Building Safety Act – why is it needed

- Guarantee that we are doing what we should have been doing
- Designing in line with building regulations
- Selecting products that satisfy specs
- Record what was installed – and that it was done properly
- Record when products/things have changed

It will be in the O&M

It will be in the BIM

Regulation 38

Big secret

It won’t

The Golden Thread of Information

Product (Asset)

Process

People

The Golden Thread of Information

What was specified

What was installed

What was its performance

Who installed it

Who inspected it

Who maintained it

What replaced it

The Golden Thread of Information

What risks do we anticipate

What measures do we need to mitigate them

What products do they comprise

What information do we need to know

Design, installation, inspection, maintenance.

Competence

Training

The Golden Thread of Information

Digital Record

The Responsible Person must confirm receipt of the fire safety information and that it is sufficient to enable them to understand, operate and maintain the building (and the fire safety systems in it) after the building work in question.'

Approved Document B - Reg 38

The Golden Thread of Information

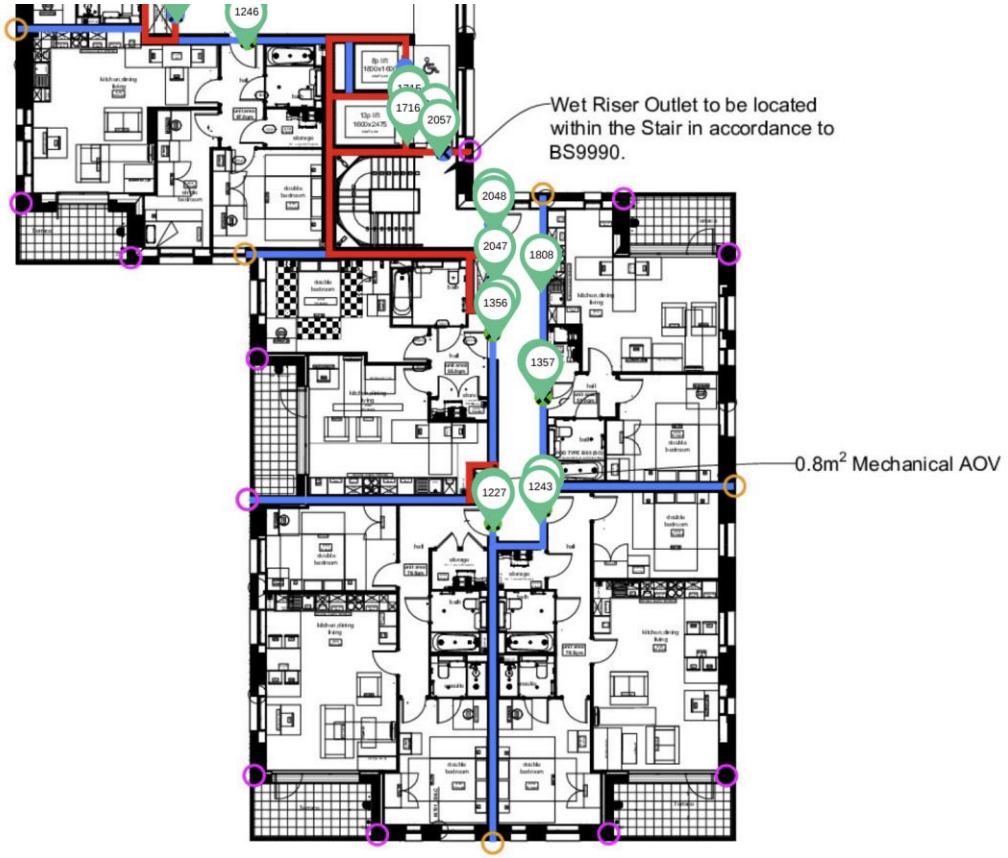
'The Building Safety Act 2022 requires you to store information about your building. This information should be ***accurate****,* ***up to date****,* ***accessible*** *and* ***kept*** ***digitally****. This is known as the golden thread of information.'*

Why does it need to be Digital?

Audit and validate

Manual versus Automation

The Golden Thread of Information



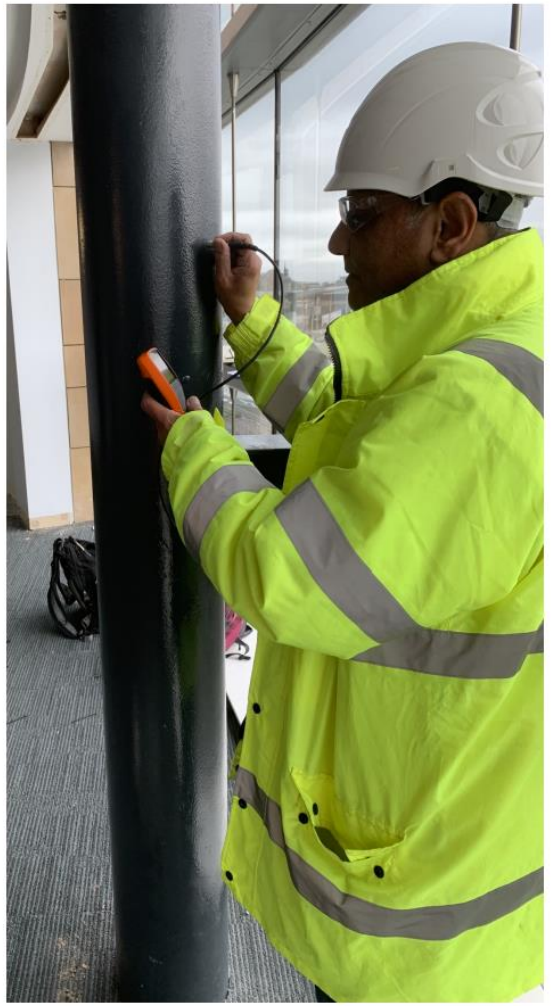
The Golden Thread of Information

The Golden Thread of Information

Building Safety Act - Golden Thread

- Not just for new relevant buildings….
- Existing relevant buildings need to know what is in the building
- Not knowing is a risk, which needs to go in a safety case….
- The challenge – even buildings built in 2000's have lots of missing Reg 38 information…
- How often do we get asked questions about historic buildings without knowing what PFP has been installed??

Where information is not available, you will have to show what you have done to find it. If you find problems with your safety measures, review and amend your maintenance regimes. It is important you keep this in mind as your building ages and equipment and technical progress develops.



Stakeholders

BIM = Better Information Management

WORKING GROUPS

- DEVELOPMENT
- DESIGN
- CONSTRUCTION
- MANUFACTURING
- ADVISORY
- OPERATIONS

WORKSTREAMS

- DATA
- PROCESS
- FIRE SAFETY
- SUSTAINABILITY
- DIGITAL RECORD

SOLUTIONS

Standardised Requirements
Data Templates

Classifications
Reusable data libraries

Method Statements for
12 Fire Safety Critical Asset Types

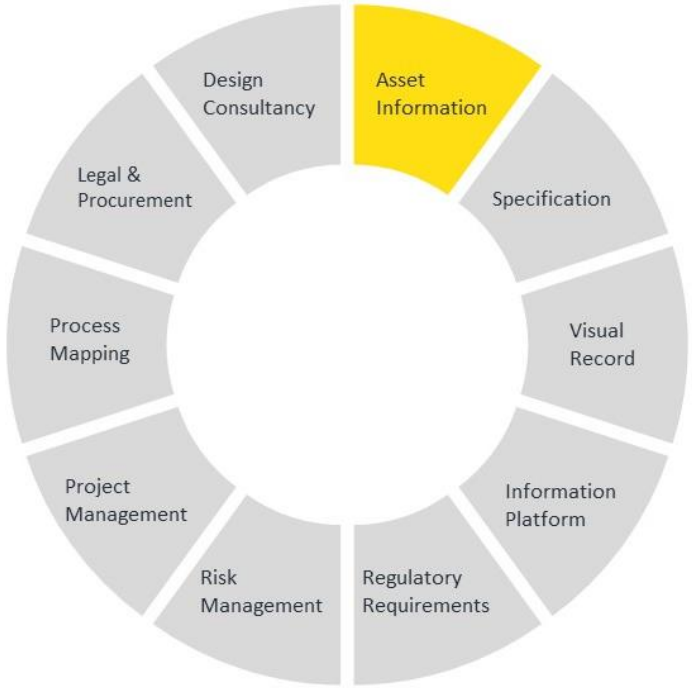
Survey Report
Zero Playbook
Measurement/Innovation

