

# **GREAT ARTHUR HOUSE**

## Sprinkler Project



## **Great Arthur House Sprinkler Project**

### **Q&A and Indicative Plans**

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[catherines@commcommuk.com](mailto:catherines@commcommuk.com)



0800 772 0475

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## **Great Arthur House, Sprinkler Project – Online Public Webinar Q&A**

Following the online public webinar held for the Great Arthur House Sprinkler Project on Wednesday 26 May 2021, the project team has pulled together the questions that have been raised by residents and the local community and have collated answers below.

The recording of the webinar can be viewed on the link below:

<https://vimeo.com/558099670>

### **The Proposal**

#### **1. Where in my flat will the sprinklers be located?**

Sprinkler heads will be located in the kitchen, bathroom, living room, bedroom, hall and balcony of each flat. The requirement for sprinkler heads in all of these locations has been confirmed with the London Fire Brigade (LFB), Building Control and the City of London fire officer.

#### **2. Why is it necessary for there to be a sprinkler on the balconies?**

This is a requirement set by the LFB as it has experienced instances, which have caused fires in these locations. For example, from smouldering cigarettes.

#### **3. Will sprinklers be installed in communal areas such as landings and stairwells?**

The sprinkler pipework system will be installed throughout Great Arthur House within each home, corridor and stairwell.

Pipework and valves will be located in the communal areas. There will be two sprinkler valves concealed in decorated accessible boxing mounted at high level in each stairwell landing on the north and south elevations of the building, so a total of four sprinkler valves on each floor of the building.

We have looked into concealing these valves in existing void spaces, such as the riser cupboards, but they are unfortunately too large to fit in these spaces. They also need to be accessed in an emergency so cannot be behind locked cupboard doors.

Sprinkler heads will only be provided in flats, sprinkler plant areas and residents store areas at basement level. The installation and route of pipework in each location will depend on the nature of the area. The sprinkler system is also being tailor designed with consideration of the sensitive architectural heritage components of the building.

The requirement for sprinkler heads in all of these locations has been confirmed with the LFB, Building Control and the City of London fire officer.

#### **4. Will there be any exposed pipework? Will it go across the ceiling?**

The pipework for the sprinklers will be concealed inside voids as much as possible and any exposed pipework will be sympathetically boxed in and painted where possible.

We anticipate that there will be one pipe that crosses the ceiling of the bathroom from bulkhead to kitchen wall, which will be exposed and painted. The exact run of the pipework will be confirmed once we start on-site because every home in the building will be slightly different, in terms of the location of cupboards etc so we need to remain flexible to accommodate this where possible. There will also be exposed painted pipework in the stairway and communal corridors.

Indicative plans have been prepared and enclosed, which show the route of pipework for a typical flat.

#### **5. What colour will the conduit be painted? The conduit recently fitted in the internal hallways was left in a raw galvanised finish.**

There are both conduits and pipework and they will be painted or left to match existing, as far as possible, in compliance with the planners.

#### **6. What is the smallest size the boxing can be?**

The high-level boxing in the flats would project from the wall by approximately 115mm. The width of the boxing will vary to fit the location where it is to be installed and will be a maximum of 200mm.

#### **7. The sprinkler heads are relatively small why is the proposed boxing so large?**

The boxing depth is set to the required distance from the ceiling to the centre of the sprinkler head with projection to allow for the pipe to bend onto the sprinkler head.

**8. Can the sprinklers be set off by e-cigarettes?**

No, the outer disc of the sprinkler requires a temperature of 57 degrees to fall off and expose the head, which then requires a temperature of 74 degrees to operate and allow the flow of water.

**9. I am concerned that installing sprinklers into individual flats in Great Arthur House could cause huge amounts of water damage?**

Sprinkler systems are under the same pressure as the plumbing system but are tested at 2-3 times higher pressure during installation. The system is held at pressure and all pressure gauges are regularly inspected. In the unlikely event that there is a leak, the system alarms will operate and initiate an instant response for remedial action, which is not the case with the domestic plumbing system.

Each sprinkler head is independent and only the head(s) adjacent to the fire will go off. Sprinkler heads are designed to react individually to temperatures in each room. In most fires, only the sprinkler over or closest to the fire will activate.

