depth N.exc 50mm (CR)

■ = Doff clean Area

Proposals Terrace roof repair scope



↔ = Paint removal area

■ = Pointing Area (PA)

BR = Brick replacement

FL = Chimney Flaunching

Paint removal to lower beams = 2nr @ 28lin m x 0.3m

Paint removal to top beam = 1r @ 24.5 lin m x 500mm

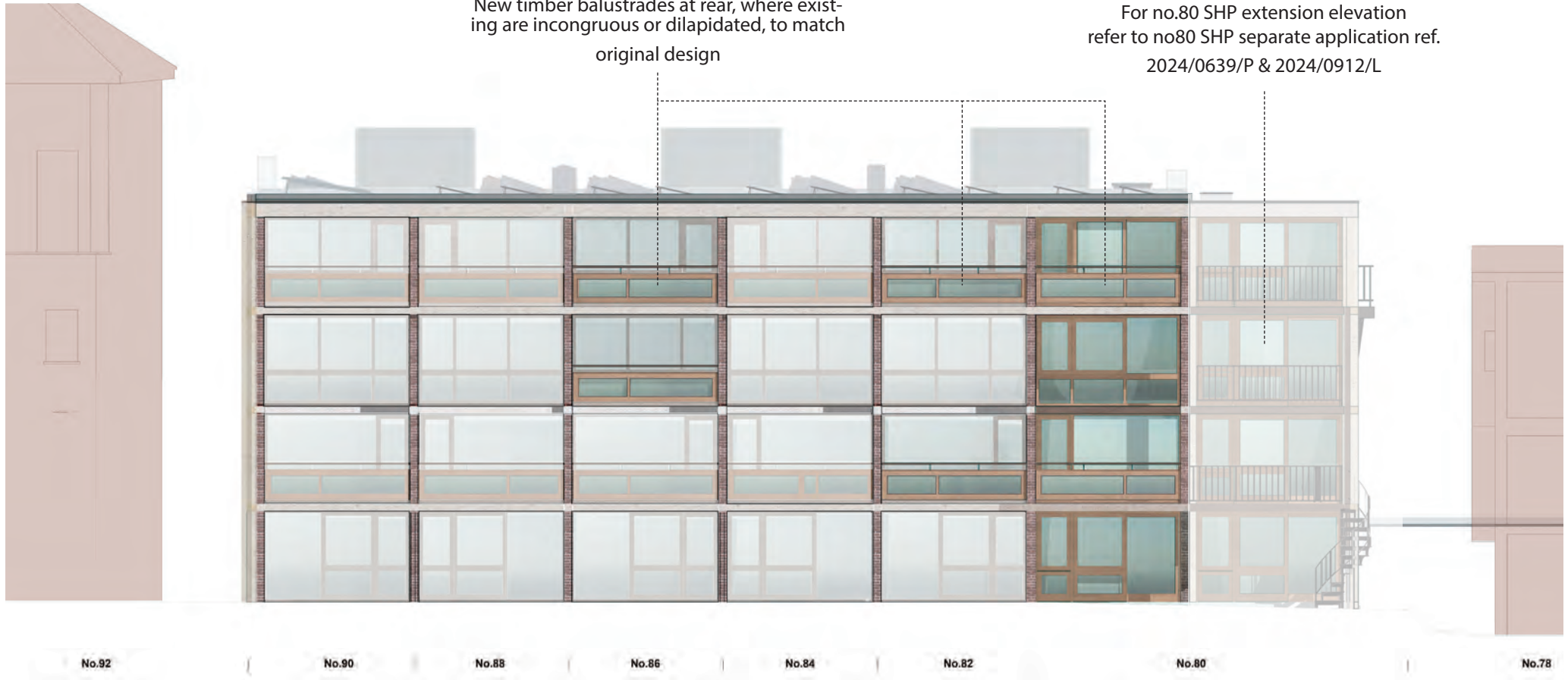
■ = Concrete repairs Depth N.exc 50mm (CR)

■ = Doff clean Area

Proposals Terrace rear facade proposed elevation

New timber balustrades at rear, where existing are incongruous or dilapidated, to match original design

For no.80 SHP extension elevation refer to no80 SHP separate application ref. 2024/0639/P & 2024/0912/L



Proposed terrace rear elevation

Similar to the front elevation, the proposals to the rear are designed to create a more unified appearance across the terrace in terms of materials, finishes and colours. This work will also future proof the buildings, by undertaking necessary repairs which, if left will cause significant harm to the Listed Buildings.