Procedural Guidance
Product Data Libraries

Our Community

Golden Thread Initiative

BIM = Better Information Management



DEVELOPMENT

DESIGN

ADVISORY

CONSTRUCTION

MANUFACTURING

OPERATIONS

Deep-dive from Subject Matter Experts

https://bim4housing-blackbox.com/publications/


For AOVs


For Firedoors


For Cavity Barriers


For Fire Alarms and Fire Detector Systems


For Dry-Wet Risers


For Emergency Lighting


For Sprinkler Systems


For Fire Dampers

For Fire Safety Signs


For Drylining and Fire Walls

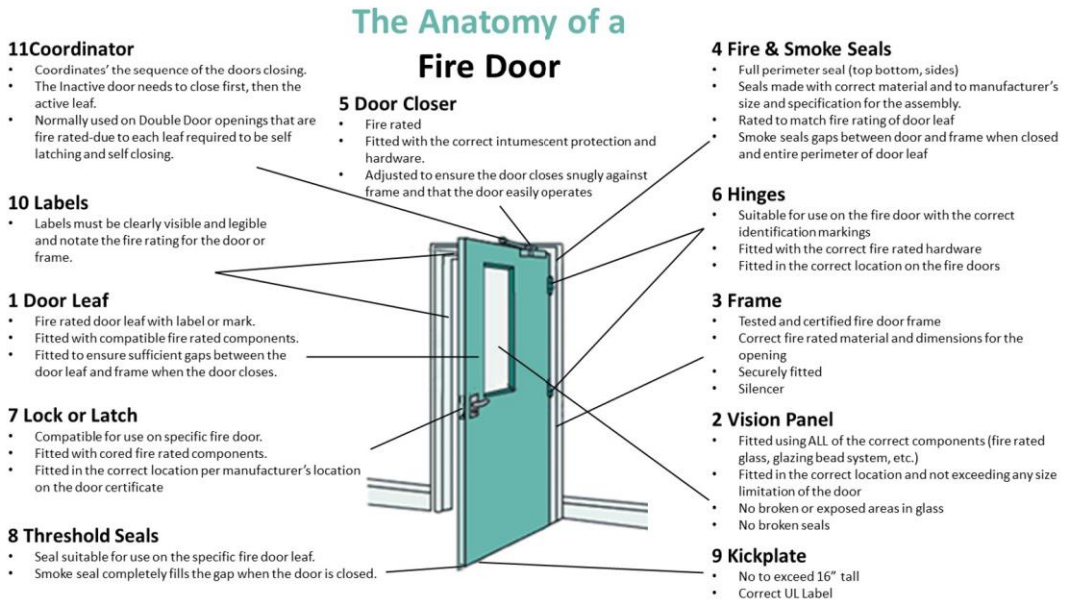

For Smoke Control Dampers


For Fire Penetration Seals


BIM4H Golden Thread Safety Case Checklist

What does the Asset comprise?

- Door leaf – the door itself
- Door frame – must be compatible with the door leaf
- Smoke seals – fitted around the edges of the door leaf or frame
- Intumescent strips – fitted around the edges of the door leaf or frame
- Hinges – must have a minimum of 3 hinges
- Door closer – a facilitator to ensure the door closes automatically
- Latch/lock - fitted within intumescent protection for fire/smoke resistance
- Threshold seals – closes the gap underneath the door leaf when closed
- Signage - indicating it is a fire door and should be kept shut/locked
- Glazing - glazed panels in fire doors (must be suitably fire resistant and fitted with intumescent glazing seals)
- Air grilles - used where extra ventilation is required
- Additional ironmongery - such as push bars and push pads on some fire doors



What risks does it mitigate

1a. What risks does a Fire Door mitigate?

- Risk of smoke build-up
- Risk of heat build-up
- Risk of spread of smoke (if smoke seals fitted), risking smoke inhalation and suffocation, along with impaired visibility
- Risk to fire-fighter's access
- The risk of the spread of fire and products of fire (fire, smoke, heat) via cavities in external and internal walls, along with other concealed cavities (such a roof and ceiling voids)
- The risk of spread of fire, smoke, and heat between building compartmentations.
- Risk of speed of fire and smoke spread
- Risk of number of uncontained areas
- Risk of inhibiting safe exit from the building
- Risk of fire brigade not having enough time to attend before fire spread
- Risk of system failure.
- Risk of Injury/harm/loss of life to residents/occupants.
- Risk of smoke damage and subsequence.
- Risk of compromising security, both for the building and individual apartments, when doors don't close properly or are propped open.
- Risk of reduced thermal efficiency
- Risk of degraded acoustics.
- Risk of damage to property, building or structure

1b. To what risks is a Fire Door, itself, susceptible?

- Risk of additional items having been placed into an escape route (such as a sofa), not having been considered at design stage, could provide fuel for a fire and have the potential to counteract the AOV/smoke extraction system
- Risk of incorrect replacement components having been installed
- Risk of human intervention on ancillary assets, such as smoke detectors, impacting on asset performance
- Risk of information on an individual asset being incomplete, inaccurate or absent
- Risk of information on an individual asset not being supplied in both digital and physical format
- Risk that the asset has not been tested against the 'Cause and Effect' document
- Risk of other trades and employees not appreciating the asset's function and so compromising its performance
- Risk of non-appreciation of the differences between performance of assets in compartmentalised areas versus performance of asset's in shared circulation areas
- Risk of vandalism or simply misuse

Materials

- Building movement / shrinkage causing, for example, gaps
- Excessive water damage
- Some Laboratory testing not covering real-life scenarios

- Being blocked

- Being propped open
- Modifications to the door e.g. because it has dropped or that there is a new carpet in the flat, adding a cat flap, new glazing, adding sound-softening strips, ring doorbells
- Where something adjacent to the door is modified e.g. a new floor surface in the corridors that is of a different depth, creating a gap
- Damage or degradation that comprises the integrity of the door, seals, hinges or closure
- Inadequate fire stopping between frame and structure
- Being painted over

Information to ensure it performs as required

Requirements

- Type of door
- Age of door (manufacture date / installation date)
- Likely frequency of use
- Nature of its day-to-day operation
- Door location including x,y,z coordinates
- Door relation to Spaces
- Door number
- Fire Doors to be clearly marked as such both sides, to avoid referring to a identify doors and ratings
- Tenure of resident (for flat entrance doors)

Specification

- Certification of manufacturing by UKAS accredited body
- Test report to confirm fire resistance performance to BS 476-22 or BS EN
- Smoke control
- Seals (Intumescent, Brush, Both)
- Ironmongery details – CE marked Hinges (need to know there are three h cylinder, locks and latches, fire rated door viewer, emergency escape (pu
- Glazing within the door leaf or door set indicating the level of fire resistar
- Door closer type
- Door closer suitability for size and weight of door
- Door closer suitability for users
- Door closer delay, for elderly
- Door closer method of operation
- Door closer hold-open devices, "fail" mechanisms
- Smoke test certificate
- Smoke control performance
- Acoustic properties
- U value properties
- Security properties
- Weather proofing properties (if installed externally)
- Fire Door set manufacturers installation Instructions, including allowable

Construction

- If supplied as one unit, if full door set was produced and tested together and has Product certification / Test data for door set to BS 476-22:1987 or BS 1634-1:2014.
- Q Mark Plug
- Is the signage adequate (for a communal door)
- Full and unambiguous installation instructions covering:
  - Gap tolerances between frame and structural opening
  - Gap tolerances between frame and door
  - Gap tolerances between at base of door, with clear instruction for cold smoke control
  - Fixing of frame to walls
  - Suitable products for filling gaps between frame and wall
- Insulation and integrity rating relevant to its immediate location
- Documentation from the fire doors manufacturer
- Manufacturer details and contact information

Installation

- Whether the door was installed correctly (packed and sealed) by a competent person (third party accreditation) with evidence (including name of installer)
- Supervisor competence – Firas, BM Trada, IFC or be named as a competent supervisor in the company UKAS accreditation.
- Installation training, manufacturer training and/or toolbox talk
- Installation records/photos
- Quality Checklists – Fire Door Installation
- Any third-Party Inspection Records (FDIS or Similar where applicable)
- As-Built drawings showing the Fire Strategy drawings indicating the fire performance of compartments, along with a door schedule
- Product model, batch number and any other unique information required to obtain replacement
- Evidence of training provided to the customer (attendance records and ideally a video)
- Details of any automation that has been added to doors (this can be added at install but also retro. E.g. Hold open magnets, fail safe open connections.)
- Details of anything else that has been added that might connect into the fire alarm systems- not all are on sound
- Cause and effect diagram

Tasks for install, commission, inspect, maintain

Specification

- Method statements/procedures for fitting to include:
  - Gap tolerances between frame and structural opening
  - Gap tolerances between frame and door
  - Gap tolerances between at base of door, with clear instruction for cold smoke control
  - Fixing of frame to walls
  - Suitable products for filling gaps between frame and wall
- Specification linked to fire strategy of the building to ensure door specified correctly

Installation

- A clear competency regime for installation and record at handover / commissioning of the door set that should include full details of the inspection regime to complete the manufacturer's warranty. This should be commercially and or contractually linked to the installer / supply chain to incentivise the right behaviour.
- Method statements/procedures for repairing all components of door-sets
- Method statements/procedures for inspecting all components of door-sets
- Method statements/procedures for maintaining all components of door-sets
- Details of approved code of practice being adhered at each stage, such as UKAS accreditation
- Evidence of training of those undertaking any work with the ACOP being adhered to.
- Third party accreditations
- Specific product/s system to be used together that are specified in MSDS sheets or systems by manufacturers
- Details of permitted modifications
- Manufacturer-specific installation, commissioning, inspection, maintenance/repair, replacement, and recycling requirements to inform future maintainers of the manufacturers' recommendations.
- Specific method statement to ensure the fitting around the door meeting the fabric meets the same fire resistance as the door
- Appropriate evidence of installation (pre, during and post)
- Certification and O&M manuals

Inspection

- Audit inspections from a third party
- Detailed methodology for inspection:
  - Does the fire door shut fully and tightly into the frame manually and on its own using its self-closing device?
  - Is the self-closing device damaged in any way? (e.g. is the arm secure and functional?)
  - Is the gap between the door leaf and frame less than 4mm?
  - Are the glazed vision panes and the beading around the door undamaged and secure?
  - Is the door leaf and frame in good condition and undamaged?
  - Are there 3 hinges installed, with all screws in place and not painted over?
  - Do the hinges appear to be loose or damaged?
  - Are the door handles secure and undamaged?
  - Are the intumescent strips and smoke seals in good condition (e.g. not missing, damaged or painted over)?
  - Is the appropriate signage displayed on both sides of the door indicating it is a fire door?
  - Are any fire doors being obstructed or left open?