When activated a typical sprinkler discharges 55 litres per minute. A firefighting hose discharges over 600 litres per minute. You can expect a sprinkler to discharge less than 5% of the water used by the fire service.

**10. I am worried that given the number of times the fire alarms have falsely tripped off since being installed, the same will happen with a new sprinklers system?**

While the fire alarm and sprinkler systems are connected, they operate independent of each other and are activated in different ways. The sprinkler alarm is operated by a flow switch, which needs to detect a flow in the pipe before activating. Records show that the chance of an accidental discharge from a defective sprinkler head is in the region of 16 million to one.

**11. What are the cons attached to having sprinklers installed?**

The most prevalent cons of sprinkler systems relate to the cost associated with the installation, as well as disruption to residents during the installation and maintenance process. In recognition of these cons, the City Corporation will be covering all costs to install the sprinkler system. We have also identified measures and protocols to be followed to manage the installation and maintenance processes, ensuring the works are carried out with as little disruption to residents as possible.

We are aware that residents may also consider the aesthetic of having pipework and sprinkler heads visible to be a con of the sprinkler system. In response to this, the City Corporation has been looking at bespoke designs to ensure the system has as minimal impact as possible on residents and the fabric of the building.

Pipework will be confined as far as possible to reduce visual impact and where it cannot be confined it will be painted to match the existing conduit. The sprinkler heads are also small, white and recessed. All that will be visible is a white 85 mm diameter thin disc, which will protrude from the finished surface by approximately 4mm.

**12. Please can you advise who you are discussing the proposal with at the Council? What departments?**

We are discussing the proposal with the planning department, which includes the planning officer who will be considering the application for Listed Building Consent. We have met with the planning officer on several occasions so far and we are refining the application accordingly following these meetings and ahead of us submitting the application.

**13. Why does the pipe route go through the bulkhead and out via that space, as opposed to cutting through the glass screen in the bathroom?**

We are trying to avoid penetrating through the glass screens in order to minimise the impact of the proposal following advice from the planners. We picked the bulkhead as it is a straight route. From this point, we can put a sprinkler head into the bathroom and then take a pipe across and go through the glass into the kitchen.

**14. Can the sprinklers be installed in a particular way to suit each flat, for example, is it possible for sprinkler heads and conduits to be chased into block walls to minimise the visual impact?**

It is unlikely that structural guidelines would allow this. Some of the flats are on the external wall, which is concrete and so we may not be allowed to put deep enough chases in there for the sprinkler head and the pipe.

**15. Have you considered utilising the riser cupboards in the hallways?**

We had originally considered for the main risers to come up through the building but after opening the panels on several floors we concluded that there was not enough space inside of them to fit the pipework and valves.

**16. What will happen if shelving or fitted wardrobes are where the boxing is proposed in flats?**

Every flat will be surveyed prior to the installation taking place, to allow us to understand the location of cupboards etc. We are using a bespoke design to allow us flexibility to accommodate this where possible. If there is shelving present, it may be possible to put a concealment behind it, so it becomes part of the system rather than having to remove it.

**17. Will the pipework be plastic or steel piping?**

In the flats where it is concealed, there will be a plastic pipe, which is orange in colour. Anywhere else where it is exposed, it will be a metal pipe and it will either be painted white or left galvanised to suit the local area environment.

**18. Do residents have an option over the appearance of the pipes in their flats?**

If the resident is happy with an exposed pipe rather than boxing, it can be steel/metal and can either be painted or left galvanised.

**19. Can you provide clarification on the works that will be undertaken on the elevations of the building?**

No works are planned on the two main building elevations (east and west) other than the installation of a new sprinkler head onto each recessed balcony.

**20. Could the gerda box be installed in a different location to the ground floor lift lobby, to prevent further degradation of this area?**

The gerda box and sprinkler fire alarm panel needs to be in a covered space at the central entrance to the building, which can be easily accessed by the Fire Brigade in the event of an emergency. The Fire Brigade has a drop-down key to access the lift lobby, which they would use in an emergency to access this space and in turn the gerda box. It would not be safe or appropriate to have this box mounted externally on the façade of the building. We appreciate the lift lobby does have several items now mounted on the walls and will do our best to streamline this equipment and limit its impact on the space.

