LANCASTER WEST NEIGHBOURHOOD TEAM

W11

Karakusevic Carson Architects

Initial Refurbishment Ideas

The Walkways

March 2021

With us tonight

LANCASTER WEST
NEIGHBOURHOOD TEAM
W11

James Caspell
Neighbourhood Director

Andros Loizou
Head of Refurbishment Design & Delivery

Bunmi Shekoni
Refurbishment Design & Delivery Project Manager

Alfie Peacock
Refurbishment Design & Delivery Project Officer

Janet Hall
Heat Network Engagement Manager

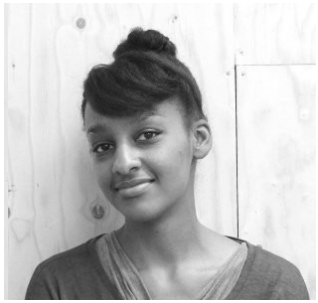
With us tonight

Karakusevic Carson Architects

John Moore
Technical Director

Caroline Hull
Project Associate

Sean McGee
Project Architect



Hajir Kheder
Community Engagement Manager

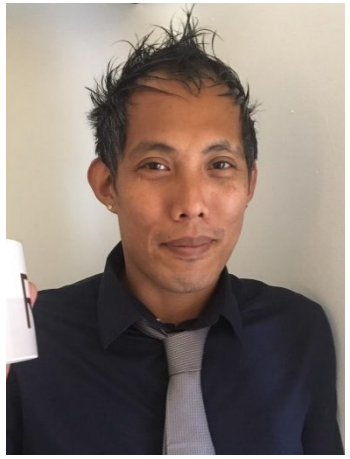
Madeleine Lundholm
Senior Engagement Manager

Beyond the Box Consultants

Neil Onions

With us tonight

The Walkways Community Engagement Assistants



Paul Corpuz

Melissa Holguin

Agenda

- James Caspell, Neighborhood Director will give a **brief introduction and update on funding**
- Karakusevic Carson Architects (KCA) will go through **your top 10 priorities** and the possible improvement works to your blocks
- Janet Hall, Heat Network Project Manager will introduce the **heat network proposals**

Where are we in the refurb process?

LWNT and KCA are currently exploring **design ideas** for improvements across The Walkways: Barandon Walk, Testerton Walk and Hurstway Walk, in response to previous consultation and feedback from residents.

Why are we meeting?

- Develop the approach to the **co-design process** with you in more detail
- Share our initial design response to the **Top 10 priorities** developed by residents in 2019/20
- Discuss **opportunities** to refurbish the Walkways block, and capture **ideas, concerns and questions from you**

Our Shared Vision

- **Delivering a 21st century model for social housing** making the existing buildings more energy-efficient, greener and safer

- **Homes that are carbon neutral by 2030**

- **Homes and spaces that are co-designed with residents, sensitively and collaboratively**

Funding News

Stop Press:
Additional funding news

What difference would ‘net zero-carbon’ make to your homes?

Net zero refers to the balance between the amount of **greenhouse gas produced** and the **amount removed** from the atmosphere. We reach net zero **when the amount we add is no more than the amount taken away.**

Net zero measures begin with a **Fabric first approach,** prioritising improvements to the buildings insulation and thermal performance. Achieving Net zero will also require a change to the source and efficiency of the heating system. **More on this later**

Key upgrades to windows, Atria, Roof and Basement fabric will make the biggest difference:

- Improved thermal comfort throughout winter and summer
- Better ventilation and indoor air quality
- Lower energy bills and leaseholder service charges

Repairs in the last 6 months

% of residents by block who have raised a repair, complaint or case by issue in the last 6 months

50 to 100+% of residents

20 to 50% of residents

Issue Type	Barandon Walk	Hurstway Walk	Testerton Walk
General Repairs	81.9%	89.3%	61.0%
Heating / Hot Water	92.1%	67.1%	52.0%
Plumbing	82.7%	72.1%	60.0%
Leaks	49.6%	52.9%	56.0%
Intercom / Door Entry / Locks	64.6%	41.4%	58.0%
Electrical	41.7%	31.4%	26.0%
Lighting	16.5%	18.6%	20.0%
Windows	5.5%	10.0%	6.0%
Drains / Gullies / Guttering	8.7%	10.0%	14.0%

- On average, every resident has reported a heating or hot water problem in the last six months,
- General plumbing and leaks remains a problem.
- **Door entry systems** also need replacement.

- **This suggests the buildings services have come to a point where they need comprehensive refurbishment to set them up for the next 25-30 years or more.**

Energy Performance Certificates

Testerton Walk

EPC Rating	Homes	%
A	0	0%
B	0	0%
C	11	29%
D	25	66%
E	0	0%
F	2	5%
G	0	0%
No EPC	62	-

Hurstway Walk

EPC Rating	Homes	%
A	0	0%
B	0	0%
C	16	31%
D	34	65%
E	1	2%
F	1	2%
G	0	0%
No EPC	88	-

Barandon Walk

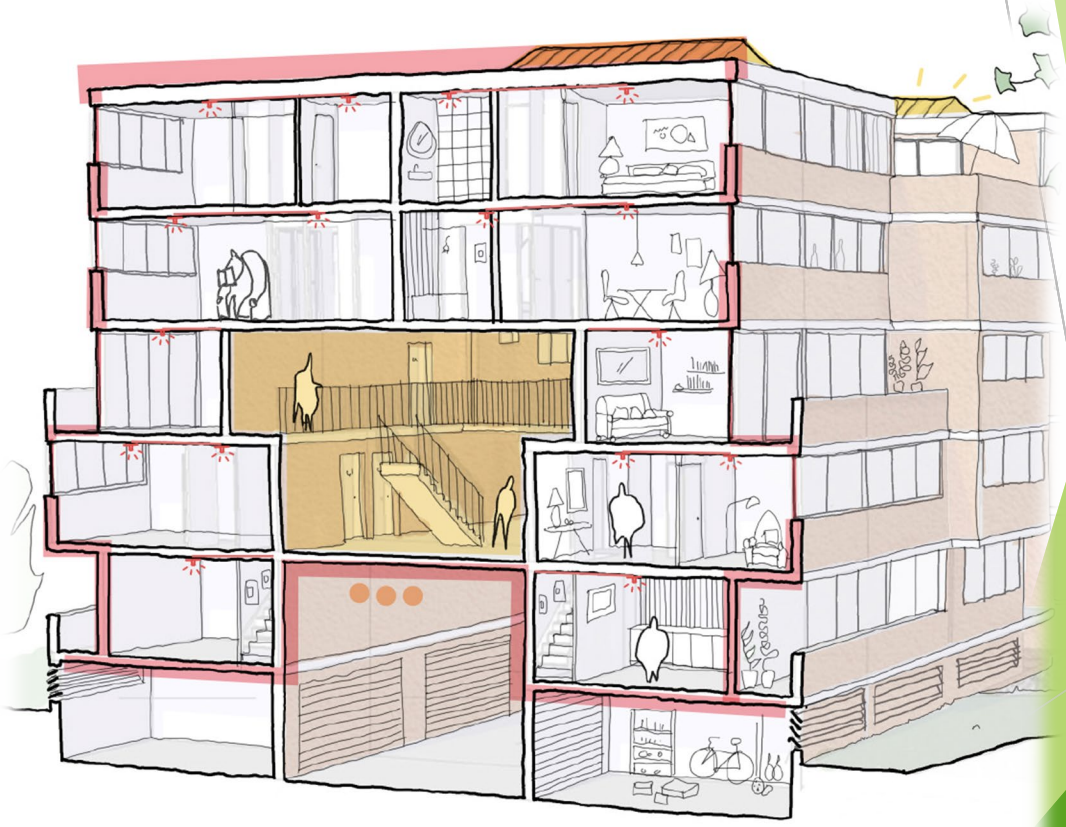
EPC Rating	Homes	%
A	0	0%
B	0	0%
C	11	30%
D	24	65%
E	2	5%
F	0	0%
G	0	0%
No EPC	90	-

*We are targeting an improvement from EPC Energy Efficiency Rating D to at least B for all homes across The Walkways. An EPC gives a property an energy efficiency rating from A (most efficient) to G (least efficient).

Thermography image from the walkways: Orange, Yellow and white areas indicate significant heat loss through building elements – mainly windows, balconies and side walls.

Working together to improve your homes

- Methods to make your homes more **comfortable** and more **energy efficient** throughout the year**.**
- Key areas of focus include improving the **thermal envelope**: external walls, windows, roof & floors and **maximising fire safety.**



Energy efficiency*
Updating/replacing outdated heating system and improving thermal fabric

Walkways
Replacing rooflights enhancing lighting and creating warm/temperate spaces

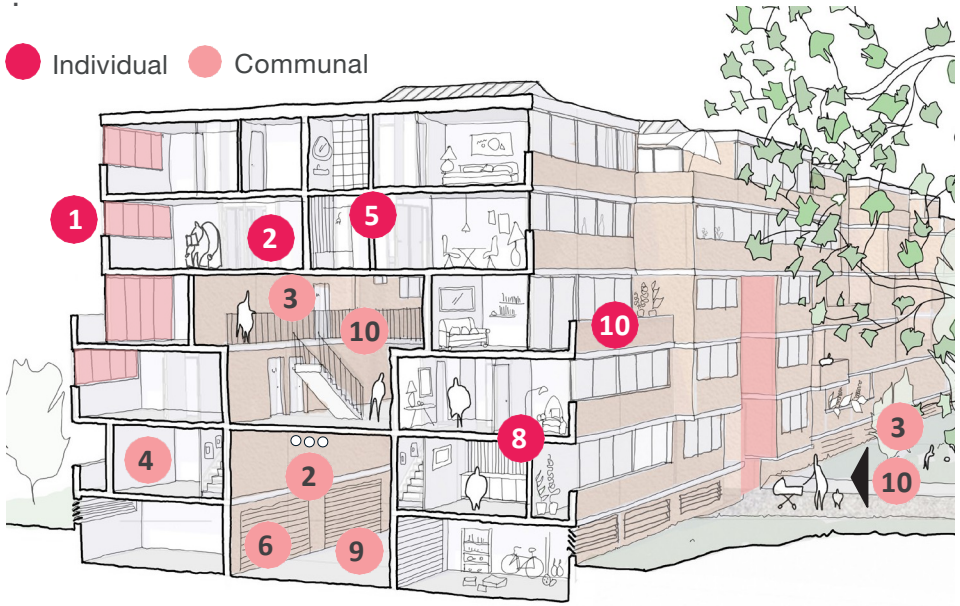
Fire safety
Sprinkler systems throughout all homes

*We are targeting an improvement from EPC Energy Efficiency Rating D to B for all homes across The Walkways. An EPC gives a property an energy efficiency rating from A (most efficient) to G (least efficient).

Your Top 10 Priorities:

You Said - what this means

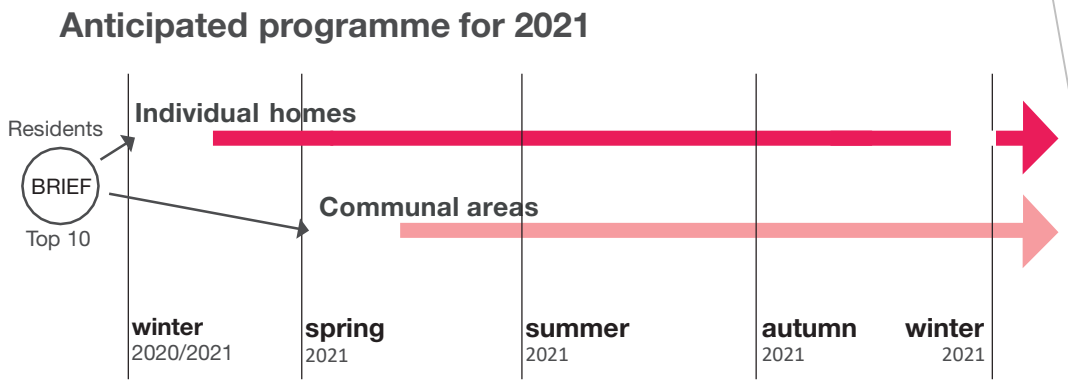
- Exploring how we can enhance your homes in line with your **Top 10 priorities**,
- Some improvements are focused **on your individual homes:**
- Some improvements relate to **communal areas** and shared spaces.