Levels of competency/training required

Installation

- Competency of individual installers demonstrated through certification with a suitable 3rd party accreditation provider. This should include the provision of the manufacturer's fitting instructions
- Specification of which third party accreditations are acceptable (e.g. Trada, Firas, BM Trada, IFC etc.) should be required
- Ongoing demonstrable CPD of installer (not simply the company they work for). For example, operatives installing products should have achieved L2 NVQ Diploma in Wood Occupations (Construction) - Site Carpentry (CSCS blue card) or L2 NVQ Diploma in Associated Industrial Services Occupations - Passive Fire Protection (Construction), both with the mandatory module for Installing Fire Resisting Timber Door sets in the Workplace
- Supervisors should have achieved L3 NVQ Diploma in Wood Occupations (Construction) -Site Carpentry (CSCS gold card), or IFE Level 3 Certificate in Passive Fire Protection or be named as a competent supervisor in the company UKAS accreditation (see https://essentialsiteskills.co.uk/course-index)
- Installer should have manufacturer-led product-specific installation training, in addition to any formal UKAS accreditation.
- Manufacturers should offer installation training, either in their own right, or sub-contracted out to a specialist to provide that service
- code of practice should include training materials

Maintenance

- Manufacturer-specific installation, commissioning, inspection, maintenance/repair, replacement, and recycling requirements should be retained to inform future maintainers of the manufacturers' recommendations.
- Mandatory awareness training should be in place for all people working on site and carrying out maintenance in buildings
- Training for the operational team should be required on Standards (BS, CEN etc.) plus to give a basic understanding of how to read drawings, commissioning certs, O&M's,
- BSI Flex 8670 focuses on the competence of individuals and expects that organisations use this core criteria as part of their management of competency (planning, monitoring, reviewing etc.). This also enables the capture of the skills, knowledge, experience, and behaviors necessary to the undertaking of a defined role, function, activity, or task.

(See Appendix 3 for Additional Participant Input)

How should product changes be recorded?

- A schedule of safety critical elements for the building, to include products specified
- Baseline against which to compare proposed alternative products (Some designers have expressed reluctance to propose (not specify) a specific manufactured product that will satisfy their design due to liability, procurement rules and fees)
- This schedule would be "Locked" at a specific design stage, after which changes to products specified should not occur except for exceptional reasons
- A formal change management system is required to ensure that any unavoidable changes are validated by a 'responsible' person e.g. original designer and/or fire engineer
    - There is a well-established change management process in construction called Technical Submissions in which requested changes from the specifications/recommendations, that were created by the designers (and selected manufacturers), need to be formally reviewed and approved. Design-and-Build procurement has affected that process and it should be reestablished in a way that the performance of a proposed product, and its constituent components, is easily compared with the proposed alternative and, if agreed, it is recorded as a Technical Deviation
- Validation of changes would include verifying that the new product met all the requirements for the application with no detriment to the overall design, the details of which should be recorded (Changes in the product may be made between design and procurement, procurement and installation, handover and ongoing maintenance)
- More onus needs to be on the client during the collation of Information Requirements and the updating of design models into 'as installed' content suitable for Asset/Facilities Management
- Full Disclosure of the product is needed at handover so that after Work Stage 7, if a manufacturer goes out of business or products change the record is there in perpetuity
- Asset database must be kept up to date with core data for new installs. Installation documents should be held in a centralised digital location. Once BIM/COBie level data is manageable within the asset management system then this will be used as the main source of data.
- BIM, CAFM, Asset and Housing mgt systems must inform the change management process
- H&S files for each building (cradle to grave) must be supplied, recorded and be updated with

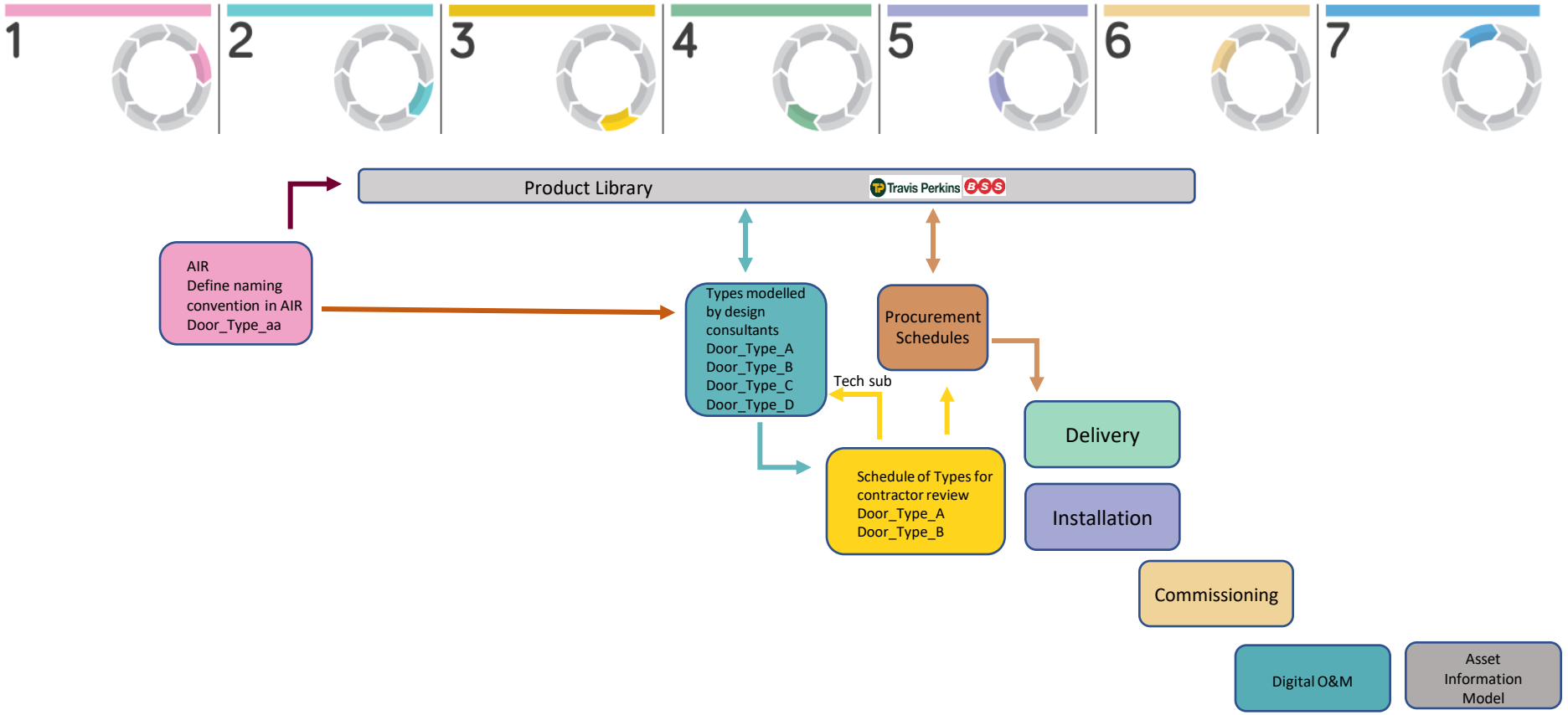
- Asset tagging (barcode) systems and processes should be considered as forming part of the change management process.
- Procurement should be included in the process, recording what was purchased and feeding that into the BIM process to locate where they were installed, or which products they are replacing.
- Specification or design brief for the business (performance and or product) should be recorded in a machine-readable format to enable validation against the Golden Thread.
- Record the compatibility and compliance of any ancillaries and confirm they comply with the test data? (Ironmongery, door access control systems, vision panels, vents)
- Any adjustment, repair, addition to / removal of product, ironmongery or fittings must be recorded and should only be undertaken by a licensed / accredited contractor (this includes and modification to an existing asset)
- The asset information needs to enable comparison but the original performance spec of the AOV and the related information such as Fire Strategy and Cause and Effect should form part of that Technical Deviation process. The FMs must be able to update the Asset Information Model with machine-readable data of the newly installed product
- Recording who has worked on/replaced the component and their entitlement/competence to do so
- Evidence that the component's performance in relation to the part it plays in the system has been considered and is warranted
- Manufacturers must provide a component list (e.g. ironmongery on a door) so if anything breaks, a direct replacement can be used.