**21. What is the reason for putting sprinklers in now?**

We have been engaging in a detailed review of the City Corporation processes and procedures relating to fire safety across our housing portfolio. The sprinkler system project

within Great Arthur House is part of a broader scheme of works to improve fire safety within the building.

This project presents a significant and necessary step in the development of Great Arthur House. It will ensure we can give all residents improved homes that meet modern and safe standards. Residents of Great Arthur House have already been made aware of the City Corporation's proposals and internal surveys to confirm general viability have been completed in approximately 12 flats.

Regular reports have been presented to the Community and Children's Services Committee, the Housing Management and Almshouses Sub-Committee and the Audit and Risk Management Committee, outlining the actions taken in the immediate aftermath of the Grenfell Tower fire and setting out plans and proposals for further improvements.

In May 2018, the Community and Children's Services Committee agreed on a proposal for the retrofitting of automatic water fire suppression systems (sprinklers) in Great Arthur House. The proposals are part of a broader scheme of works to improve fire safety within the building.

## **22. What are the listed building implications of the sprinkler system?**

As you will be aware, Great Arthur House is an iconic Grade II Listed building, which sits in the centre of the Golden Lane Estate. As such, any installation such as the sprinklers must take this listing into account.

We have designed the system to conceal as much of the pipework as possible in the existing voids inside the flats. The exposed pipework in the corridors will be painted to match existing trunking. The risers bringing the water up from the basement tank room will run up the existing metal brackets in the external stairwells and be painted black so will blend in with the existing services in that location. The planning officer is aware of the importance of this fire safety measure, however, has also impressed on us the importance of the design of Great Arthur House and we have incorporated this in the proposals.

### **Installation/Future Works**

## **23. When works start, what is the process for obtaining access to my flat?**

The contractor will be in touch at least seven days before requiring access to each flat to install the sprinkler system. This is a standard procedure, which will be followed to ensure contractors do not turn up and expect access with less notice than seven days.



This point of contact will enable the resident and contractor to discuss and agree when access is possible, at least a week before it is required. There will also be a conditional inspection of each dwelling before works commence.

**24. What are the estimated timeframes, in hours and days it's anticipated these works will take per flat?**

It is anticipated that the works will take approximately 3-4 days to complete in each flat. Residents will not be asked to vacate their flats for 3-4 days, the works themselves will take this long but will be completed with the residents still in occupation.

The contractors will remain on-site throughout the duration of the installation process.

**25. Does the 3-4 day time scale include decorative works?**

Yes, this is the anticipated time scale to complete everything, including all decorative work.

**26. How long will they take to install in the communal areas and what will be the overall installation time?**

The programme for installation of the sprinkler system is scheduled to take 12 weeks. The exact sequence of the works will be confirmed with the contractor once the contract has been signed and the detailed scheduling completed. The 12-week programme to install the sprinklers is based on the design teams experience of delivering works of this nature in similar residential buildings.

**27. Will a dedicated Project Manager representing the City of London be based on-site daily to monitor the works?**

Yes, we will have a Project Manager responsible for this project who was present at the webinar, Ian from Keegans. He will be responsible for the day-to-day project management of the scheme. However, the City Corporation officers will also be closely involved.

Ian will not be based on-site but will be visiting regularly. There will also be a clerk of works and design consultants, Butler & Young, will be making regular site visits to ensure the works are delivered to the required standard. The contractor will also have a Resident Liaison Officer who will be dedicated to working with residents and answering any queries you have during the delivery of the works.



**28. There are time restrictions for noisy works, what constitutes reasonable noisy work in a residential building and who from the City Corporation will monitor this?**

There will be time restrictions in place for works, during reduced impact hours works will still take place on-site but will not involve heavy machinery. The reduced impact hours are Monday to Friday 10am-12pm and 2pm–4pm. For example, ‘noisy works’ would involve drilling into concrete slabs and/or breaking out of concrete and works of this nature would take place outside of the reduced impact hours.

The noise levels will be monitored during the installation process, to ensure they adhere to the time restrictions.

**29. Will there be somewhere to have respite from the building works?**

We are looking at the possibility of providing space in the Golden Lane Community Centre for respite, subject to Government guidelines and restrictions at the time. We will also make it clear to contractors that some residents need assistance to ensure the works cause as minimal disruption as possible.