1. Windows*
2. Heating & hot water replacement
3. Communal electrics & Lighting
4. Door entry system
5. Bathrooms
6. Refuse storage
7. New communal entrance door & Lighting
8. Kitchens
9. Pest control
10. Communal/External decorations (floor, walks and bannisters/handrails)

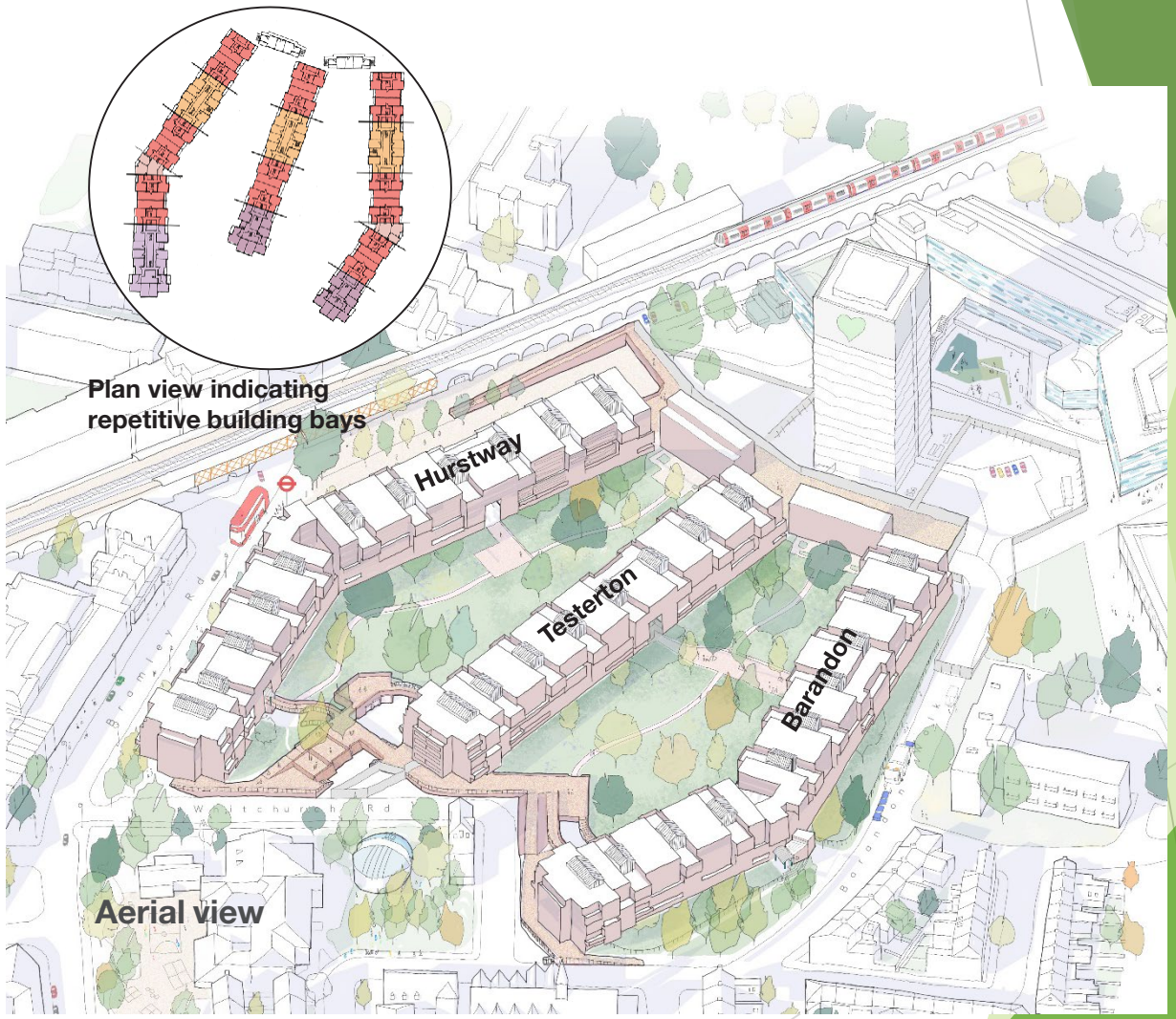
Co-designing with you

- We want to find the **best ways to communicate** the different options that we think are available to you to upgrade your homes
- We want residents to understand the different types of measures that are possible within your homes, **the benefits and level of disruption involved**
- We are looking forward to developing the **communal areas upgrade** work with you all as a collective



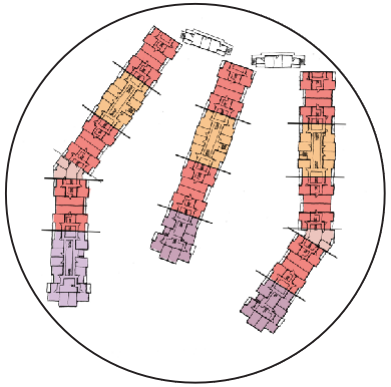
Understanding your buildings

- To understand your buildings and the materials, the team have been **analysing archive drawing** information and taking **measured site surveys**
- We plan to **open up** some areas of the building fabric in **empty flats** for further confirmation of materials
- We have been building **physical and digital models** of your buildings to better understand the spaces



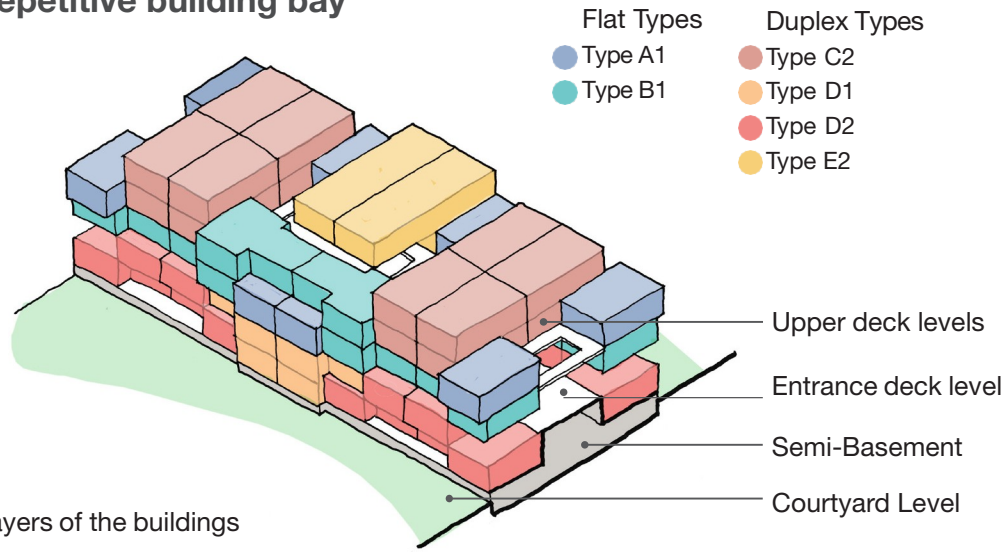
Understanding your buildings

- Your buildings are divided up into a **series of repetitive bays**.
- In total there are **15 different home types** which repeat across all 3 buildings
- Repetitive nature is a **big asset** as it allows us to look for **common material solutions** that can be used, helping to **bring costs down and deliver value for money**

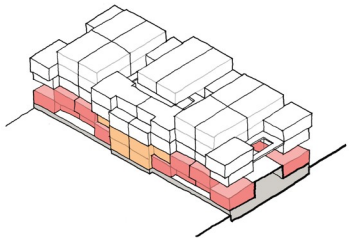


Plan view indicating repetitive building bays

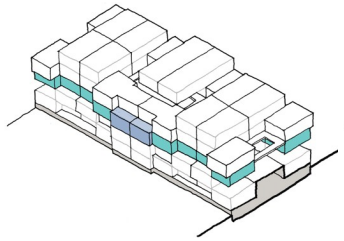
Repetitive building bay



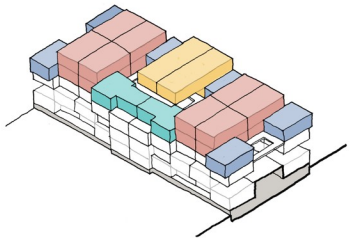
Layers of the buildings



Interlocking duplexes



A storey of flats



Upper flats and duplexes

Duplexes and Triplexes are multi storey flats spread over 2 or 3 levels

Understanding your buildings

You will all have a **unique experience of your buildings**, and to help us to understand your experience a little more clearly we have plotted out a **journey from the street to your front doors** and beyond.

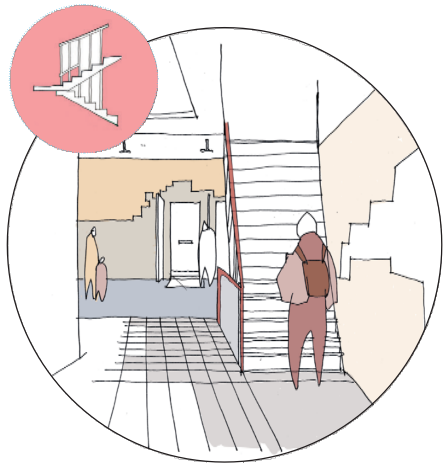
In your buildings we want to discuss and develop with you ideas about:

- Accessibility
- Connectivity
- Wayfinding
- Orientation
- Signage
- Acoustics/Noise
- Lighting

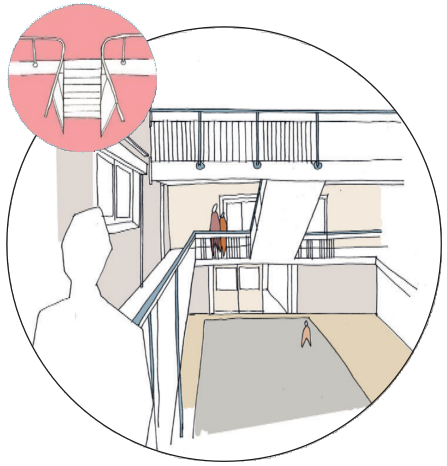
And any other aspects which affect your daily journey around the estate