- Removal of certain products/materials must be undertaken by people who are on an approved list, certified by an accreditation body and should require advance notice to all certification holders, with signoff to ensure traceability

(See Appendix 4 for Additional Participant Input)

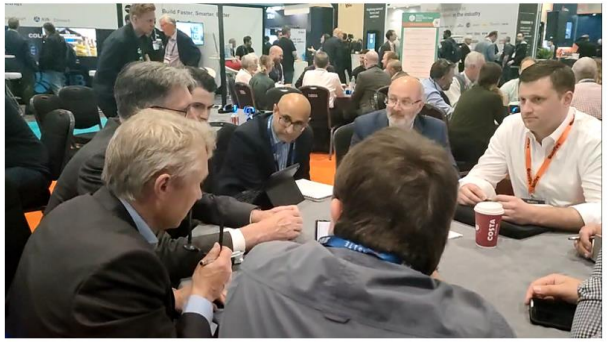
Change Management

Progressive Specification, Validation and Assurance



Building Safety Act – why is it needed

1. How do we prevent incorrect design, selection, and installation of fire safety products?



Will Perkins	SE Controls
Jimmy Collins	Knauf
Roy Buckingham	Abloy UK
Craig Wells	Quelfire
Elliot Dawson	Distinction Doors
Stephen Gore	Swegon UK
Paul White	Ventilation Fire Smoke
Gordon Crick	HSE
Sam Sambasivan	LUL/BB7

2. How do we ensure continuity and relationship of asset safety information throughout asset lifetime?

Elliot Brown	The FDI
Chris Lucas	HSE
Andrew Sturgess	Aico
Ian Smith	Select Consultant
Ishka Heart	Network Homes
Alastair Brockett	Hilti
Niall O'Rourke	Ruark Consulting
Glen Jackson	Swan House
Ben Blackwood	Ballymore

3. How do we ensure that the Building Safety data is live – not an outdated snapshot in time?

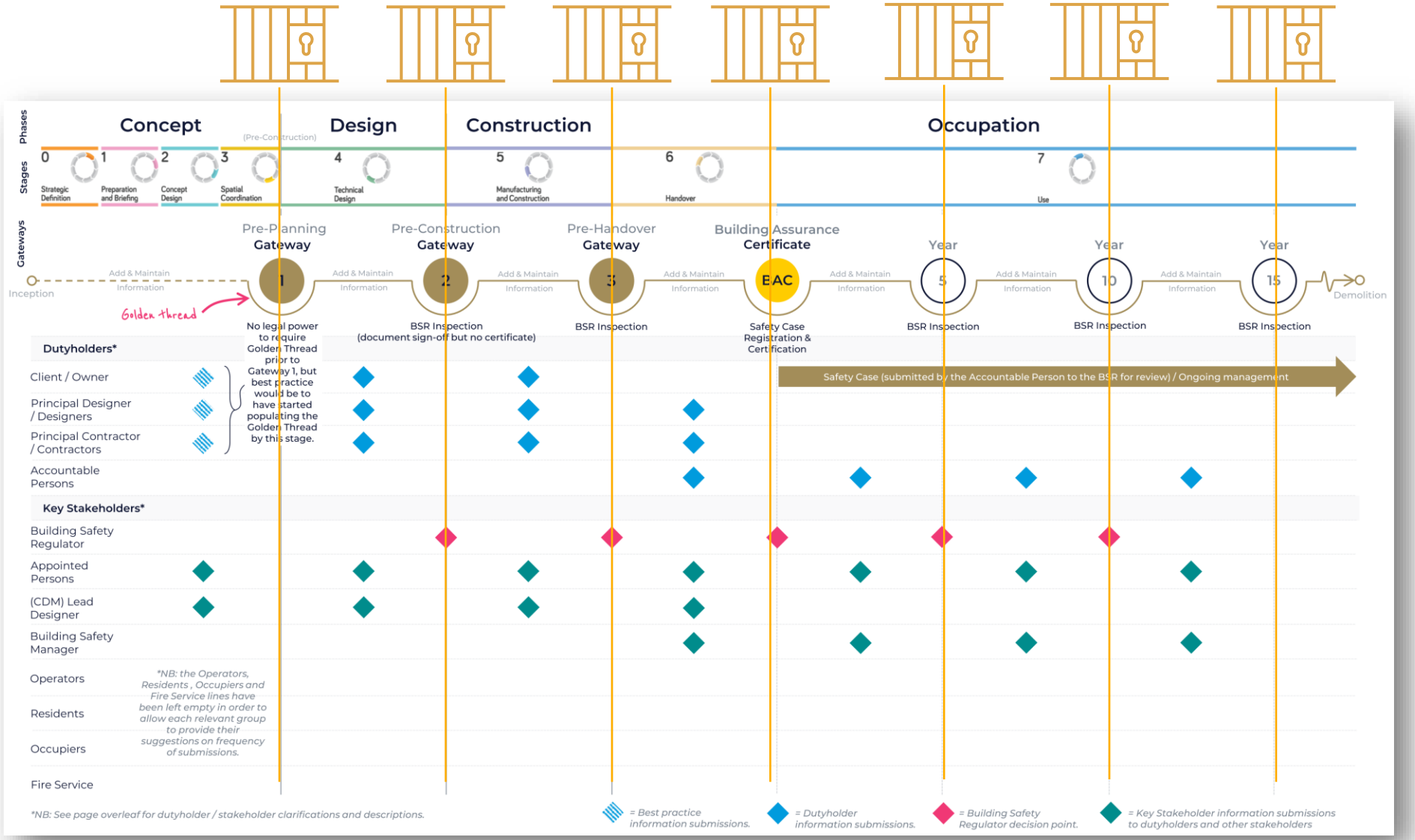
Andrew Holley	Tower Hamlets Community Housing
Edward Coster	Clarion
Neville Tomblin	Southampton City Council
Adam Sanders	Risk Base
Simon Collery	Camden
Jenny Harris	Sanctuary
Ana Matic	Scott Brownrigg
Will Franks	Adelard (NCC)

4. How do we ensure that the incomplete Building Services Design does not impact Construction ?

Paul McSoley	Mace Group
Jarek Wityk	Winter Electrical
Scott Sanderson	PRP
George Stevenson	Activeplan
Dave Peacock	Operance
Mandeep Singh	Hydrock
Paul Oakley	ActivePlan

Information Gateways

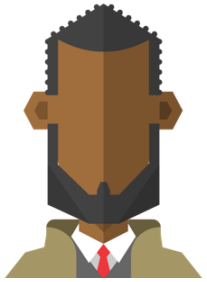
Golden Thread Initiative



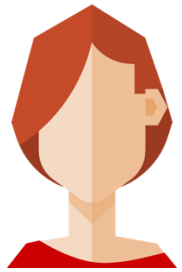
BIM 4 HOUSING

Small works

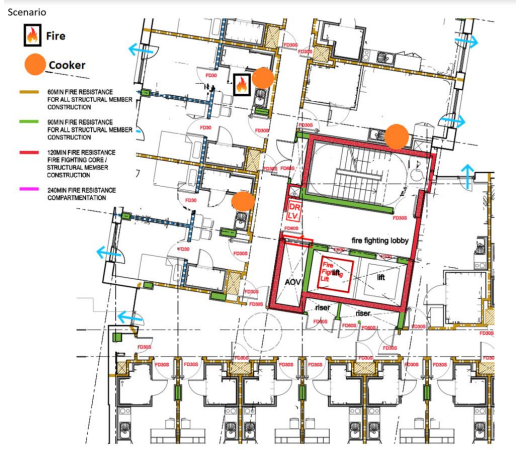
Compliance



Asset team



Safety managers




GERDA
uniting fire safety & security

Certificate of Conformity

This is to certify that your Gerda Safer Homes Doorset is manufactured by Gerda under the third party accredited scheme BM Trada Q Mark both for Fire Door Manufacture, certificate number 277 and for Enhanced Security Manufacture, certificate 051. The doorsets are supplied from one source providing you with complete traceability.

Secured by Design

Additionally your Safer Homes Doorset is CE marked to EN14351-1 and is Secured by Design Accredited. It is extensively tested to a wide range of performance standards at UKAS accredited test laboratories with test reports for each test.

CE

Performance Standards

Design-engineered doorset formed of timber door-leaf and timber hardwood frame. Successfully tested in full scale tests for the following performance standards meeting and exceeding requirements as follows:

EN1634-1 for Fire Resistance
EN1634-3 for Smoke Control
PAS 24 for Security*
EN ISO 10077 for Thermal Insulation
BS6375-1 for Weathering (wind resistance, water tightness and air permeability)
BS6375-2 for Durability

*Double glazed units used in doorset design or any fanlights or sidelights contain safety glass to EN12600, glass to EN356 attack resistance standard P1A and low emissivity coating with overall U value of 1.1W/(m²K), as well as fire rated EW30 glass for fire resistance and to prevent heat radiation. The units have been tested as part of overall full-scale primary tests for the doorset design.

Address: 1 Longford Court, Belle Vue Estate, Hendon, London NW4 2BU
Date of Certificate of Conformity: 02/10/20 LOFSH001
Customer: Vallectric Ltd SHR 30 m


1Q-Mark Fire Door Installation Scheme

Exova BMTRADA

Installation Activities Form
Certificate number: 1132
Approved Installer's name: Florin Guzganu
Approved Installer's number: 901
Site Address: 1 Longford
Date of Issue: 19/01/2021
Declaration
I declare that the work undertaken fully complies with the requirements of the Q-Mark Fire Door Installation scheme and that the work undertaken complies with Regulation 4 and 7 of the Building Regulations for England and Wales or in accordance with the local regulations in force at the specific job site location.
Signature: F. Guzganu
Information of the installed fire door products

Door Ref	Certificate Number	Location of Installed Door	Intended Fire Resistance Period	Date/Delivery Date	Installed By	Certified Glazed	Location Plan/Detail Fitted	Installation Guidance Used	Comments
LOFSH001	1044	Ground floor	FD30S	14/12/2020	Doru Calin	Yes	Yes	Yes	

Door Ref	Photo 1	Photo 2	Photo 3	Photo 4	Photo 5	Photo 6	Photo 7	Photo 8
LOFSH001								

SHEVTEC® 140° Opening Roof Vent
Model Number: SHEVTEC® 140° Opening Roof Vent

Details
SHEVTEC® 140° Opening Roof Vent

Features
SE Controls SHEVTEC® 140° opening roof vent can be used in the head of the smoke shaft or escape stair to extract smoke from common corridors, escape stairs or lobbies to ensure safe escape for the occupants and to create a smoke free area for access to fire fighters. EN12101-2 requires that a single leaf opening roof vent should open to at least 140° to reduce the chance of a negative discharge occurring due to wind pressure.