We are in the early stages of the project at the moment and will be looking into this further ahead of works commencing in early 2022.

**30. How will maintenance costs be covered?**

The cost of maintaining the system will be passed onto leaseholders as part of the service charge of Great Arthur House. The envisaged maintenance charge will be approximately £25 per dwelling per annum (£3,000 per year for the whole building). We are in the early stages of the project at the moment and will keep residents updated on this as we move forward.

**31. Have any surveys been done regarding asbestos in the building?**

We are aware of asbestos in certain elements of the building and will be considering this as we move forward with the project.

**Next Steps and Other**

**32. Can you provide us with more information about the listed building application?**

The application is due to be submitted in the next couple of weeks and will have an eight-week determination period, which will involve a statutory consultation process allowing

people to make comments on the application. Once the application is validated and available to view and comment upon on the planning portal, we will be in touch to give you details to access.

**33. Do residents need to look at getting additional insurance to cover having sprinklers installed?**

We would not expect personal insurance premiums to increase because of the sprinkler system being installed as it is an added protection from fire damage. Fire damage far outweighs the damage that would be caused by the activation of a sprinkler.

Following comments from residents on this matter we are further investigating this and will seek to provide an update where possible. We recommend that residents make contact with their own insurers to fully understand their own insurance cover.

**34. Will you be improving any other fire safety measures within Great Arthur House, such as new fire safety doors?**

Yes, other projects are being handled by the Major Works Team, including upgrading the front entrance fire doors and compartmentation. The sprinklers project is being delivered first to avoid any of the compartmentation works having to be done again in locations where sprinkler pipework has had to pass through walls.

**35. Will an exhibition or face-to-face event be held for residents?**

When allowed, we are very keen to set-up a public exhibition that can be semi-permanent to enable resident's flexibility to come and view the plans. While restrictions are in place, we unfortunately are unable to do this face-to-face.

In the meantime, we held an online webinar and have offered all residents one-to-one meetings to discuss the plans. We are in process of setting up a dedicated project website and once restrictions ease, we will be back in touch regarding the exhibition.

**36. Will we be able to see the equipment and pipes ahead of them being installed?**

When allowed, samples will be available to show during any future events, including one-to-one meetings to discuss with residents. We have included some images in the information booklet to help give an idea of the different parts.

**37. Would it not be better for City of London officers to make themselves available for one-to-one meetings?**

A City Corporation officer will be present during all of the one-to-one meetings with residents. Comm Comm UK is assisting in organising the meetings and administration.

**38. How many fires have there been at Great Arthur House since it was built?**

We are looking into this and will come back with more information in due course.