Access into courtyards and buildings

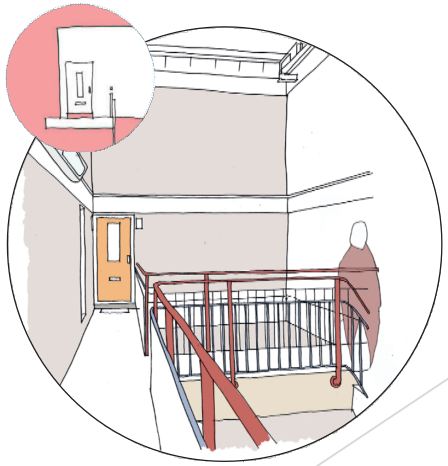
Communal entrances



Access via stairs & walkways

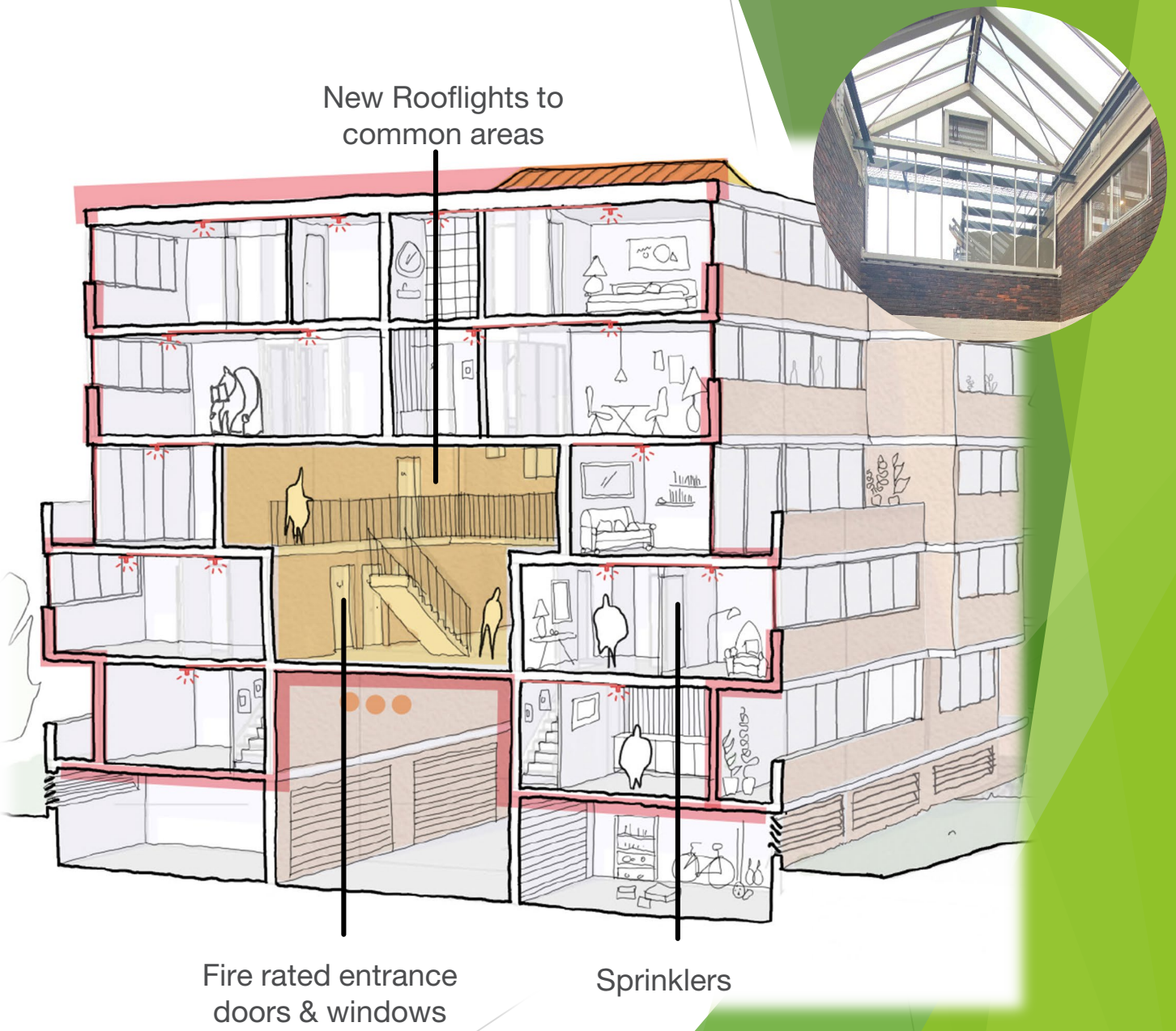


Stepped thresholds at entrances



Fire Safety

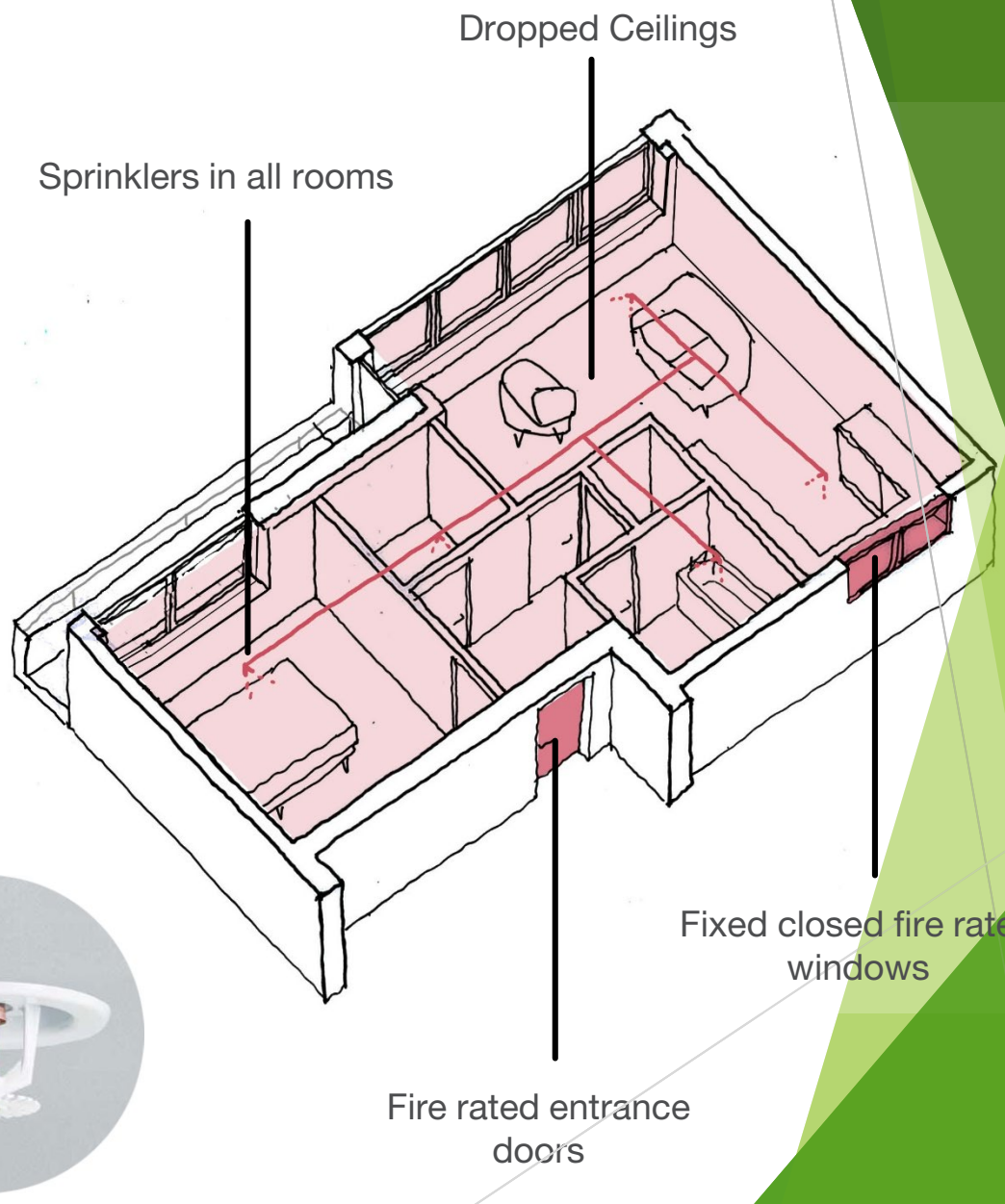
- **To improve the fire safety of your buildings we are:**
- **Replacing the rooflights** to allow smoke to escape more easily in the case of a fire
- **Installing sprinklers in all homes**
- Installing **smoke detectors** in all homes & common areas
- **Installing fireproof windows** between flats and the communal areas
- **Replacing the private entrance doors** (this has already started)
- Adding **new insulation that is only A1 or A2 rated** (the highest classifications)



Essential Works

- Essential works need to go ahead for **everyone's safety and well-being.** We will review these with you to help us limit the level of disturbance

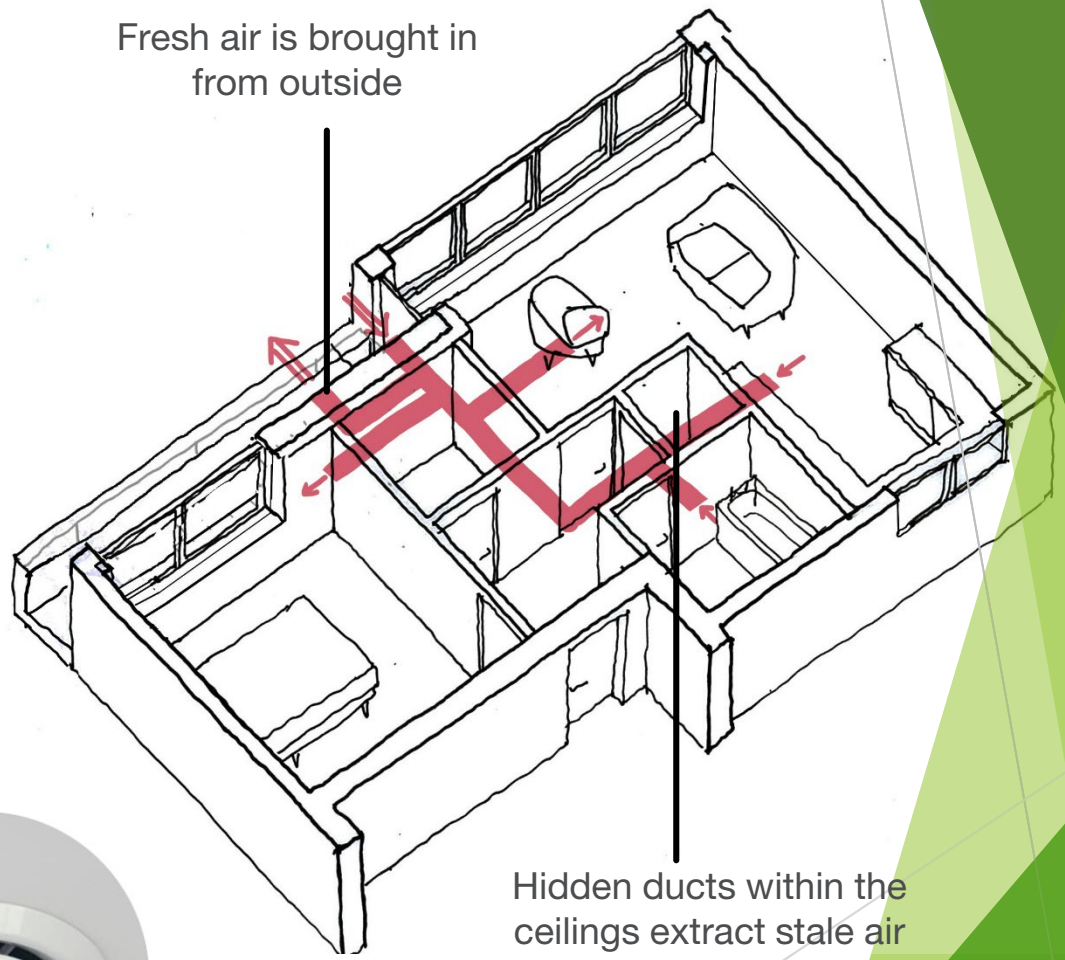
- These works include:
- **Sprinklers,** smoke detectors and new ceilings installed in all homes
- **Fireproof glazing** between the flats and the atrium
- **Completing the replacement of the front doors to improve their fire safety performance (this has already started)**