Manufacturer Details
SE Controls
Lancaster House Wellington Crescent, Fradley
Lichfield
Staffs
WS13 8RZ

Tel: 01543 443060

Web: https://www.secontrols.com/en-gb/
Email: INFO@SECONTROLS.COM

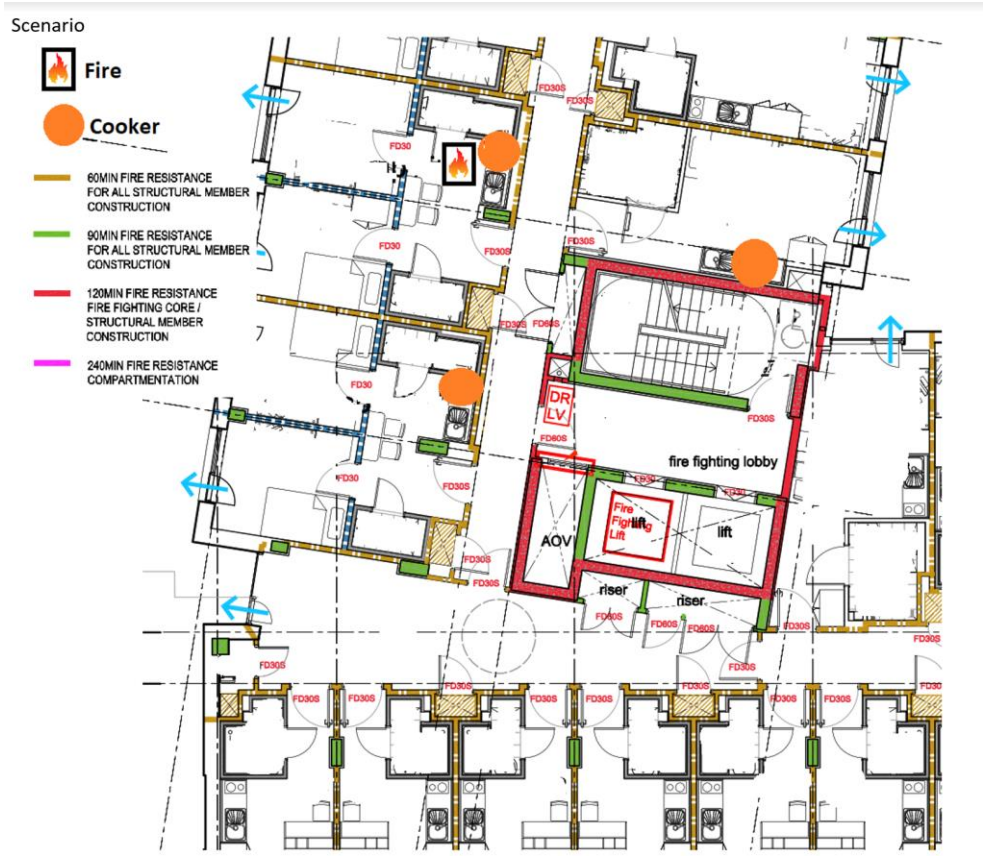
Primary Properties
Category:
Pr_30_59_58_80 : Smoke control roof ventilators

Size:
140° opening roof vent (For further information regarding specification detail please contact an SE Controls representative).
Expected Life: 10 Year
Colour: White
Finish: White
Grade: undefined
Materials: Material not stated

Performance:

The Context

Procurement form - Design and Build



Compartmentation
Cavity Barrier
Fire Door Closer, lock & hinges
Fire Wall
Penetration seals
Dampers
Fire Curtain

Smoke control
Dampers
AOV

Detection
Sensors
Alarms

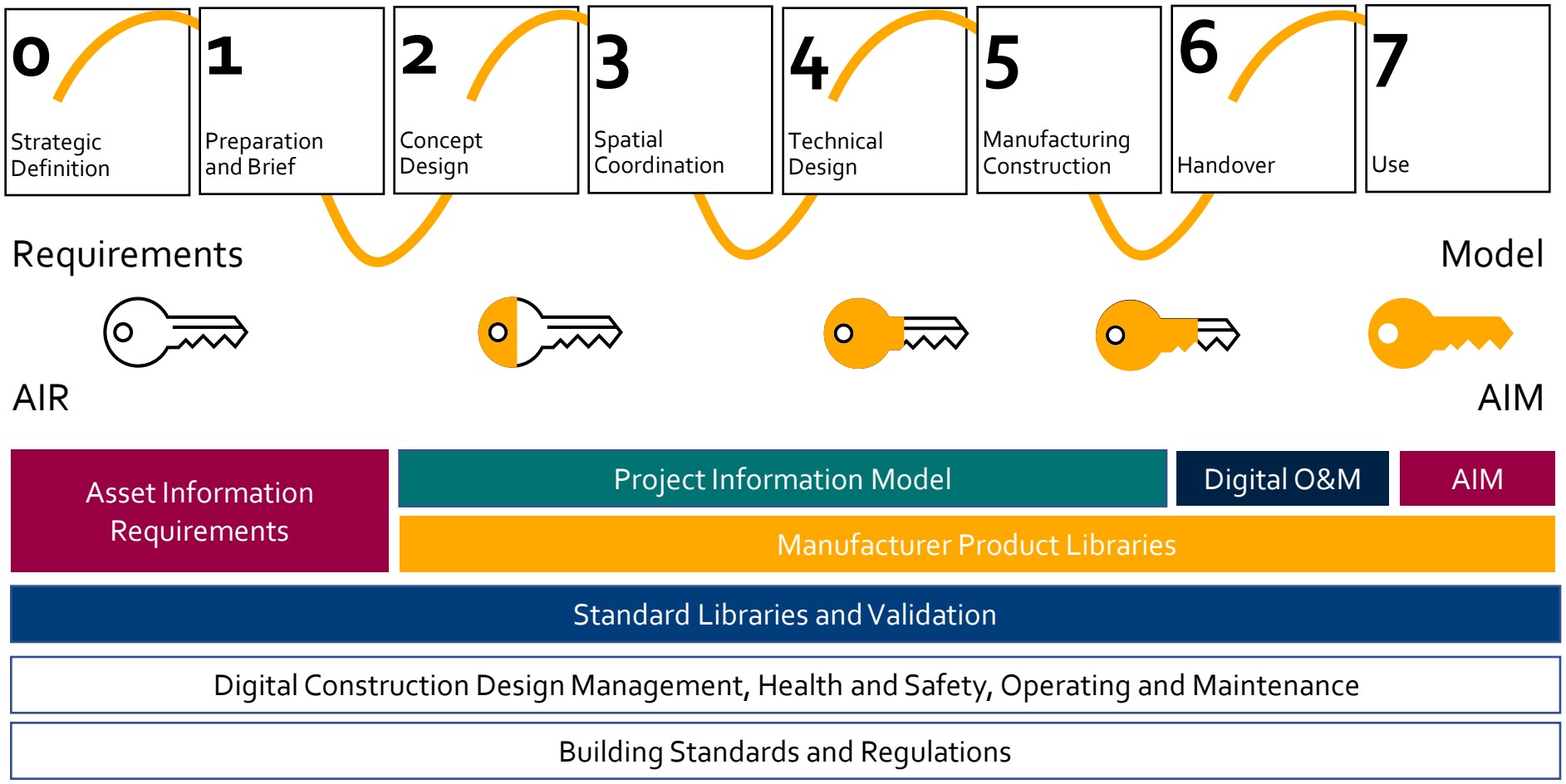
Fire safety assets

Compartmentation (i.e. location of fire-separating elements).	Emergency communications systems
Cavity barriers.	CCTV.
Fire doorsets, including self-closing devices and relevant hardware	Fire safety signage.
Duct dampers.	Emergency lighting.
Fire shutters.	Fire extinguishers.
Fire & smoke detector heads.	Dry or wet fire mains and other firefighting equipment.
Alarm call points.	Location of hydrants outside the building.
Detection/alarm control boxes.	Sprinkler system(s), inc isolating valves and control equipment.
Alarm sounders.	Smoke control system(s)

Safety critical assets?