**39. Do residents who do not wish for this system to be installed in their homes have any right to refuse it?**

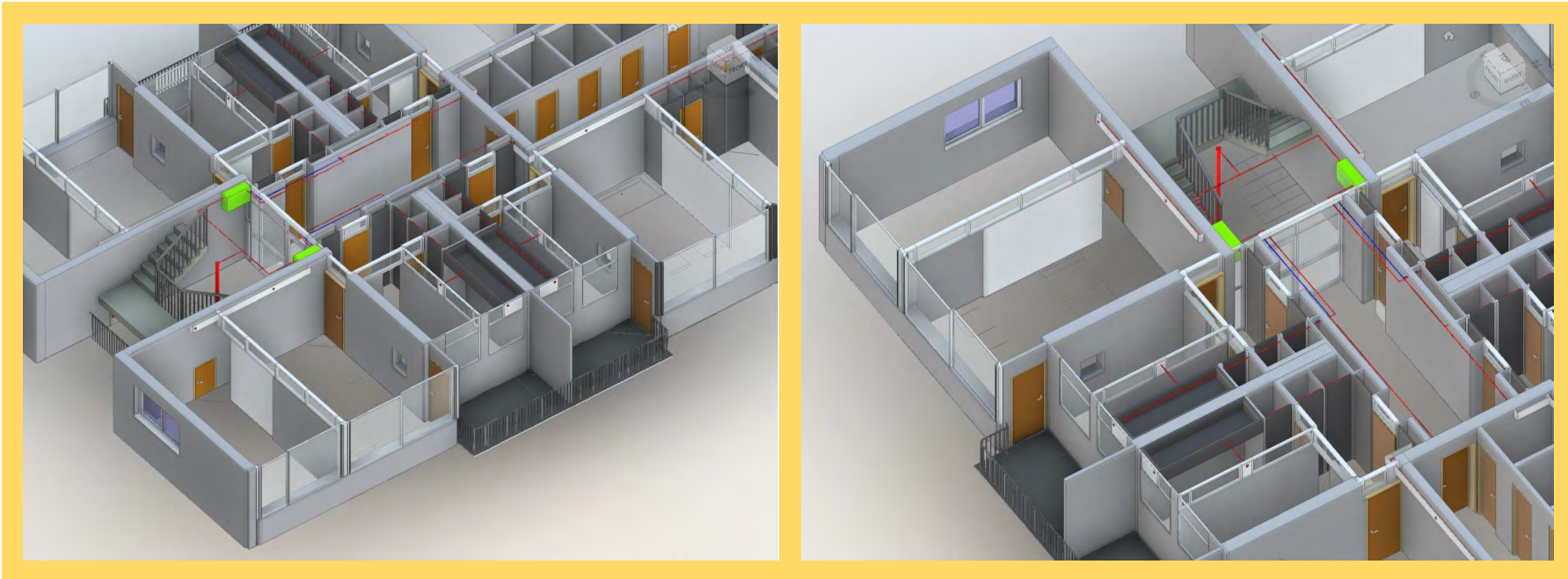
We strongly encourage leaseholders accept the installation of this important fire safety upgrade in their homes for their own safety. However, if leaseholders refuse access following negotiation, we would need to assess the next step forward.

**40. Are the Barbican Towers included in these works?**

This project team is only working on proposals for the Great Arthur House sprinkler system. The project is being brought forward separately from matters at the Barbican and we are therefore unable to provide any comments on this.