External insulation to the flank wall returns to the rear extension and is finished in the same lighter colour as the existing flank wall brickwork, which distinguishes it from the darker colour of the brickwork party walls of the main terrace.

Proposals Terrace rear facade heritage impact assessment



Rendered view from Hampstead Heath

The air source heat pumps are shown here and are visible from the long view which could be characterised as harm, however we believe that they are largely lost within the view and blend with the roofscapes beyond, whilst the sustainability benefits are clear.

Being broken down into three distinct enclosures (PPC to RAL colour no. 7044), these follow the paired symmetry across the terrace and reduces their visual impact by allowing glimpses through and around them.

Photo-voltaic panels are also proposed across the rear of the terrace roof. These will be installed almost flat at 10 degrees, only marginally impacting on the terrace roof parapet line when seen from far opposite the Heath. The existing solar panels at no. 90 SHP are proposed to be retained. A consistent approach to the terrace fabric repairs and reinstatement of original balustrade and brise-soleil details will be an overwhelmingly positive impact.

Proposals Terrace rear facade heritage impact assessment



Existing view of the terrace from Hampstead Heath



Proposed view of the terrace from Hampstead Heath

Proposals Sustainability strategy



Rendered view of no. 80 extension and externally insulated flank wall



Rendered view of flank wall with external insulation at no90 end of terrace



Proposed rendered view of the terrace from Hampstead Heath

Sustainability strategy overview

The narrow front deep plan form of the terrace means that mid terrace houses are inherently fairly energy efficient, especially since some of the houses have already upgraded to double glazing. However, the roof and the end of terrace homes are clear thermal weak points, so the most important proposal is a fabric first approach to insulate the roof and flank walls at either end of the terrace, moving from 1.7 W/m²K U-Value to 0.6 W/m²K U-Value for the end of terrace walls and from 1.7 W/m²K U-Value to 0.15 W/m²K U-Value for the terrace roof, which meet the Approved Document Part L requirements.

Air Source Heat Pumps

The existing dwellings are typically heated using gas-fired boilers. The proposal considers constructing a terrace-wide solution which will enable all dwellings within the terrace to install ASHP's to allow the terrace to move away from natural gas heating system and to reduce the overall Carbon Dioxide (CO₂) Emissions of the properties.

The ASHP technology is currently the only viable and energy efficient option (please refer to the MEP engineer's report attached).

The MEP engineer has carried out an energy assessment which shows that a single ASHP of a suitable size will be sufficient to serve each of the dwellings (refer to MEP engineer's report). It is proposed to visually and acoustically screen the ASHP's within dedicated louvred enclosures. The ASHP enclosures align and complements the existing arrangement of the houses and follows the pattern of the paired porch entrances off the street at ground floor. The location of the ASHP enclosure, centred along the terrace roof, also minimise impact on the street views and views across the Hampstead ponds.

For the purposes of unity across the terrace, all the enclosures are the same size, enabling up to two ASHP's to be accommodated in each house, which is essential for those houses which already have been split into two dwellings (80 and 86) and future-proofs the other houses should they ever be sub-divided.

Proposals Sustainability strategy



Existing roof towards rear garden

The ASHP's are enclosed by metal louvred screens which provide acoustic attenuation for air-borne sound as well as visual screening (refer to the acoustic engineer's report).