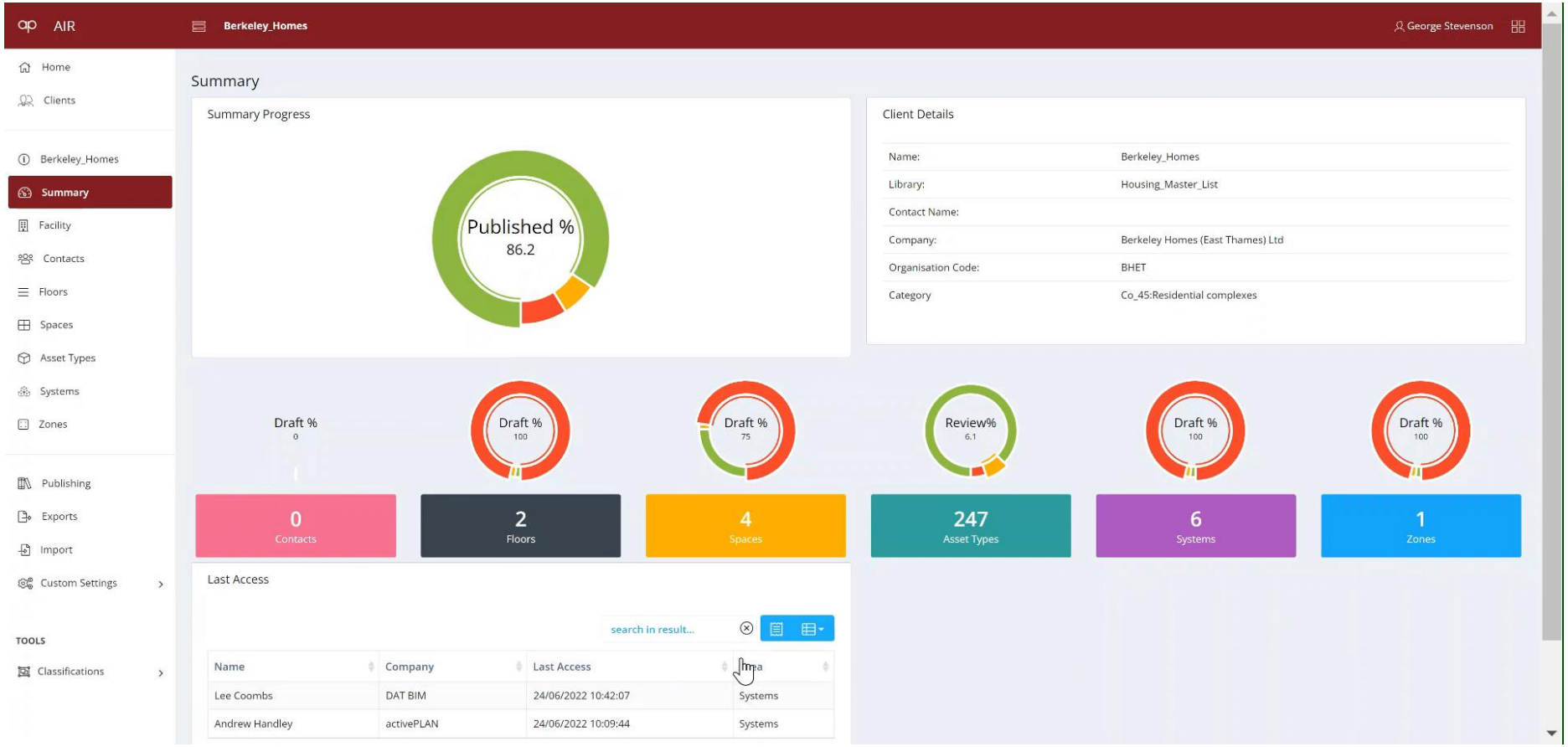
PRECAST NORMAL/LIGHTWEIGHT/AUTOCLAVED AERATED CONCRETE PRODUCTS.	MASONRY AND RELATED PRODUCTS. MASONRY UNITS, MORTARS, AND ANCILLARIES.
DOORS, WINDOWS, SHUTTERS, GATES AND RELATED BUILDING HARDWARE.	WASTE WATER ENGINEERING PRODUCTS.
MEMBRANES, INCLUDING LIQUID APPLIED AND KITS (FOR WATER AND/OR WATER VAPOUR CONTROL).	FLOORINGS.
THERMAL INSULATION PRODUCTS.	STRUCTURAL METALLIC PRODUCTS AND ANCILLARIES.
COMPOSITE INSULATING KITS/SYSTEMS.	INTERNAL & EXTERNAL WALL AND CEILING FINISHES. INTERNAL PARTITION KITS.
STRUCTURAL BEARINGS.	ROOF COVERINGS, ROOF LIGHTS, ROOF WINDOWS, AND ANCILLARY PRODUCTS. ROOF KITS.
PINS FOR STRUCTURAL JOINTS.	ROAD CONSTRUCTION PRODUCTS.
CHIMNEYS, FLUES AND SPECIFIC PRODUCTS.	AGGREGATES.
GYPSUM PRODUCTS.	CONSTRUCTION ADHESIVES.
GEOTEXTILES, GEOMEMBRANES, AND RELATED PRODUCTS.	PRODUCTS RELATED TO CONCRETE, MORTAR AND GROUT.
CURTAIN WALLING/CLADDING/STRUCTURAL SEALANT GLAZING.	SPACE HEATING APPLIANCES.
FIXED FIRE FIGHTING EQUIPMENT (FIRE ALARM/DETECTION, FIXED FIREFIGHTING, FIRE AND SMOKE	PIPES-TANKS AND ANCILLARIES NOT IN CONTACT WITH WATER INTENDED FOR HUMAN CONSUMPTION
CONTROL AND EXPLOSION SUPPRESSION PRODUCT).	CONSTRUCTION PRODUCTS IN CONTACT WITH WATER INTENDED FOR HUMAN CONSUMPTION.
SANITARY APPLIANCES.	FLAT GLASS, PROFILED GLASS AND GLASS BLOCK PRODUCTS.
CIRCULATION FIXTURES: ROAD EQUIPMENT.	POWER, CONTROL AND COMMUNICATION CABLES.
STRUCTURAL TIMBER PRODUCTS/ELEMENTS AND ANCILLARIES.	SEALANTS FOR JOINTS.
WOOD BASED PANELS AND ELEMENTS.	FIXINGS.
CEMENT, BUILDING LIMES AND OTHER HYDRAULIC BINDERS.	BUILDING KITS, UNITS, AND PREFABRICATED ELEMENTS.
REINFORCING AND PRESTRESSING STEEL FOR CONCRETE (AND ANCILLARIES). POST TENSIONING KITS.	FIRE STOPPING, FIRE SEALING AND FIRE PROTECTIVE PRODUCTS. FIRE RETARDANT PRODUCTS.

Golden Thread Process



Asset Info Requirements – New Build

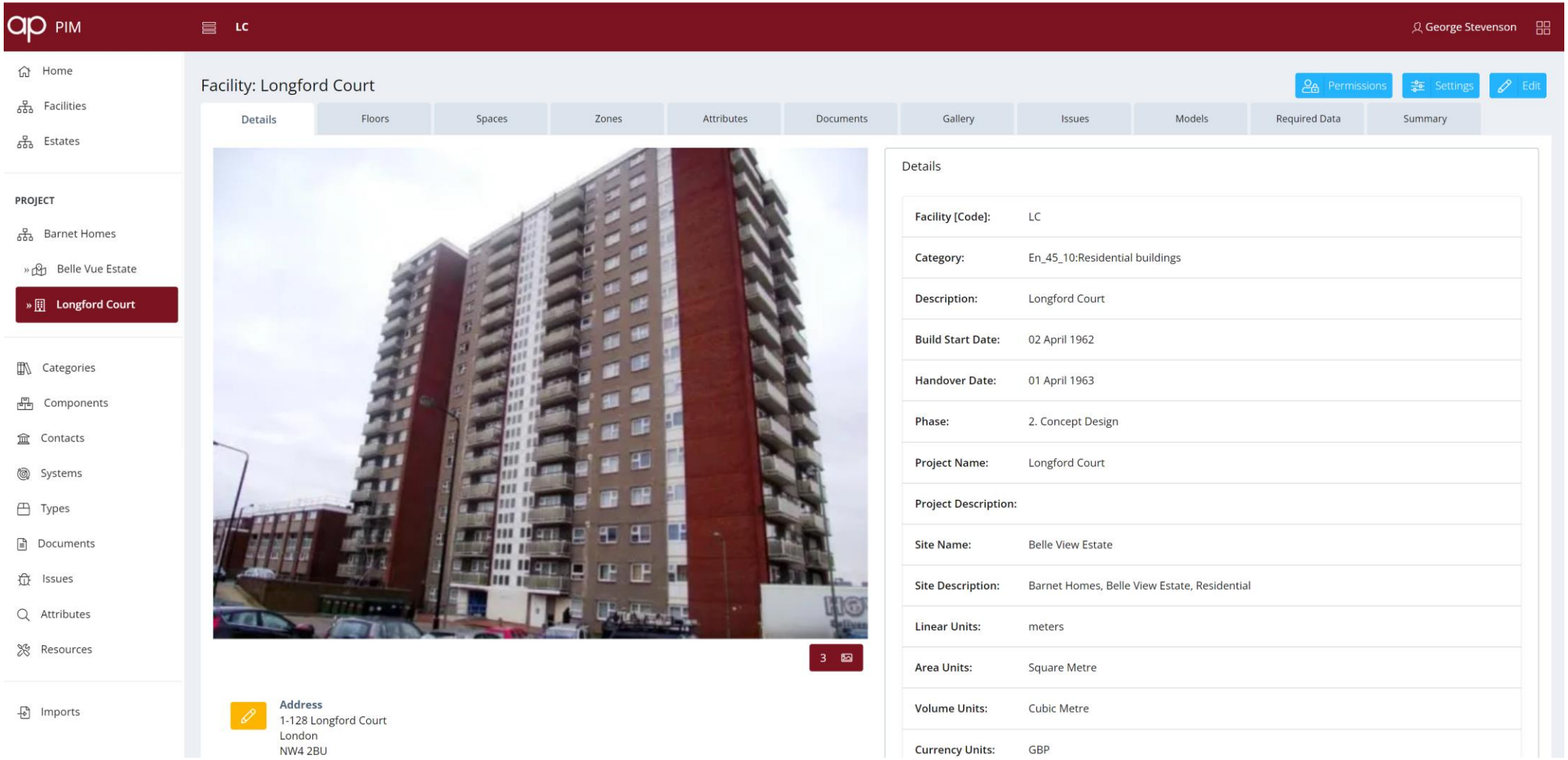
Requirements specification and procurement