**ENDS**

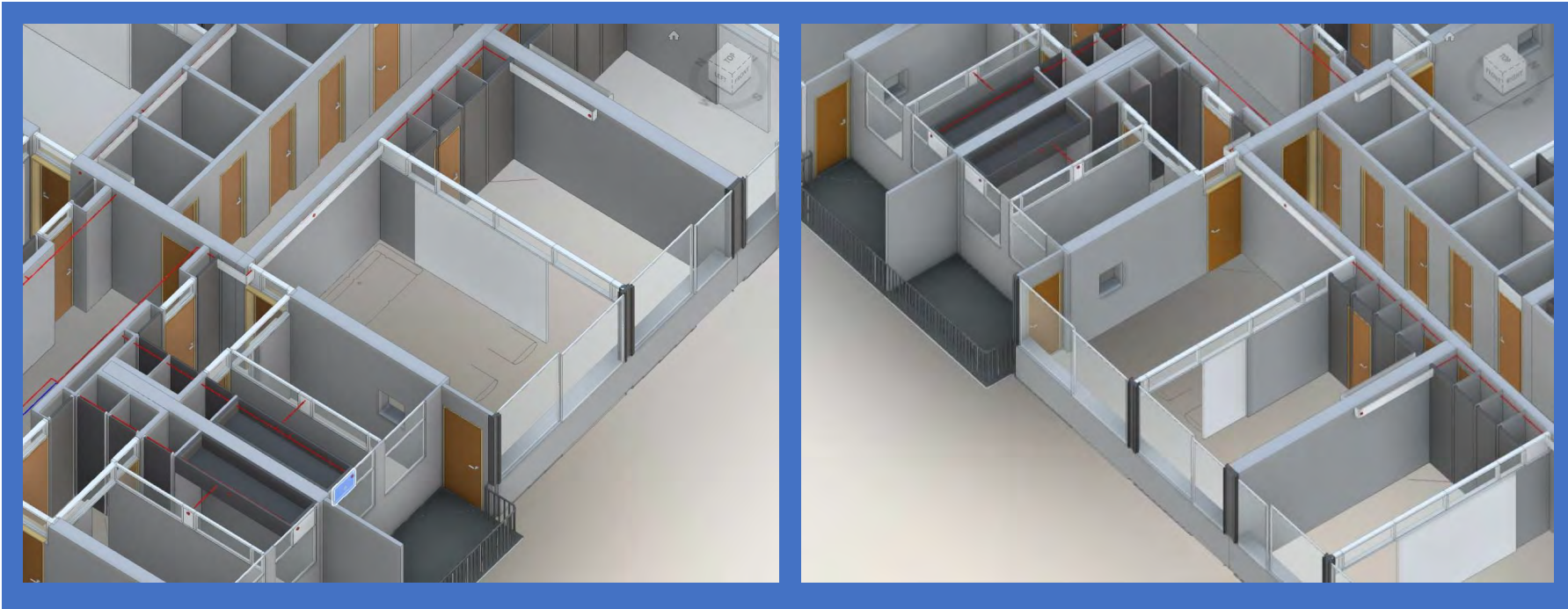




Above : **FLAT TYPE 1** Proposed Images



Below : **FLAT TYPE 2** Proposed Images



\* Please note that these are indicative images. The 3D model is still being developed.