Essential Works

- As the windows to the communal walkways will be sealed for fire safety we will be installing a new ventilation system within each home

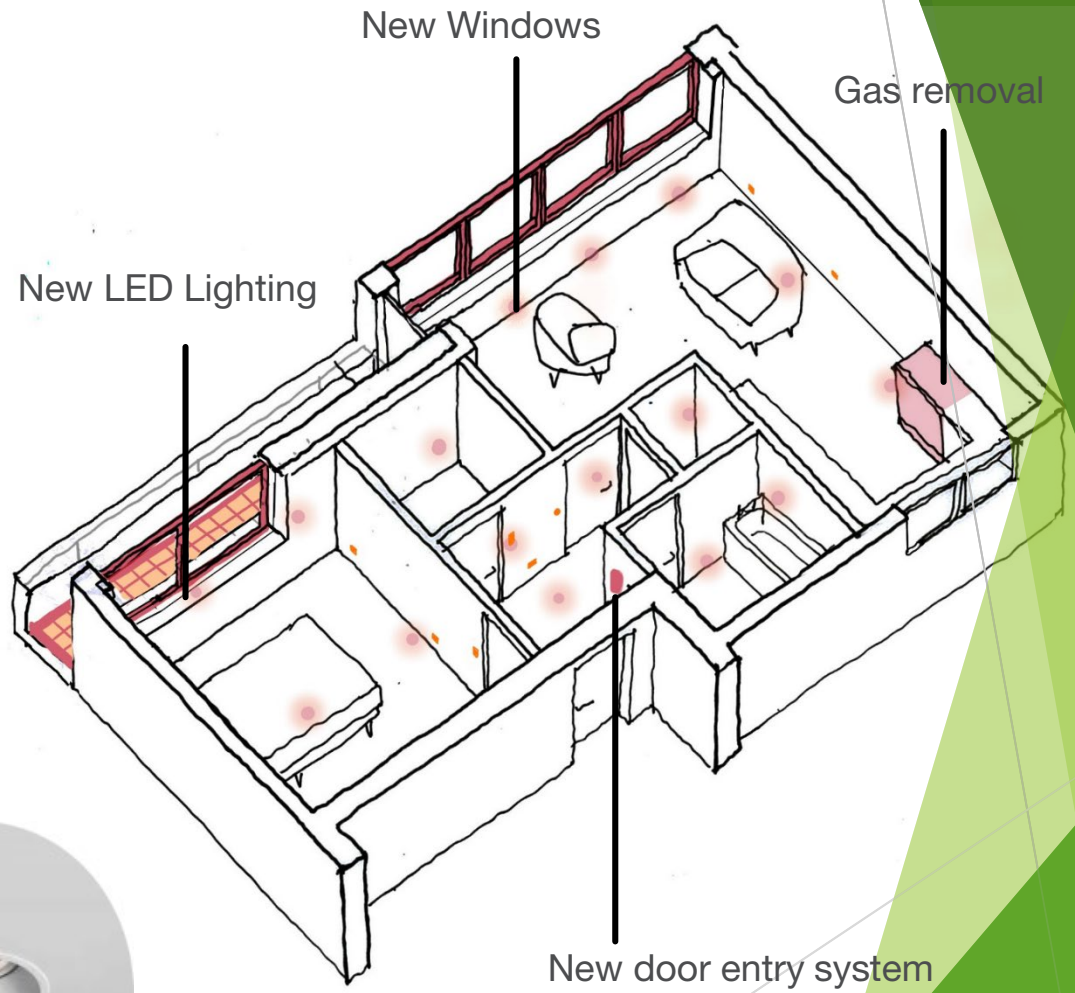
- This is called **MVHR** or Mechanical Ventilation with Heat Recovery System
- It **improve the air quality** of each home whilst reducing your fuel bills
- Fresh air is brought in from outside whilst the heat is recovered from the extracted stale air
- All kitchens and bathrooms will be ventilated to the outside, preventing mould growth



Essential Works

- Other essential works will include:

- **Windows and Balcony doors** to reduce heat loss
- **Low Energy lighting** to reduce your fuel bills
- **Door Entry Phone Systems** to improve access
- **Electrical works** to bring up the electrics to current standards
- The **removal of the gas supply** to improve fire safety

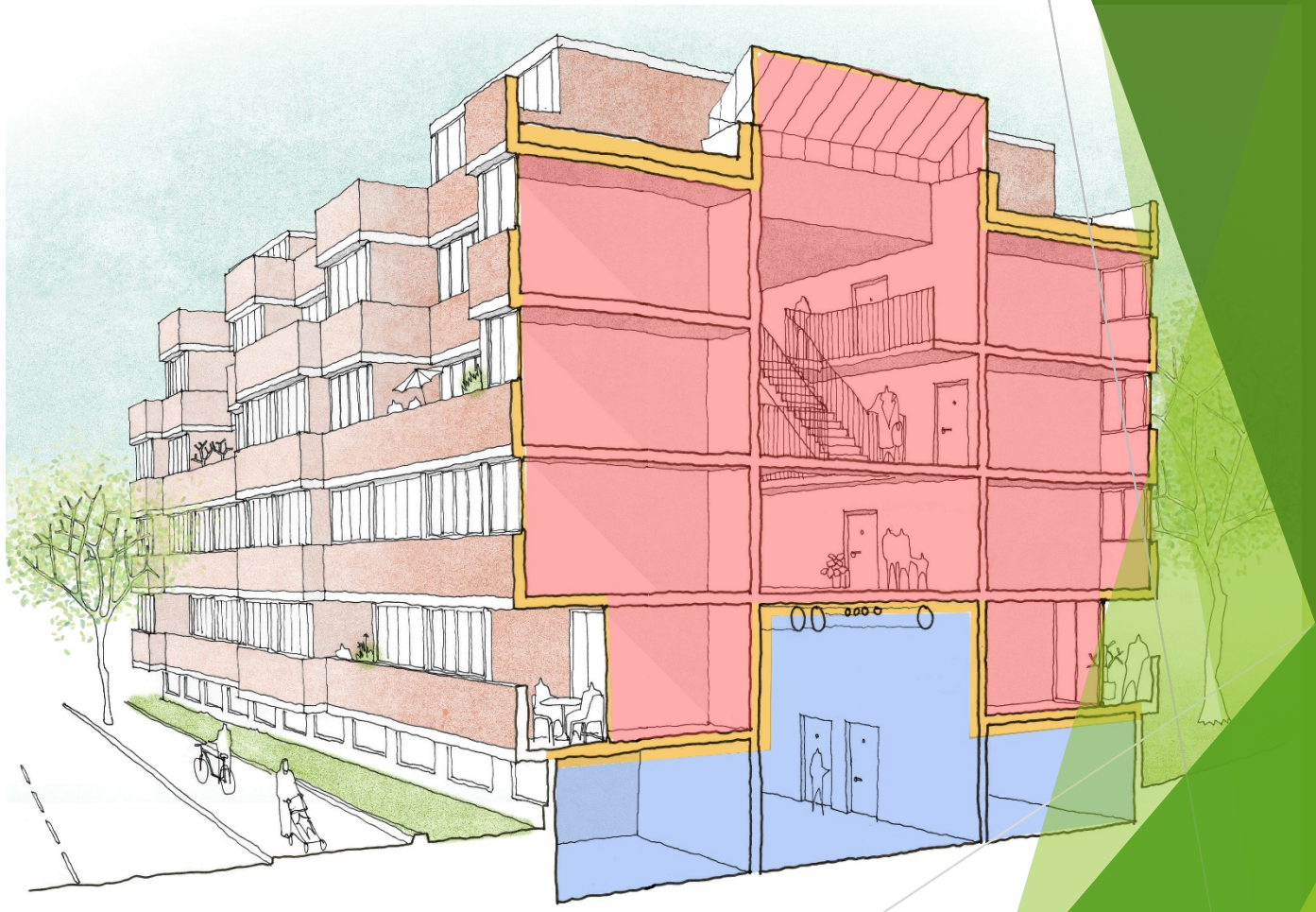


The Communal Areas

We have tested 3 ways of treating the communal space at the centre of each building using thermal modelling

Option 1: Heated Communal Space

- The central space would be actively heated
- Insulating the external walls only
- Replacing the rooflights to keep the space warm
- Our analysis suggests this offers the best balance of cost and effectiveness



The Communal Areas

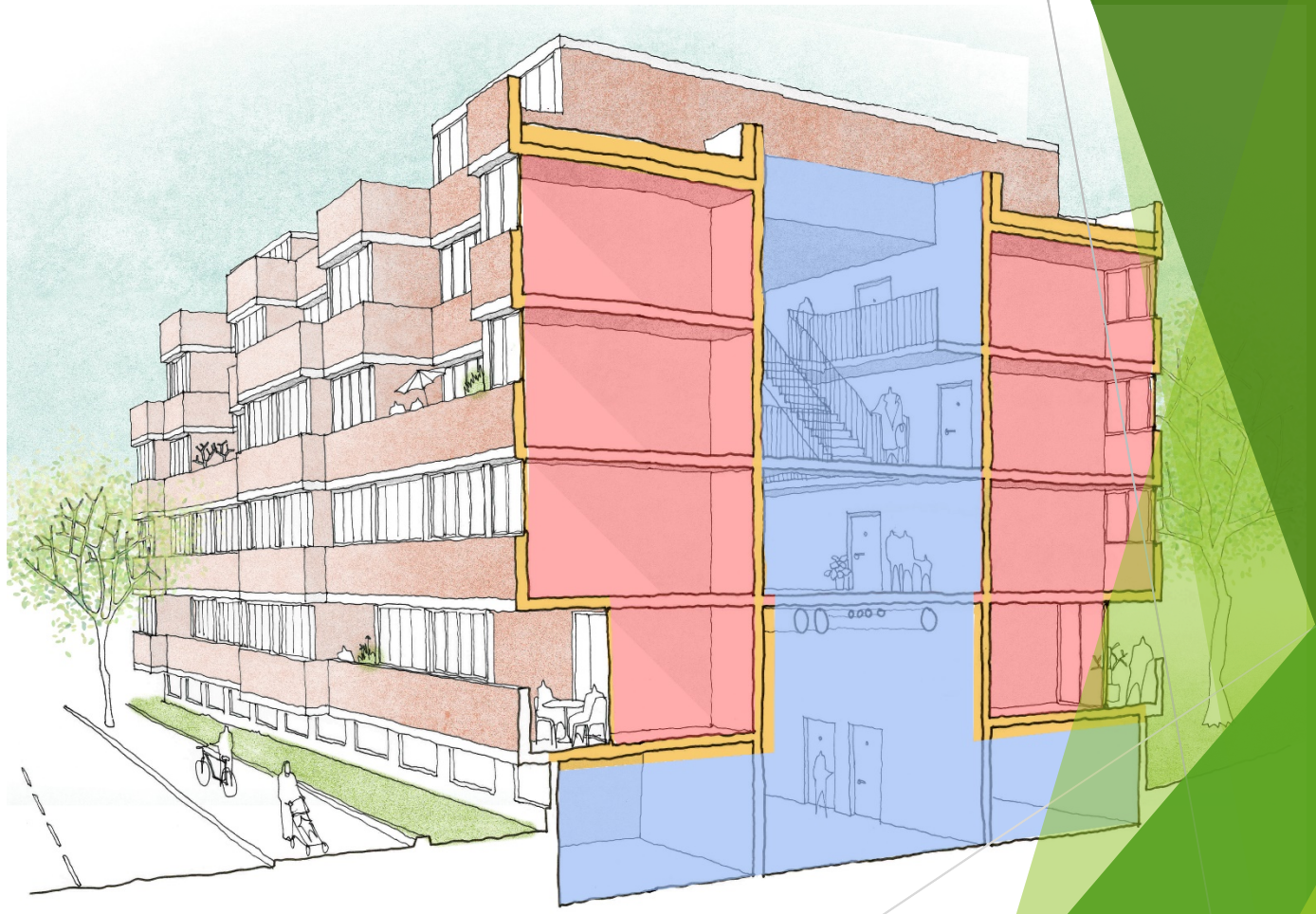
Option 2: Temperate or Warm Communal Space