Asset Data Collection – New Build

Requirements specification and procurement

Longford Court - Asset Information Model



Simple digital twin - information in different systems

URBAN CHANGE

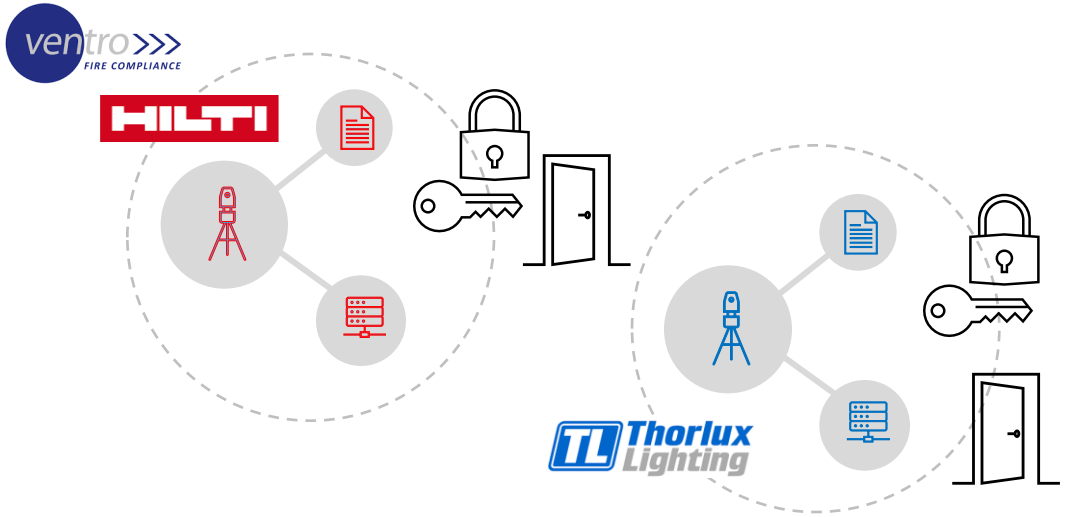
oakleaf
market leading surveys for estates professionals

FIRE RISK ASSESSMENT

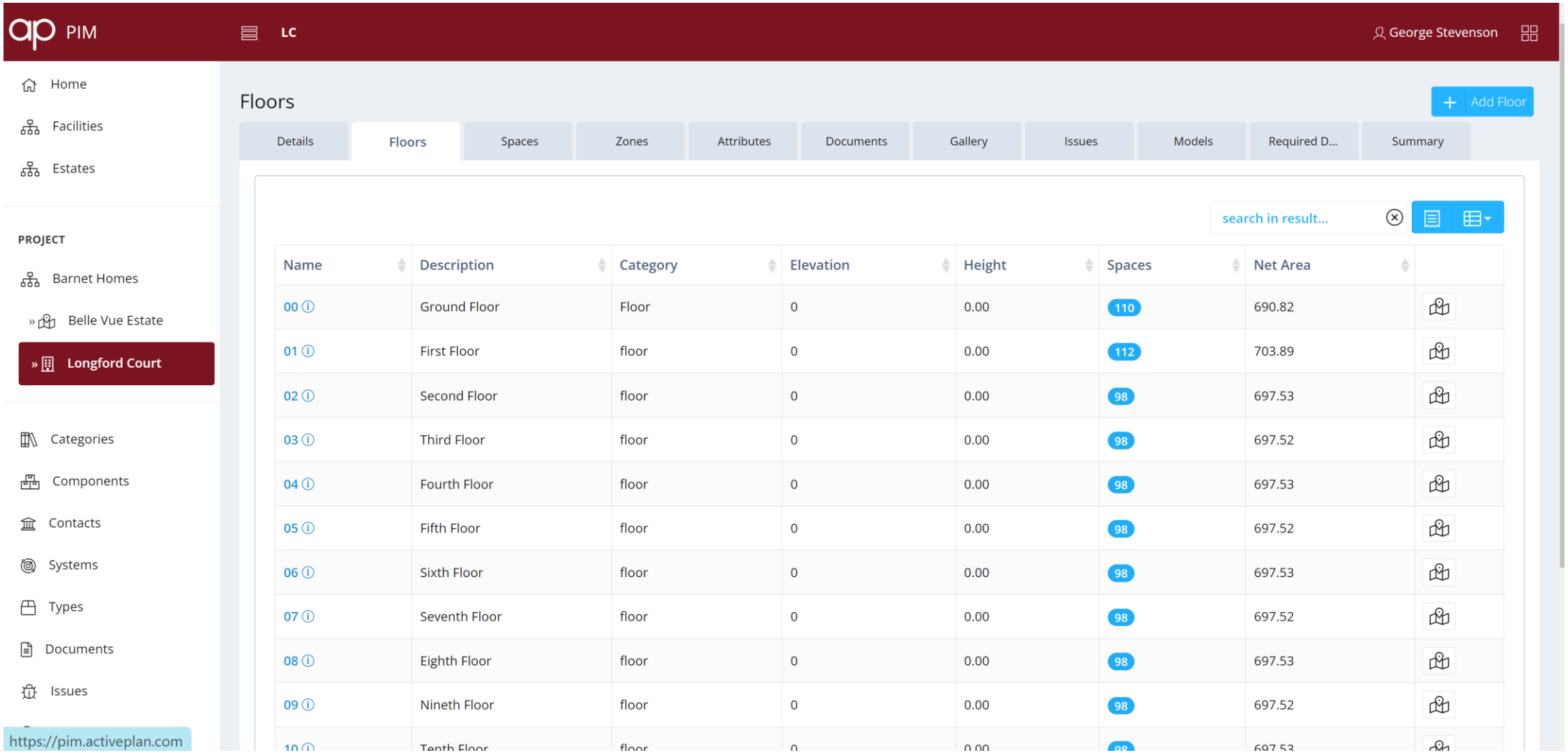
RiskBase

Tetra

Safety Case Report

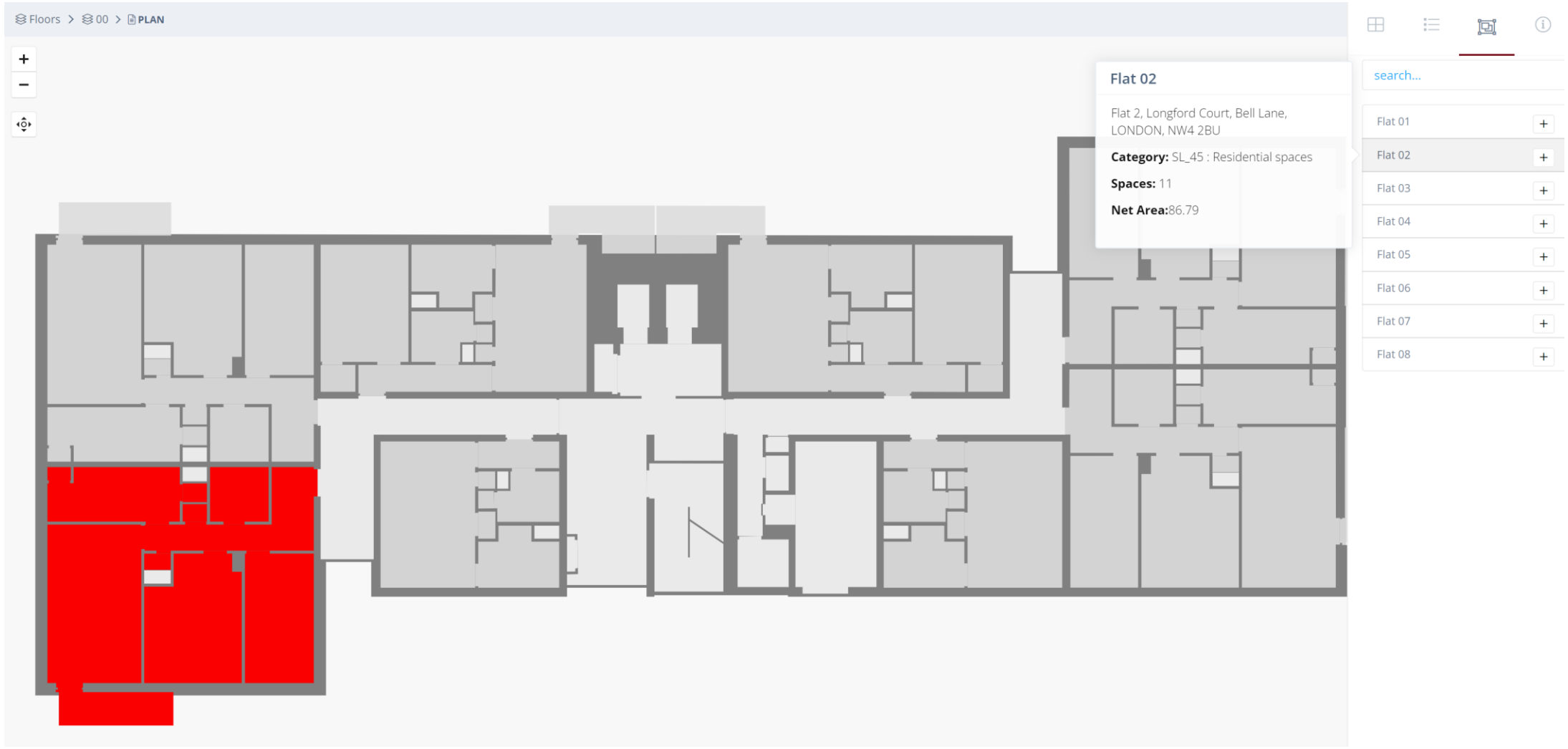


Spatial model of each floor



“Intelligent” spaces (or data containers)