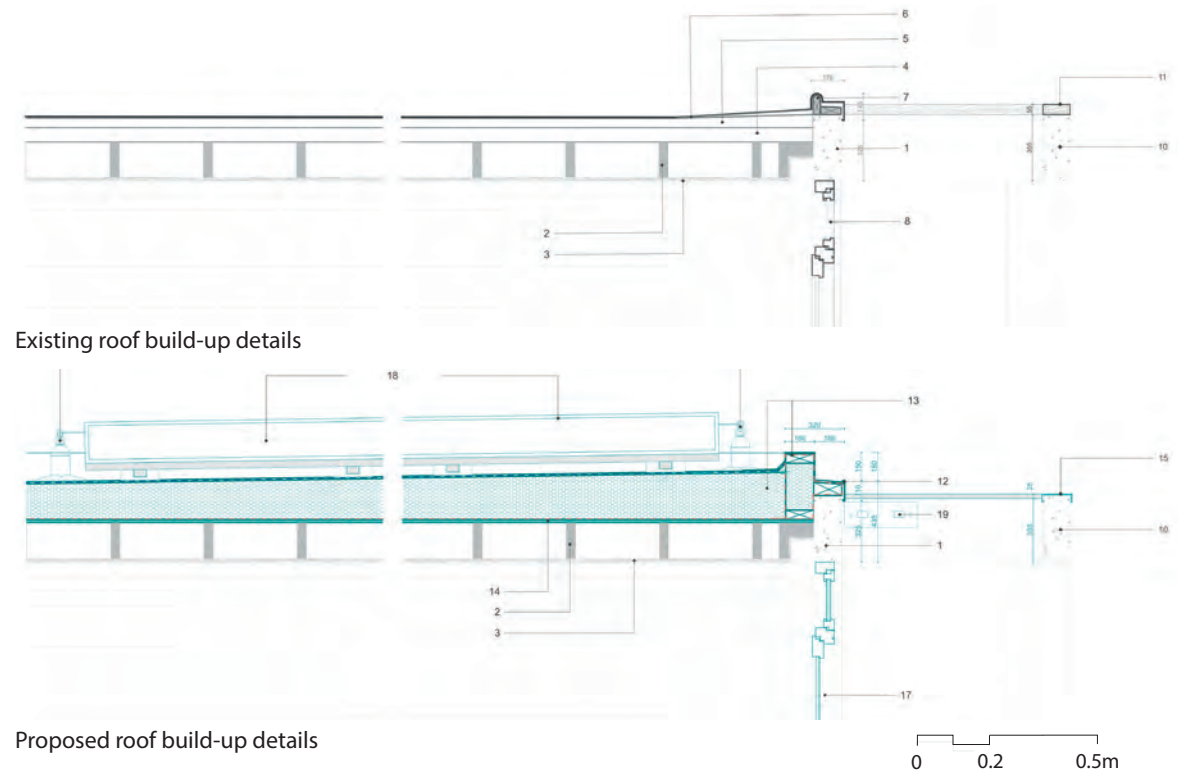
To avoid structure-borne sound entering the properties the ASHP's and screens will be installed onto a simple steel frame which will span from party wall to party wall and be connected to the party walls via anti-vibration mounts.

Photo-voltaic panels

Photo-voltaic panels are also proposed across the rear of the terrace roof. These will be installed almost flat at 10degrees, only marginally impacting on the terrace roof parapet line when seen from far opposite the Heath. The existing solar panels at no. 90 SHP are proposed to be retained.

Access for maintenance

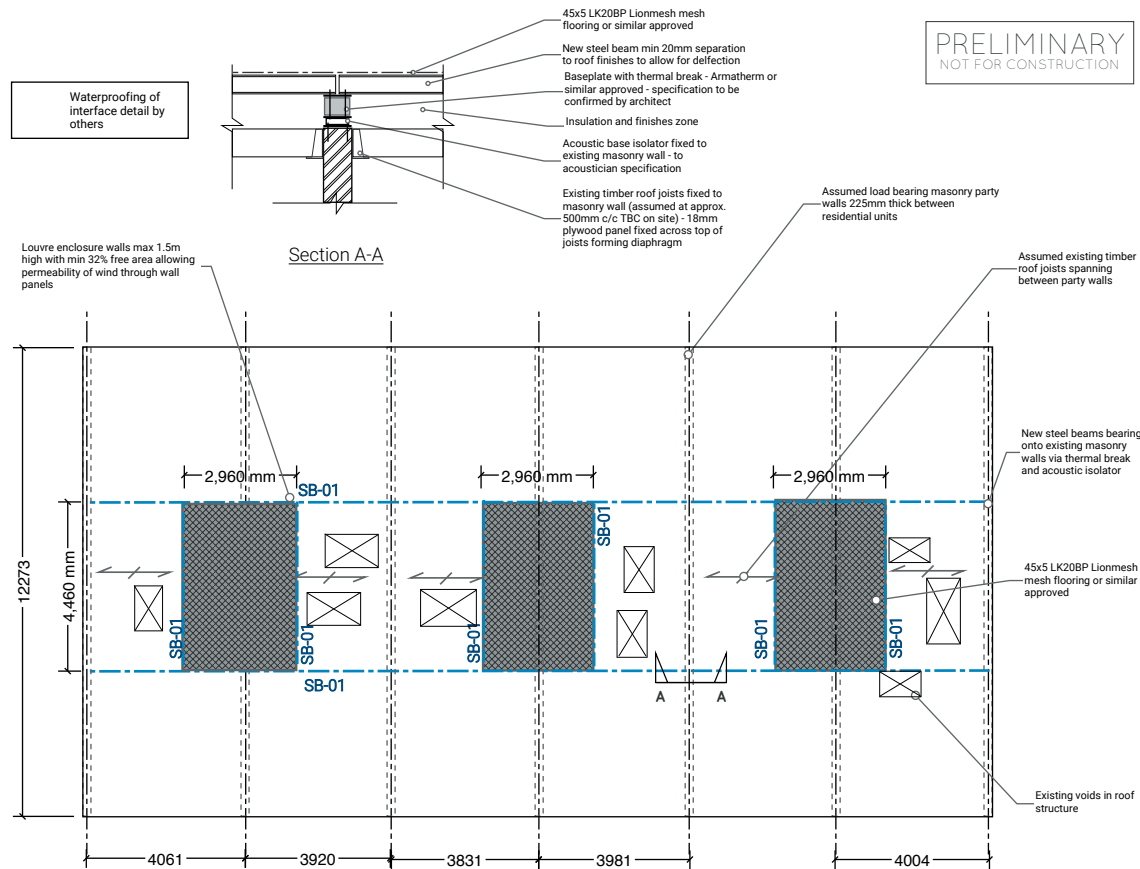
There is no safe access to the terrace roof currently. It is now proposed that