- The central space would not be actively heated
- This would mean insulating the external & internal (communal) walls
- New rooflights would keep the space warm and dry
- Slightly more disruptive and expensive than option 1 as communal walls require some insulation

The Communal Areas

Option 3: Cold Communal Space

- The central space would be open to the elements
- This would require insulating both the external & internal (communal) walls
- Most disruptive and expensive as the communal areas would require a lot of work to widen the access decks



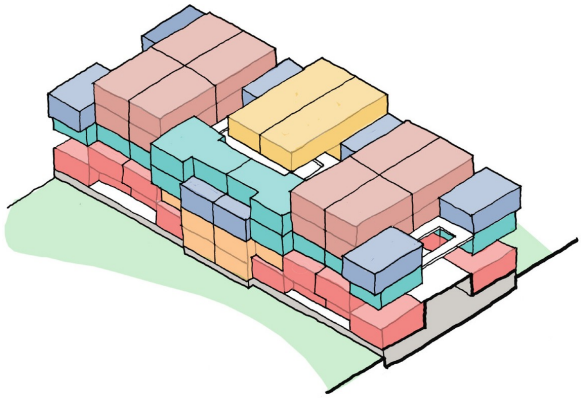
Thermal Fabric Improvements

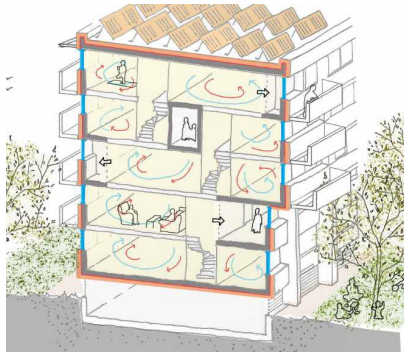
Finding the right solutions for your buildings

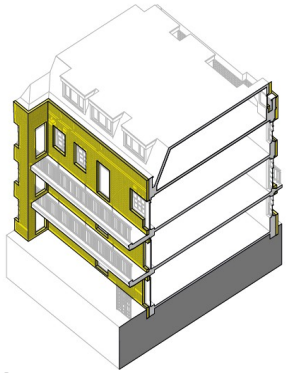
The Walkways

East Side

Talbot Grove & Morland House

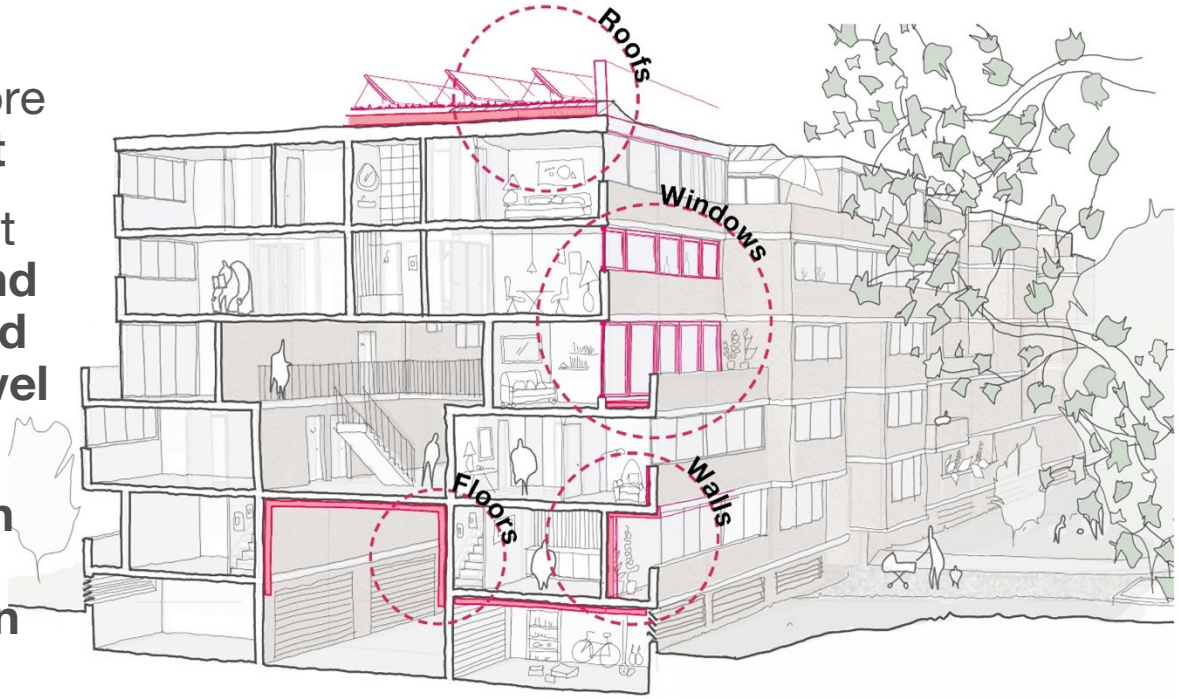






Thermal Fabric Improvements

- A focus on the different fabric measures to make your homes more **comfortable and energy efficient**
- **Balance** between thermal impact and **long-term energy, carbon and cost savings, the capital cost and duration of the works** and the **level of disruption** that they will cause
- **Improving your environments in the long term whilst limiting disruption and upheaval to you in the short term is paramount.**



Striking the right balance:

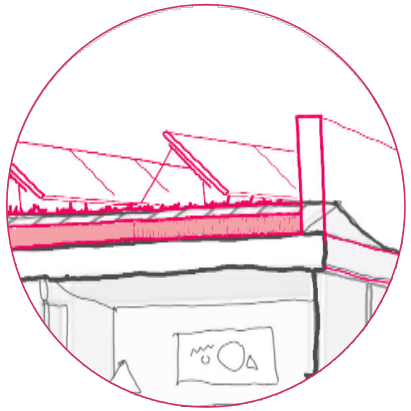
Long term: Improvements to your home environments and your physical comfort + reduction in energy bills + reduction in carbon footprint of buildings + improved lifespan of your buildings

VS.

Short term: Capital cost of measures + necessary duration of works and placement of temporary works such as scaffolding + levels of disruption and potential need for temporary rehousing

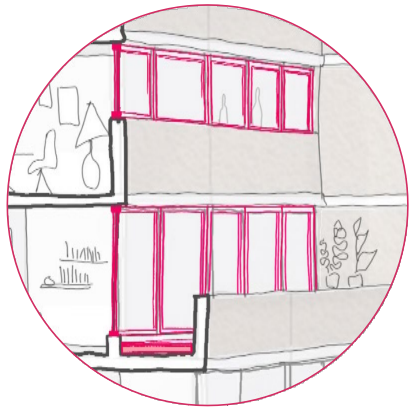
Thermal Fabric Improvements

Roofs



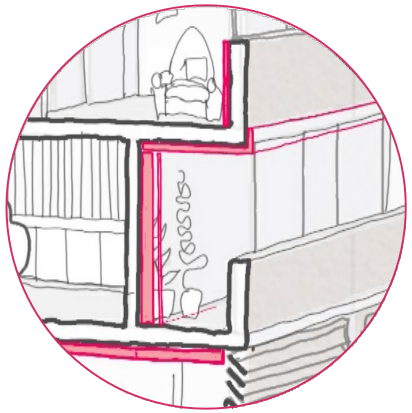
- Insulating the roofs will **reduce heat loss and heat gain.** Other opportunities to improve biodiversity and introduce green energy such as PV panels, which help reduce energy bills

Windows



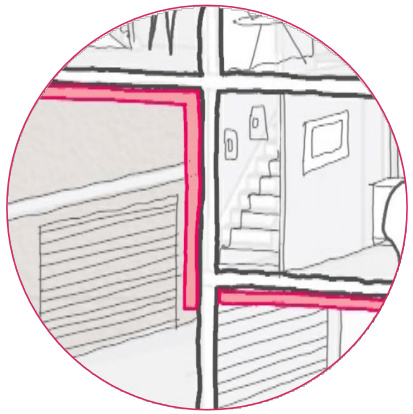
- Windows and external doors changed to **airtight, triple glazed frames**
- Upgrading **balconies** with new **waterproofing**, insulation and rainwater goods

Walls



- Wall insulation to improve thermal performance, by either **insulating from within** or **wrapping the outside face** of the building in insulation

Floors



- Floors fitted with insulation on the **underside of all exposed slabs and walls** to reduce heat transfer to unheated garages below

All new insulation options that are bring explored currently are A1/A2 rated, which is the lowest-risk material rating under the fire regulations. Further explanation of these ratings will be provided at every stage in the decision process with residents

Thermal Fabric Improvements

Thermal Fabric Improvements

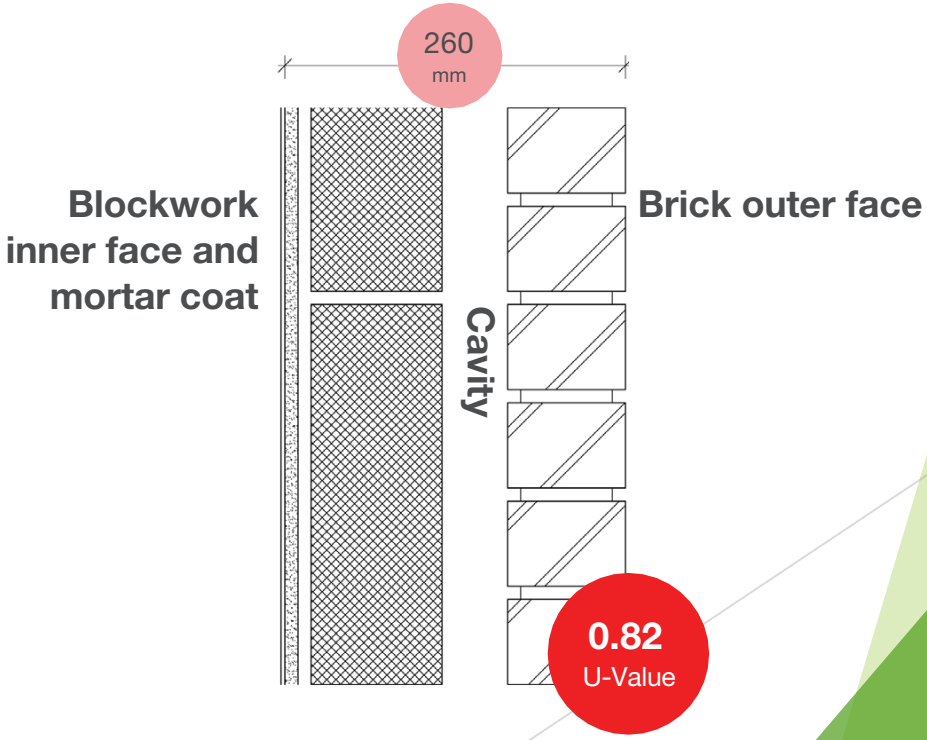
Thermal Fabric Improvements

How do we assess efficiency of options?