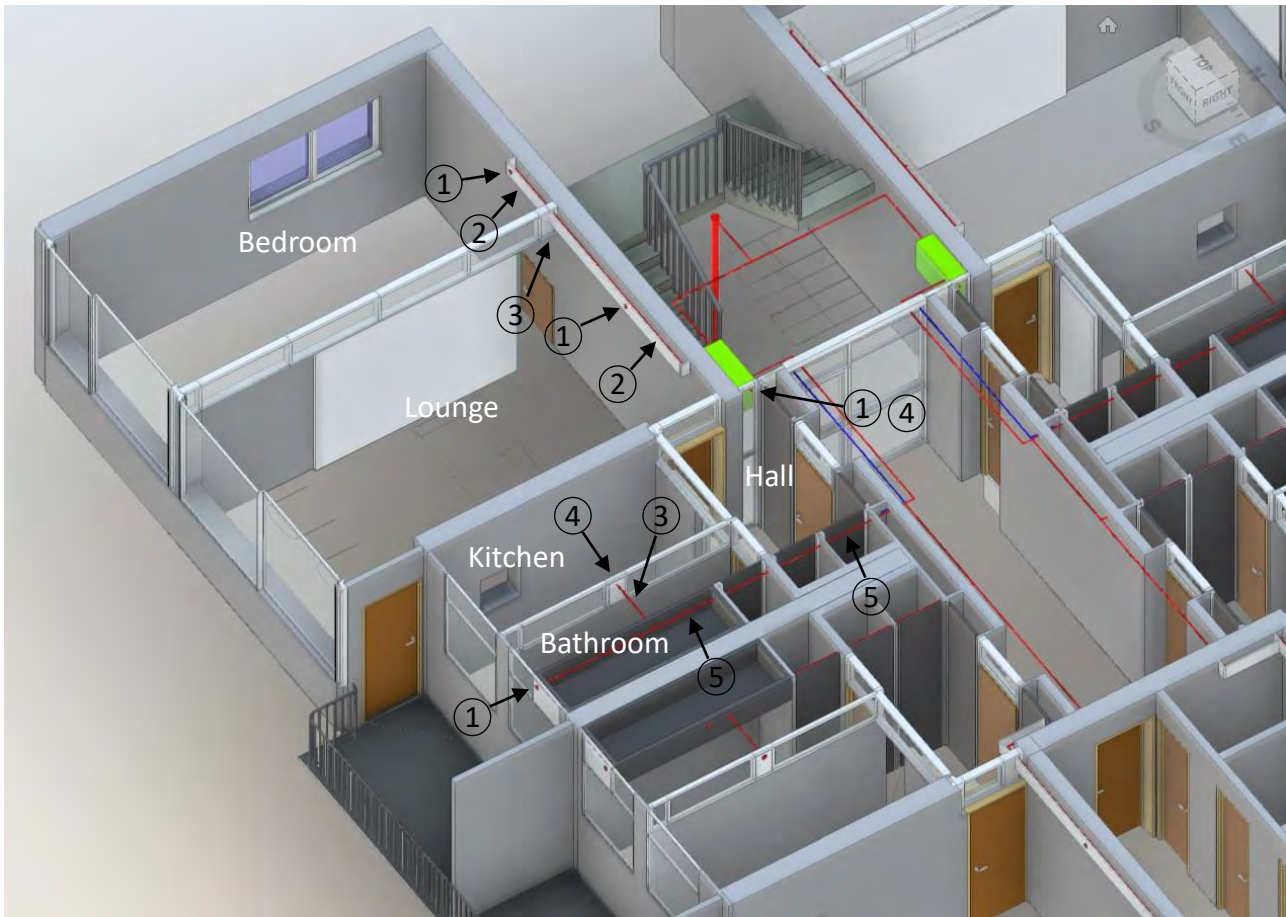
3D Model Images explained

Below : **FLAT TYPE 1** Proposed Images



Key

- 1.Sprinkler Head (red circle)
- 2. Boxing
- 3. Piping Route (red line)
- 4. Adapted Overpanel
- 5. Concealed Pipework