access will be gained either via an openable hatch (or rooflight) at no.80 and via movable ladders at each other house which can be attached securely to each upper rear balcony, along with a suitable 'man-safe' system (harness and anchor points). Please refer to the MEP engineer's report attached and Structural Engineer information.

Historic England's guidance on *Energy Efficiency and Historic Buildings Insulating Solid Walls* (<https://historicengland.org.uk/images-books/publications/eehb-insulating-solid-walls/>) has been carefully considered when detailing the fabric thermal improvements as well as *Energy Efficiency and Historic Buildings Insulating Early Cavity Walls* (<https://historicengland.org.uk/images-books/publications/eehb-early-cavity-walls/heag083-early-cavity-walls/>).

Proposals Structural strategy



PRELIMINARY
NOT FOR CONSTRUCTION

NOTES

1. NO DIMENSIONS TO BE SCALED FROM THIS DRAWING
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, SERVICES AND ENGINEERS DRAWINGS TOGETHER WITH THE RELEVANT SPECIFICATION AND GENERAL NOTES
3. ANY NON STRUCTURAL ITEMS SUCH AS WATERPROOFING, CLADDING, FINISHES, FIRE STOPPING ARE TO BE THE ARCHITECTS SPECIFICATIONS.
4. ALL PROPRIETARY PRODUCTS ARE TO BE USED AND INSTALLED STRICTLY IN ACCORDANCE WITH THE MANUFACTURERS DETAILS AND REQUIREMENTS.
5. THE STRUCTURE IS DESIGNED AND DETAILED FOR THE PERMANANT CONDITION ONLY THE CONTRACTOR IS RESPONSIBLE FOR THE STRUCTURE IN ITS TEMPORARY CONDITION, ANY TEMPORARY WORKS REQUIRED DURING CONSTRUCTION AND ANY TEMPORARY LOADS ONTO THE EXISTING AND NEW STRUCTURE WHICH SHALL BE LESS THAN THOSE FOR WHICH IT HAS BEEN CONFIRMED OR DESIGNED RESPECTIVELY
6. ALL WORKS UNDERTAKEN BY CONTRACTOR TO BE COMPLIANT WITH RELEVANT AND CURRENT BUILDING CODES, REGULATIONS AND GOOD PRACTICES.

Key

- Proposed steel beam
- Existing/proposed roof joists

Assumed loading

- Weight of ASHP units confirm as 120kg each
- SIDL of enclosure mesh decking = 0.8kN/m²
- SIDL of enclosure louvred wall panels = 0.3kN/m²
- LL on decking (maintenance access) = 0.75kN/m²

All build ups to be confirmed as design develops, size and arrangement of structure subject to these

Steel schedule

SB-01 = UKB 152x89x16 (S275)

All exposed steelwork to have painted or galvanised protection system suitable to an external environment

PROJECT: SOUTH HILL PARK
SKETCH No: 1965-XX-SK-001

REV: 01
DATE: 14/12/23

TITLE: PLAN OF PROPOSED STRUCTURE FOR PLANT ENCLOSURES
DRAWN BY (CHECK): JH (Pi)

SIMPLE WORKS, UNIT 301, 203/213
MARE ST STUDIOS, LONDON, E8 3JS

To avoid structure-borne sound entering the properties the ASHP's and screens will be installed onto a simple steel frame which will span from party wall to party wall and be connected to the party walls via anti-vibration mounts.

Please refer to Structural Engineer drawing 1965-SK-001 attached in appendix.

Appendix 1 Site photos

Appendix 2 Full existing, demolition and proposed drawings

Appendix 3 Statutory Listing

Appendix 4 ASHP Noise Assessment

Appendix 5 Structural details