"U-value" or thermal transmittance is the rate of transfer of heat through a structure divided by the difference in temperature across that structure.
The better-insulated a structure is, the **lower the U-value** will be, meaning it is **better** at keeping the building **warmer in winter and cooler in summer.**

High U-Value:
Lots of heat escaping

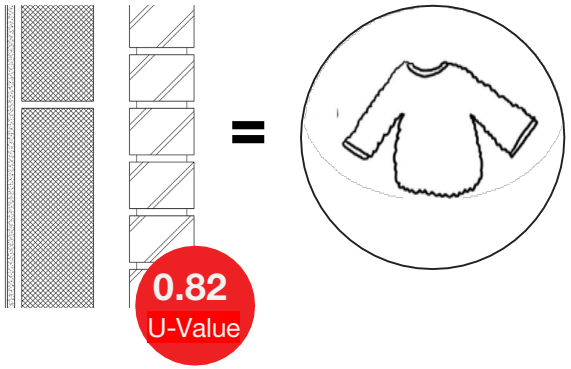
Low U-Value:
Very little heat escaping

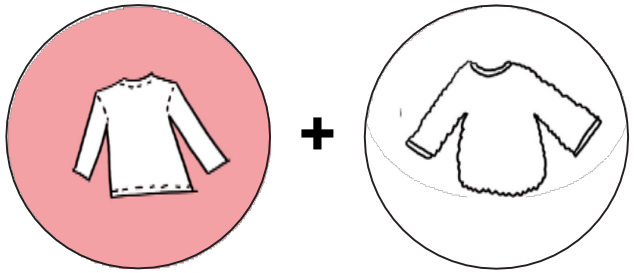


Thermal Fabric Improvements

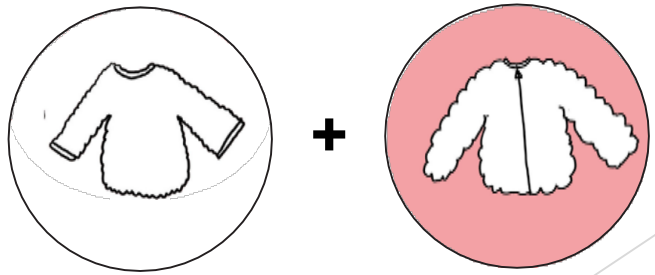
Imagine that different ways of insulating your walls are very similar to different layers of clothing

Suppose the walls of your buildings behave like a jumper:





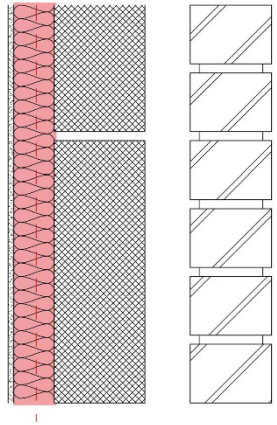
Thermal vest under your jumper

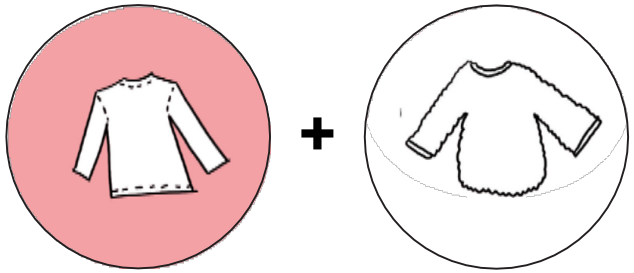


Coat over your jumper

Thermal Fabric Improvements

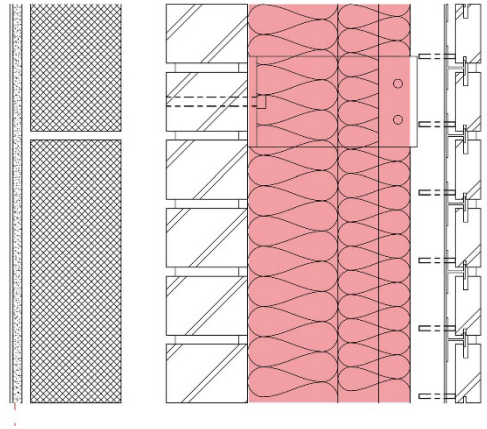
IWI: Internal Wall Insulation

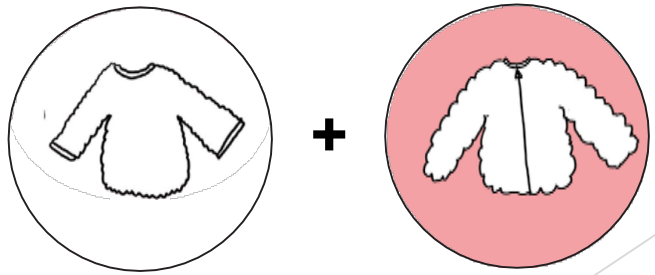




Thermal vest under your jumper

EWI: External Wall Insulation



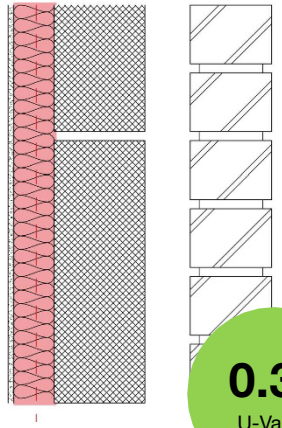


Coat over your jumper

Thermal Fabric Improvements

IWI: Internal Wall Insulation

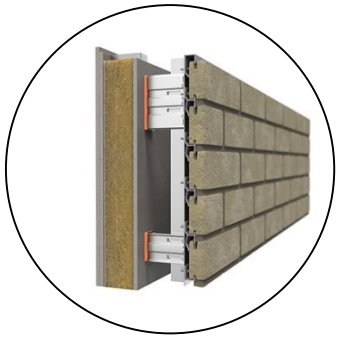
High-performance, A2 rated silica based insulation system Slentex



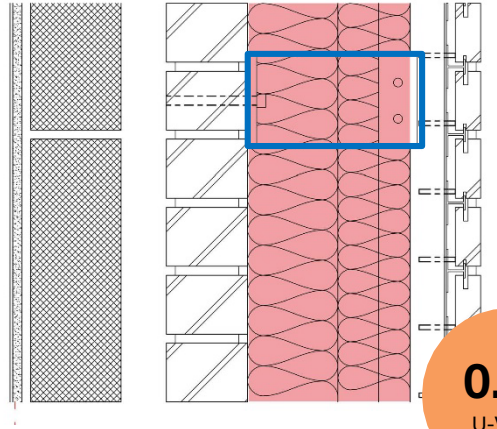
0.31
U-Value

+62%
Improvement

EWI: External Wall Insulation

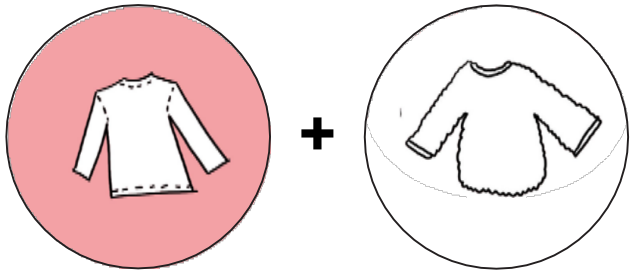


Rainscreen Brick slip system, A2 rated system with A1 rated mineral wool

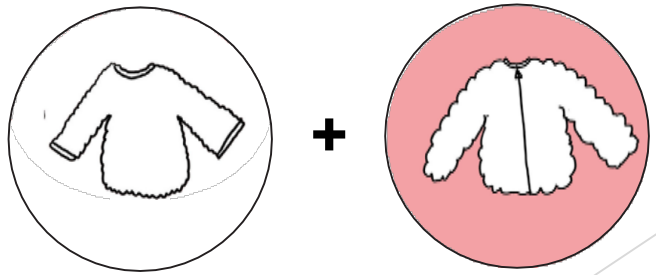


0.43
U-Value

+47%
Improvement



Thermal vest under your jumper

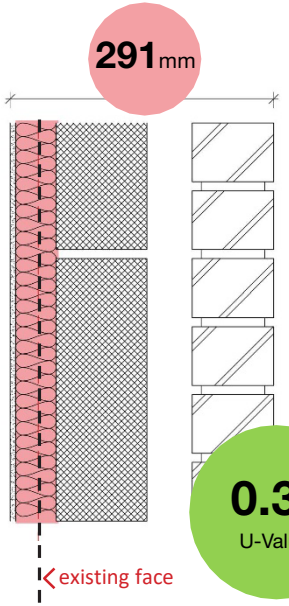


Coat over your jumper

Thermal Fabric Improvements

IWI

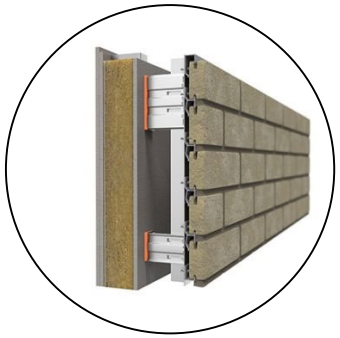
High-performance, A2 rated silica based insulation Slentex



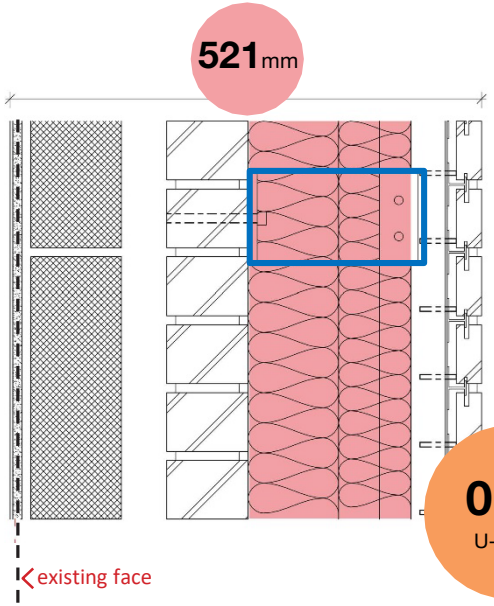
0.31 U-Value

+62% Improvement

EWI



Rainscreen Brick slip system, A2 rated with non combustible mineral wool



0.43 U-Value

+47% Improvement

31mm thicker int. wall

Very small impact on internal areas: **0.5 - 1%** loss of overall flat area

258mm thicker ext. wall

Substantial impact on Balcony area: loss of **10% - 25%** of total balcony

Plus reduction in window areas and substantial changes to balcony doors may be necessary

KEY

Works will require access into your home (NB 100% of homes will require access to install essential works)

Works will take a long time to install e.g. more than a week per household

Works are likely require the use of scaffold on external facades

Pros and Cons

IWI: Internal Wall Insulation

- ✓ Fast installation: up to a week
- ✓ Doesn't require scaffolding
- ✓ Doesn't impact on window size, balcony area or balcony access

- × Requires 100% access to deliver full benefit
- × Requires additional intrusive work for the leaseholders and those who have already had refurbishment
- × Small impact on floor area (0.5 -1% loss of floor area)