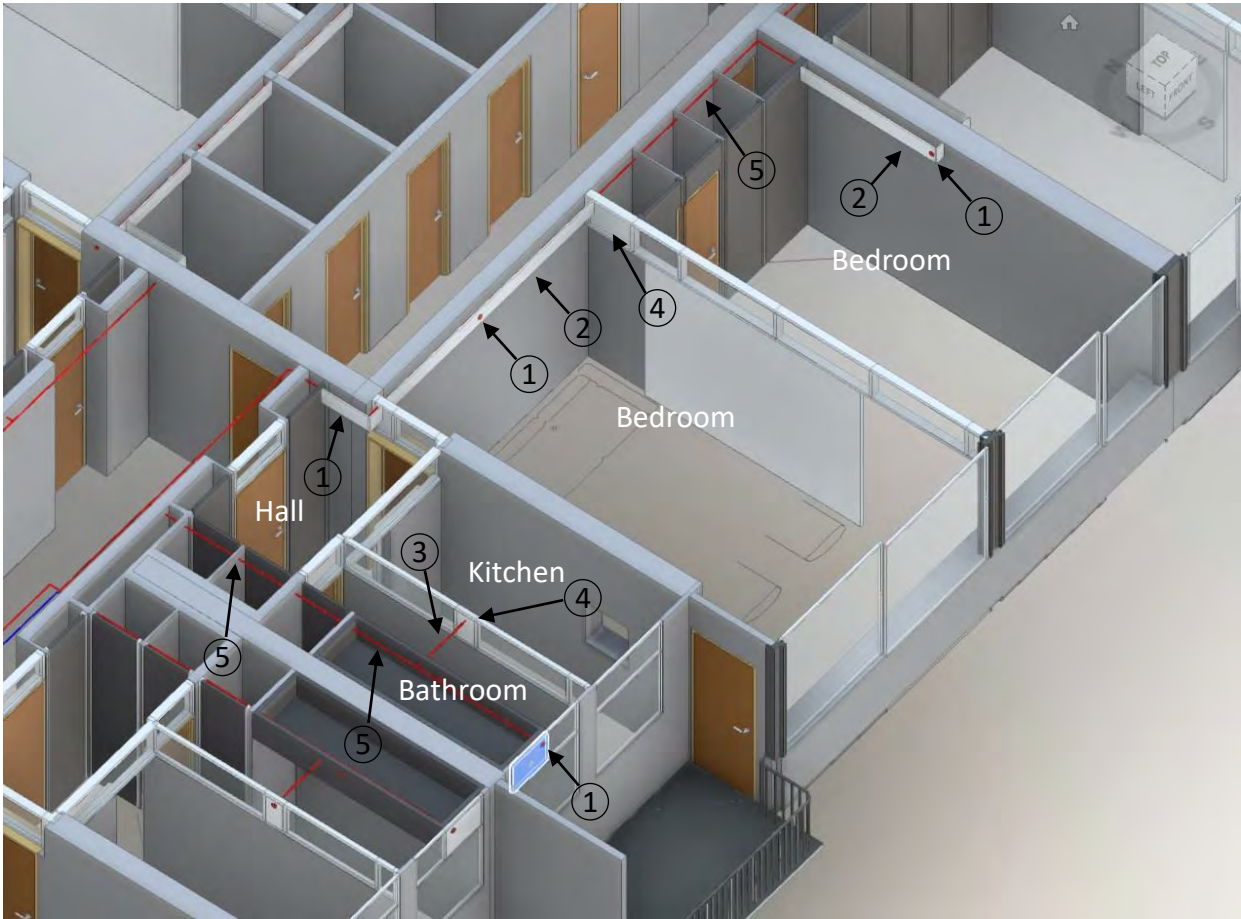


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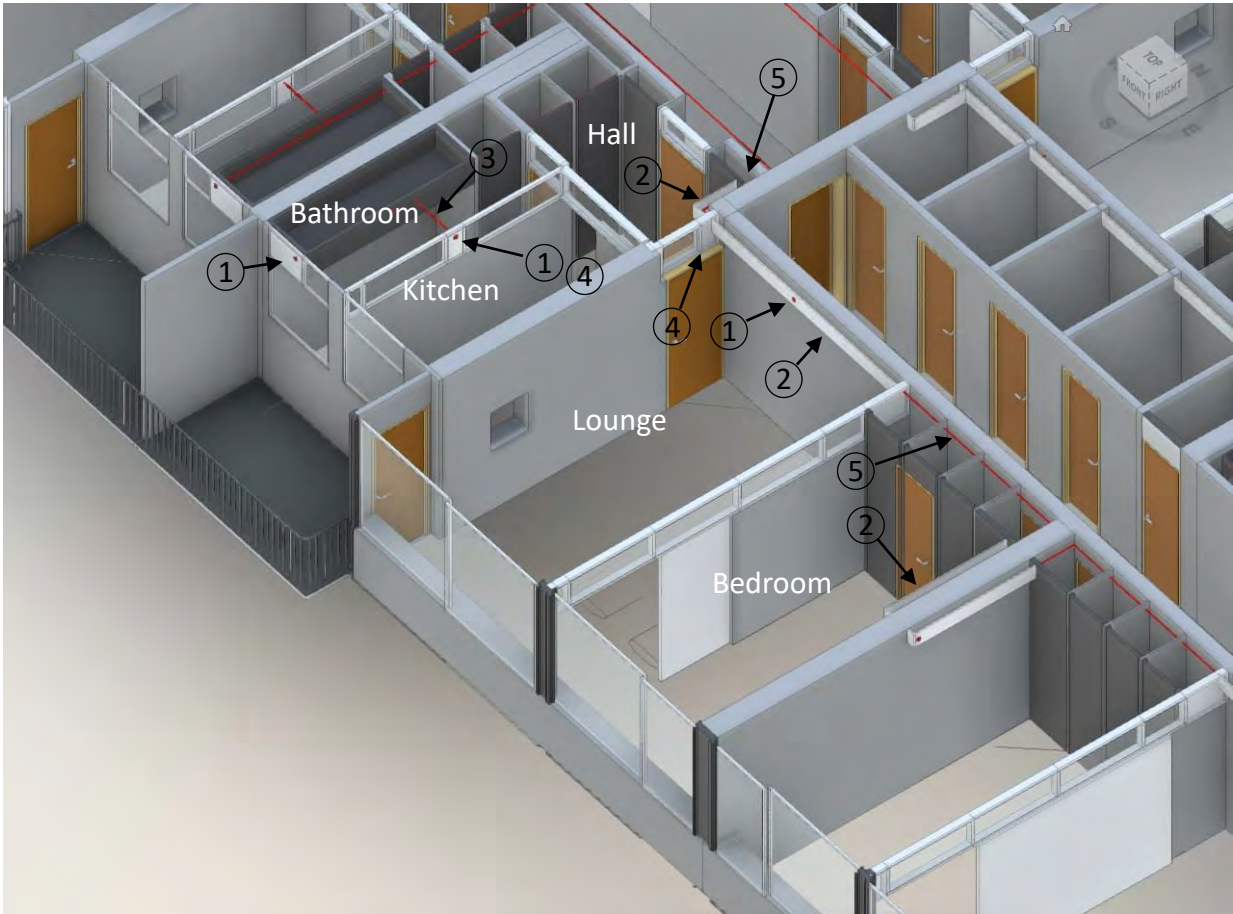
3D Model Images explained

Below : **FLAT TYPE 2** Proposed Images



Key

- 1.Sprinkler Head (red circle)
- 2. Boxing
- 3. Piping Route (red line)
- 4. Adapted Overpanel
- 5. Concealed Pipework



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