

# Crescent House Windows Refurbishment Project

## September 2024



### Scope of work

This is the work that will be undertaken within the Windows Refurbishment contract:

Within your home:

window frame repairs and refurbishment; installation of vacuum glazing; installation of mechanical ventilation system; where applicable central heating system changed from gas to electric

Externally:

new roof covering and insulation; soffit insulation; tiles repairs to columns

New flashings will also be installed to the metal clad roofs of the oriel windows to throw water away from the timber framework.

Refurbished window frames, vacuum glazing and the addition of insulation (bookshelves, spandrels, roof and soffits) will significantly reduce draughts, heat loss and noise. Relevant tests were conducted before the work began, after it was completed and also as part of lived in testing earlier this year.

Results of the before and after work tests are available on the project website **goldenlane.site** (go to Project Documents and click on the architect boards for 'Crescent House Pilot Project'). A summary of the results from all of the testing will follow.

The improved airtightness means there is a legal requirement to provide adequate ventilation to avoid condensation creating mould and damp issues, which is a particular problem for the first and second floor interior flats. Investigation work is ongoing to see what we can be done about potential over-heating in the summer.

### Temporary Relocation during the Works

Residents will not be able to remain in their homes whilst work on their flat is being undertaken. It is not possible to partition off a section of the flat as per the work on Great Arthur House – internal access is needed. The work is also

very dusty and once protective coverings are in place it is not practical to remove them until the work is complete.

Residents will be provided with temporary accommodation, either in Crescent House or elsewhere on the estate. A specific Decanting Policy for the Project has been drafted and will be presented to Committee for approval in either October or November. The Project Team is acutely aware that the project is reliant on buy-in and co-operation from residents who face significant disruption. Their recommendation is that any decanting and associated costs are not recovered from Leaseholders, but ultimately the decision will be made by Members. The Project Team will keep the Resident Liaison Group updated.

Before any work begins on your home the Project Team and Contractor will meet with you to agree a strategy for removing and then returning your possessions to and from safe temporary storage. It will also be agreed how your property and any possessions that will remain in your home during the works are best protected.

At this pre-commencement meeting the likely extent of the works required in your flat will be established and agreed, and this will inform a likely programme for the works including predicted dates for moving out and returning to your refurbished home. Approx 4-5 weeks is anticipated to complete the works on most flats – some may take less time, others more depending on the condition and number of windows and if there are any existing damp or mould issues that need to be resolved. This timescale will be confirmed once a Contractor for the works has been appointed.

## **Ventilation**

A demand control ventilation system has been installed in the pilot flat. This is made up of an electric extraction fan in the bathroom (which runs on the landlord's supply) and a trickle vent installed in the sitting room window frame. A humidity sensitive sensor within the trickle vent reacts to the level of moisture in the air, opening when it is high and so increasing the replacement of air that the extraction fan is removing. This creates a flow of fresh air across the flat. Once the humidity levels have returned to normal the trickle vent will close avoiding unnecessary heat loss.

The lived in testing results showed that the ventilation system performed well and quickly cleared condensation post showering and cooking. There was also very little condensation on the windows in the morning after a cold night.

All flats within Crescent House will have a demand control ventilation system installed although minor alterations will be made to the system depending on the flat type. Leaseholders will be consulted about their ventilation system as part of the pre-commencement flat survey / meeting.

## **Over- heating**

If Crescent House was being built now it would have solar shading (eg window shutters) or much less glass. The installation of vacuum glazing will help reduce overheating – it is not just better at retaining heat in winter but also keeping out heat in summer.

An alternative to replacing the louvre windows with fixed glazing (as in the pilot flat) is being explored for third floor flats.

Computer modelling of the pilot flat and a corridor flat on both the first and second floors is also being undertaken. The results will help inform if any other improvements can be made and whether there is a need for a summer equivalent of the Winter measures campaign (providing blinds for example).

## **Changing from Gas to Electric Heating**

Vacuum glazing cannot be cut into, it comes sized to order with edges 'sealed'. This means that boiler flues can no longer exit through the windows which is the current set up for many of the flats in Crescent House particularly those on the first and second floor corridor.

For City of London tenants where there is no alternative routing for the boiler flue, or flues are in locations that no longer comply with the Building Regulations, the gas central heating system will be replaced with an electric central heating system as in the pilot flat. This will involve removing all redundant piping and parts (apart from the external meter cupboards and supply pipework which are the property of the Gas Board). Gas cookers will not be affected.

We have undertaken an electrical capacity review and the report will be available shortly. We are also awaiting the report which will inform which flats are going to require a change from gas to electric.

The Corporation is looking into the availability of grants.

## **Vacuum Glazing**

Vacuum glazing is a form of double glazing but with much better insulation qualities, almost equal to triple glazing. It is increasingly being used in listed building refurbishment projects because it is very thin and can fit in existing frames.

Vacuum glazing was first proposed by Crescent House residents allowing the option for refurbishment rather than whole window replacement. At the start of the project extensive research was undertaken on the manufacturers of vacuum glazing and two were identified as being capable of providing vacuum glazing for the project. These were Fineo, a Belgium made product, and LandVac, a Chinese product.

The intention was to order both types of glass for the Pilot Project to see which manufacturer performed the best. Unfortunately, Fineo could not provide all the sizes of glass required, or toughened glass we needed, and were unable to meet the delivery dates they had promised. As a result, LandVac was installed in the pilot flat.

Both products have been specified in the tender for the main project.

Recently two of the LandVac window panes have been replaced, one with next generation LandVac and the other with Fineo. As outlined in the accompanying letter, all residents are welcome to come and view.

### **Project Board**

There is a cross-department Project Board taking in Major Works, Housing Management, Repairs and the Estate Office, which meets monthly in order to plan and co-ordinate for the project. A key focus, for example, is how the departments collectively manage and communicate around the temporary relocation of residents during the works, so as to cause the least amount of disruption and stress to residents.

If you have any questions email [jacqueline.swanson@cityoflondon.gov.uk](mailto:jacqueline.swanson@cityoflondon.gov.uk) or leave a note with your contact details in the Estate Office.