EWI: External Wall Insulation

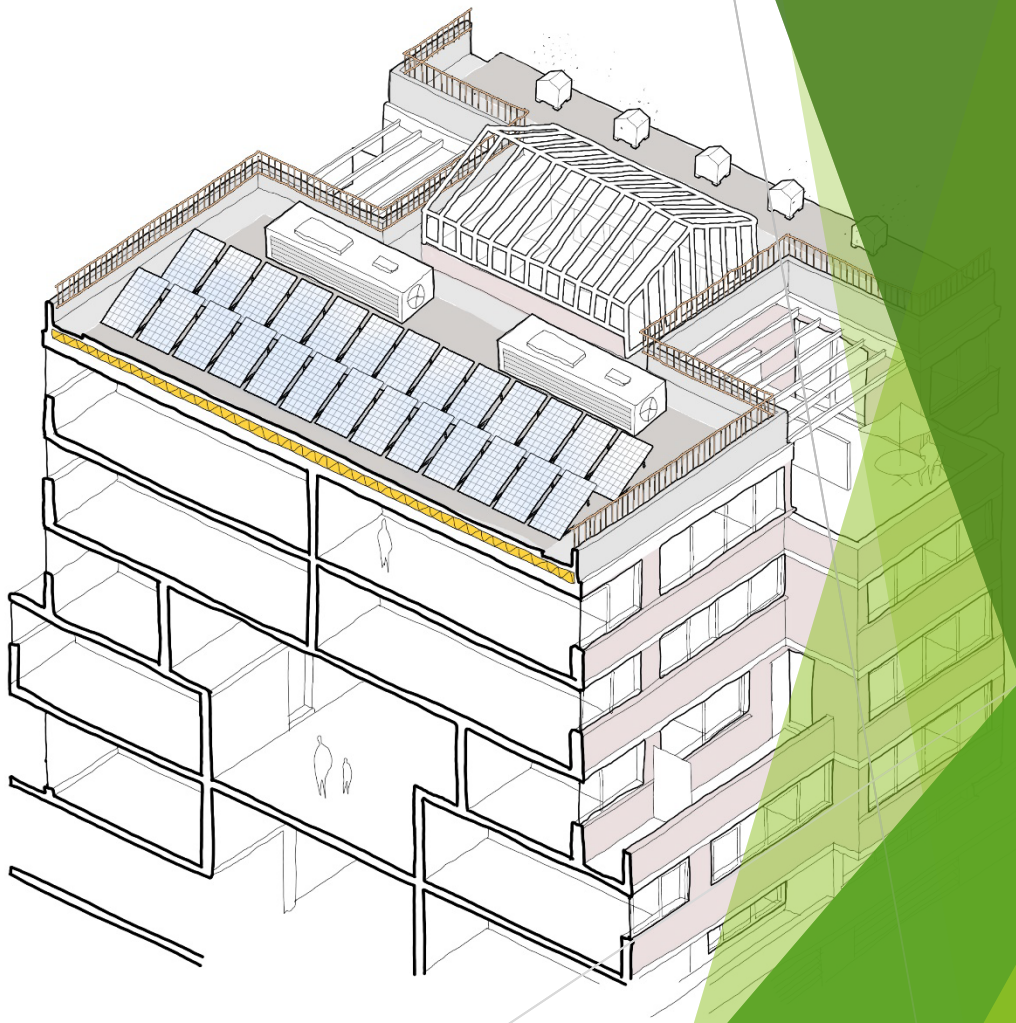
- ✓ Does not require direct access into homes
- ✓ Does not reduce internal floor area of homes

- × Requires scaffolding
- × Reduces balcony area and window sizes in some areas
- × The length of time and method of installation can be disruptive
- × Requires careful coordination with existing externally mounted services and building shape

Thermal Fabric Improvements

Roof measures

- **Green roofs**: We think this may be unlikely due to the loading capacity of your roof decks
- **Solar panels**: We do however think that with a new parapet upstand we can support a network of rails to support PV panels across your roof contributing to energy demand in your buildings and reducing energy bills
- **Atria roof lights**: Replace with double/triple glazed, thermally enhanced and airtight system solutions to improve the thermal capacity of the atrium spaces
- Heating demand will be reduced by roughly 1/4 with new skylights and by a 1/3 with all the above measures incorporated

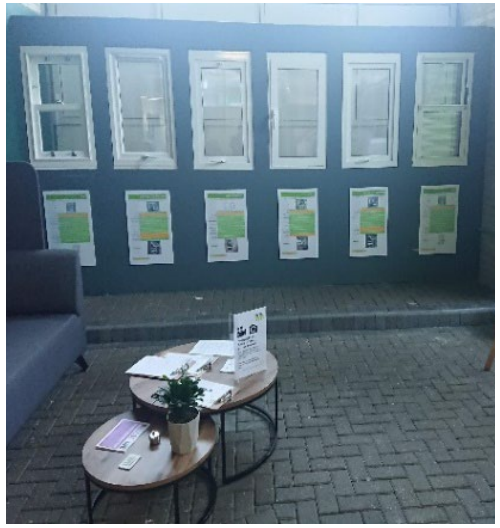


Windows options

- Windows offer the biggest opportunity to improve the thermal performance of your homes
- When reviewing the different options we need to consider:
- **Thermal performance**: what U-values do the different systems deliver
- **Look of the windows**: frame size and depth, materials and the visual impact on your buildings
- **Feel and handling of the windows**: easy operation, cleaning methods
- **Safety and security**

We know you have already been consulted upon window options previously

- **Barandon Walk Pilot Open House** & Baseline window installation
- All of our progress to date has been using this information as a starting point



Baseline window installation

Barandon Walk Window Pilot

Windows Pilot 2019 - recap

BARANDON WALK DROP-IN

We launched the pilot at Barandon Walk and gathered insight into what the residents considered most important when thinking about windows

Colour preferences

Provided Colour Options

We provided a colour board for residents to choose which grey they preferred for the aluminium frames that were displayed in the flat

The following were fed back as important to residents:

1. **Ease of cleaning**
2. **Safety and security**
3. Keep the **heat in** in winter, and **prevent overheating** in summer

Windows

Types of opening window

▶Outward opening side hung:

- **Very common in the UK.**
- **Very difficult/impossible to safely clean from within the home.**

▶Top Hung Reversible:

- **Fully reversible windows allow the pane of glass to be lifted and flipped to allow ease of cleaning.**
- **Typically outward opening so does not affect the curtain and blind line around windows.**

▶Inward opening Tilt and Turn

- **Opened from the top and secured to allow additional ventilation, they can also be opened inwards fully if required.**
- **Tilt and turn windows are designed to allow easy operation and easy cleaning.**

Windows

3 Manufacturers & systems

Reynaers Masterline 8

- 1.08 U-value
- 104mm frame
- Aluminium frame
- ££££

Velfac V200 Energy

- 0.64 U-value
- 53mm frame
- Composite: Aluminium external frame and timber internal frame
- ££

Ideal Combi Futura + I

- 0.82 U-value
- 54mm frame
- Aluminium frame
- £££

Windows

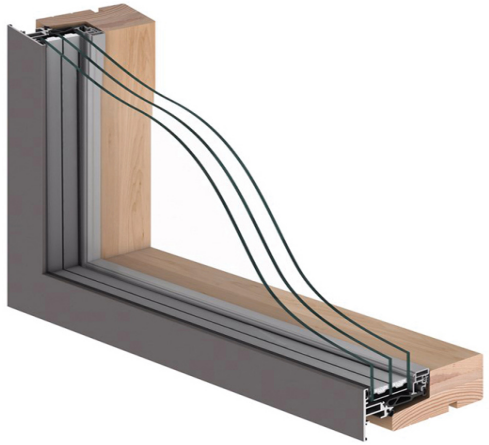
3 Manufacturers

Reynaers Masterline 8

▶Internal and external finishes:

- **Polyester powder coated: painted**
- **Anodized finish: metal finish**

Velfac V200 Energy



▶Internal finishes:

- **Painted timber**
- **Treated timber**

▶External finishes:

- **Polyester powder coated: painted**
- **Anodized finish: metal finish**

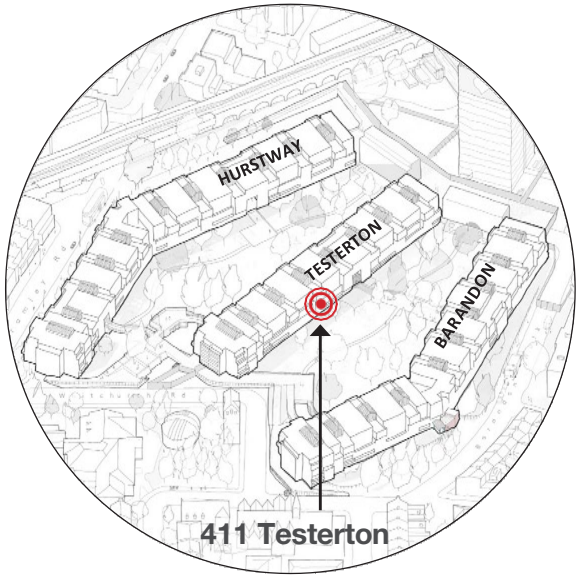
Ideal Combi Futura + I

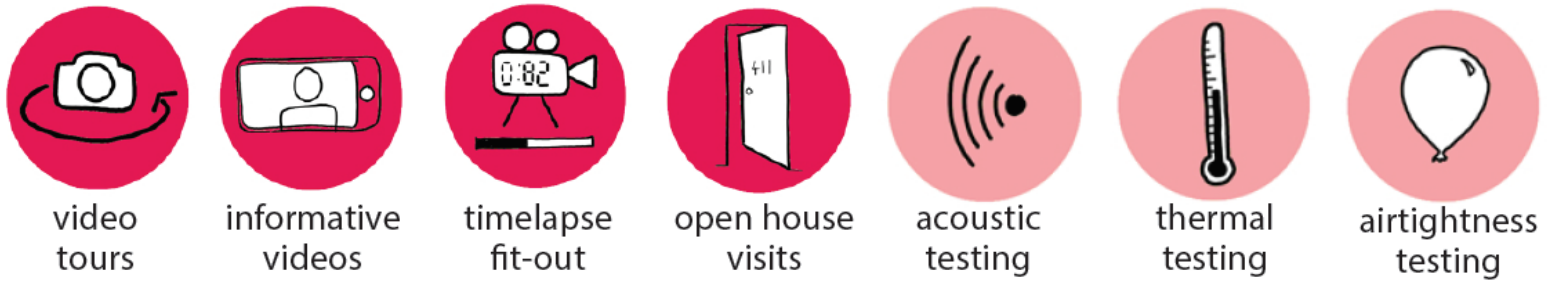
▶Internal and external finishes:

- **Polyester powder coated: painted**
- **Anodized finish: metal finish**

The Pilot: 411 Testerton

- Empty flat located at 411 Testeron identified as a possible location to trial systems and materials we are testing
- Approach will be similar to open house fit-out of 317 Barandon, with a focus on thermal fabric improvements and developing clear choice of enhancement measures with you
- Flat will be open for you to visit and to aid discussion for fit-out of your home, to include exhibition information, material samples and models
- We will document the fit-out in a range of ways to communicate this with you





Minimising disruption

- The team want to **limit disturbance** to residents whilst delivering the essential and optional works to improve the Walkways
- Health and safety is critical to assessment of these options whilst residents remain in-situ
- We will be using the **411 Testerton Pilot** to **help identify the nature of disruption for different packages** and from there on we can plot out a process.
- A **range of respite options** – temporary and permanent – will be on offer throughout the process.

Next steps – Future Surveys

- To fully document the current thermal properties of your buildings we will need to run some thermal tests.
- Many of these are already underway and will be conducted in the common areas and in the 411 Testerton Flat, these are as follows:
- Low pressure Pulse **air permeability testing** in flats, to understand where drafts occur in your properties
- **Temperature sensors** located in the Walkways
- **In-situ U-values** in flats. These help to confirm our technical assessment of the thermal fabric
- **Thermographic testing on external facades**. Through infrared thermal photography this helps us to assess the thermal behaviour of your buildings and identify thermal ‘weak spots’ in the envelope
- Smart Heat Transfer Co-efficient, this is a test to evaluate how much energy it takes to heat your homes
- We will also need to undertake some intrusive survey work in the 411 Testerton Flat and there may be very short periods of noise in this part of the building during permitted hours in the coming weeks.

Call for volunteers

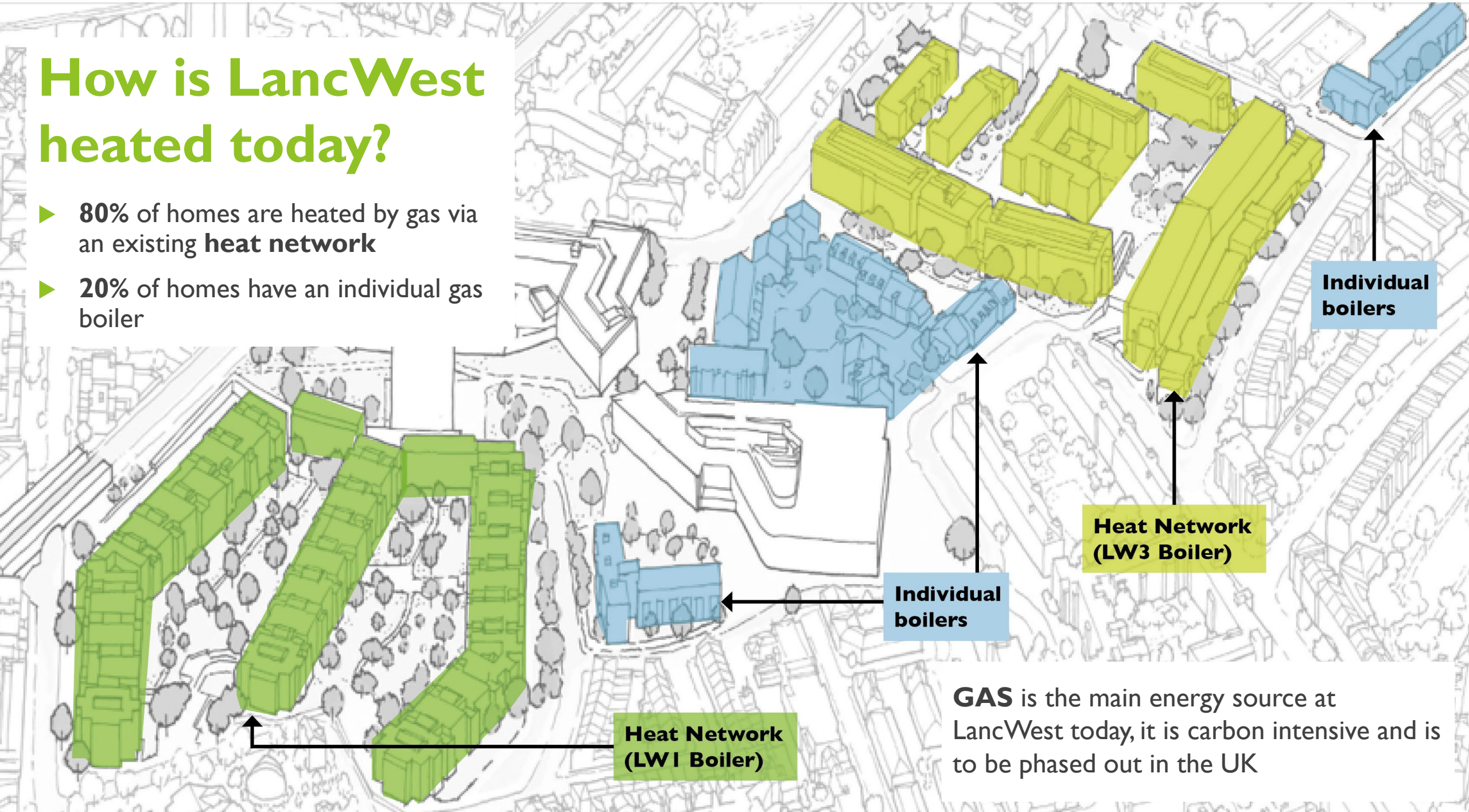
- Build Test Solutions (BTS), who are monitoring thermal and energy data across the whole Lancaster West Estate, will need to install small temperature and humidity sensors in occupied flats
- BTS are already installing these in Treadgold House and there is a video in Instagram explaining the process
- The installation should take between 5-10 mins
- The temperature/humidity sensors will need to be in your flat for approximately 3 weeks
- BTS will carry out further surveys in empty flats: thermal conductivity of walls, air permeability tests, etc

Your future heating and hot water solution

Janet Hall
Heat Network Engagement Manager

How is LancWest heated today?

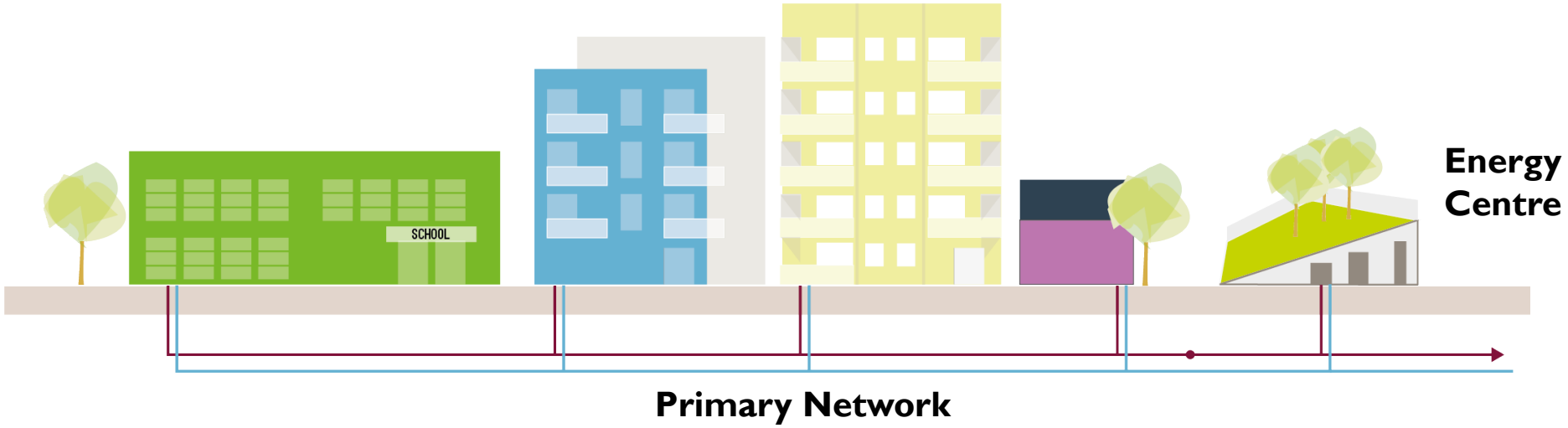
- **80%** of homes are heated by gas via an existing **heat network**
- **20%** of homes have an individual gas boiler



GAS is the main energy source at LancWest today, it is carbon intensive and is to be phased out in the UK

What is a heat network?

It is a system that supplies heat to several buildings via pipes connected to a local energy source



Renewal and replacement is required of the two heat networks, which today supply 80% of LancWest heating

Future Heating Co-Design

Feb / March 2021

- Technical teams are doing surveys to find out *what is possible*. Here we are testing if we can take heat from sewage!

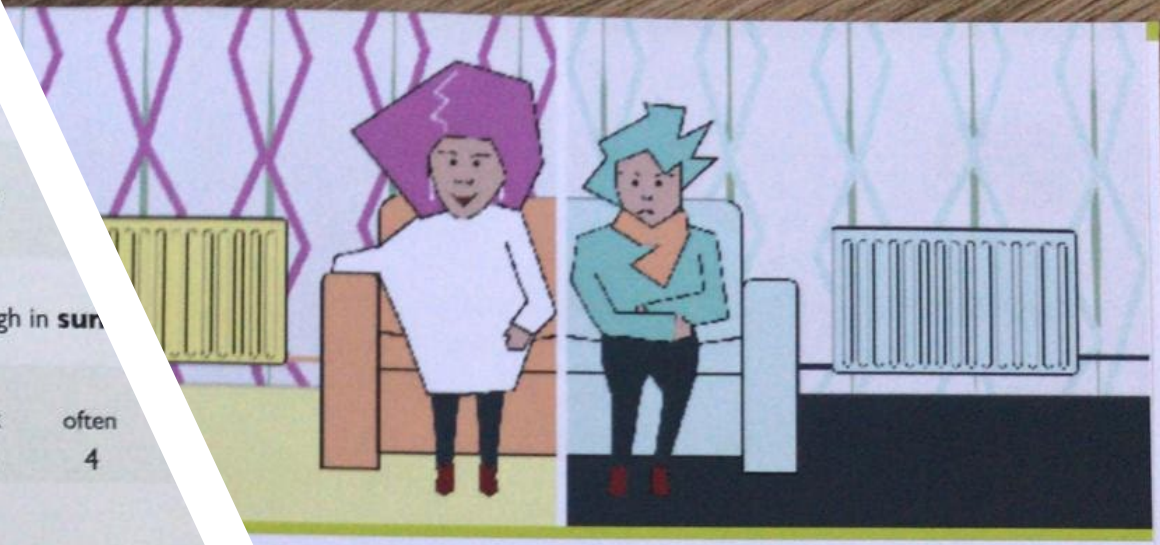
March / April 2021

- We will share the heating options for resident review and co-design

Share your thoughts on heating today…

A resident survey is live, available online or request a paper copy!

- **Janet.hall@rbkc.gov.uk**



ting and Hot Water Survey

West Top Ten Priorities, showed that heating high on the list of things to fix for many ke to hear more about what you think of what you would like to see in the future. ep to co-designing new and improved e will host a number of Co-Design rch 2021.

complete the survey online, or Sunday 14 March 2021. Survey

Heating Cost + Comfort

3. Is your home warm eno
circle your answer

never	not often	ok
1	2	3

4. Is your home cool enough in **sur**
circle your answer

never	not often	ok	often
1	2	3	4

5. On a normal day, how many baths and sho
does your household take?

Baths (no.) Showers (no.)

6. Do you have hot water available when you need it?

never	some-times	ok	often	always
1	2	3	4	5

7. Do you have further comments about anyhing above?

heat your home to the YES NO
u would like?

Next Steps…

Continuing the conversation

Today and in the coming days and weeks we want to hear about thoughts, ideas and concerns you have about the information we have presented this evening in relation to both your individual homes and your communal shared spaces.

In particular, we want to hear more about your communal spaces. Are there any aspects of these unique spaces which you particularly like or dislike?

We will also undertake a series of follow-up surveys, giving every household an opportunity to engage and feedback their ideas, preferences, and concerns.

The pilot will give us a real opportunity to assess the impact of the different measures and the levels of disruption that would be required for each.

Next Steps…

We will be sending out follow-up material that will include the details shown on the slides to all Walkway residents. The slides and a recording of the meeting will also be going on our website www.WeAreW11.org and app. We will also be undertaking follow-up surveys to capture preferences, question and concerns.

We will also be contacting all Walkway residents with a booklet giving you further information about the planned **pilot in 411 Testerton.**

We are also hoping to hold a series of **lighting workshops** for the Walkway.

Resident Enewsletter

SCAN ME

Please specify which block you live in when subscribing, to allow us to send out block newsletters in the future.

LANCASTER WEST NEIGHBOURHOOD TEAM

W11

Thanks for joining us!

Any final questions, thoughts or ideas?

Your feedback is important

If you'd like to follow anything up, contact:

Telephone: **0800 389 2005**
Email: lancasterwestoffice@rbkc.gov.uk