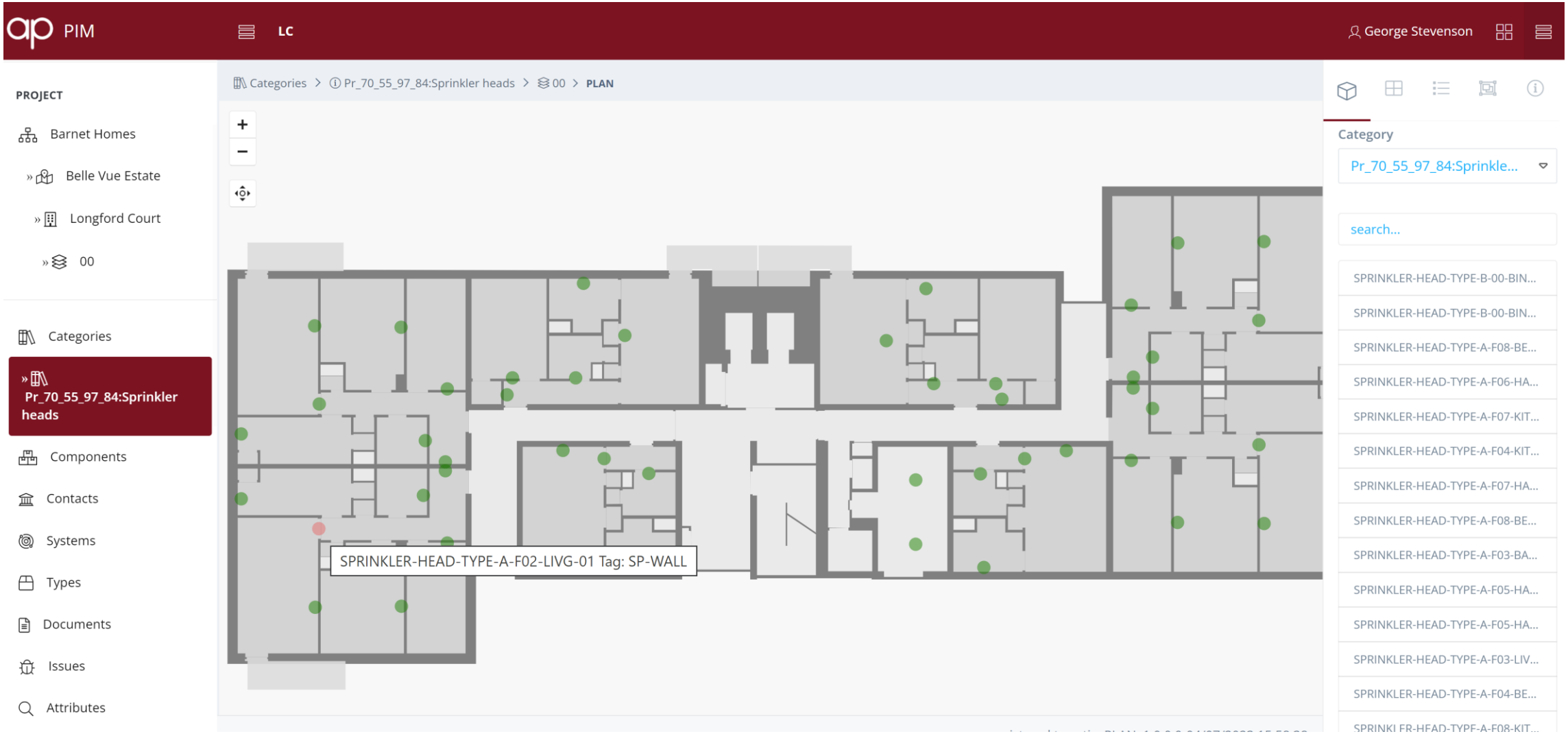
Apartment-level grouping of spaces



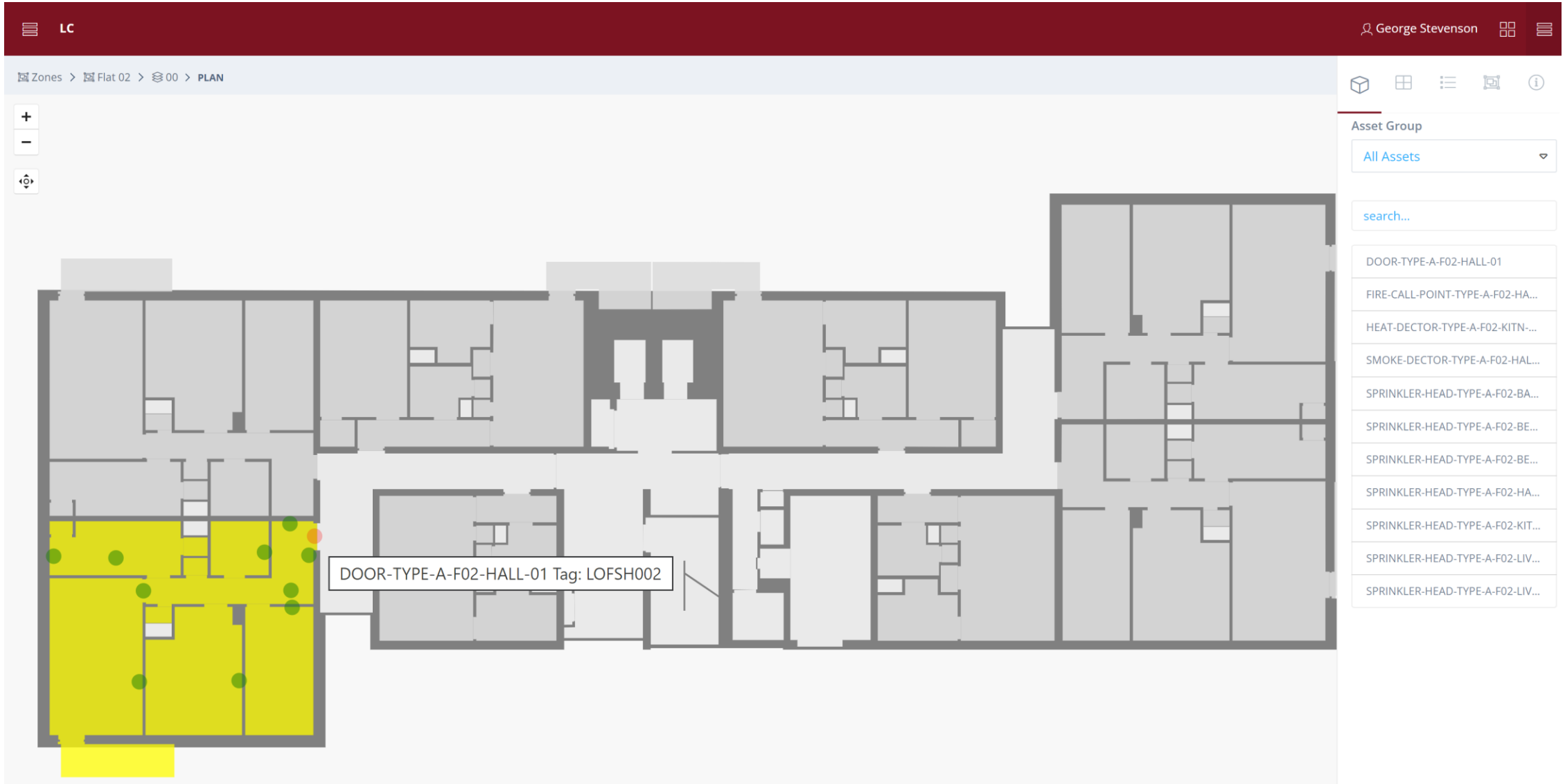
Location of key asset types in the whole block

Code	Description	Types	Components	
EF_25_10	Walls	3	26	
Pr_25_80_81	Smoke and fire-stopping	1	48	
Pr_25_80_81_51	Mineral wool fire-stopping	1	0	
Pr_30_31_76_40	Intumescent firestop sealants	1	0	
Pr_30_59_24	Doorsets	16	25	
Pr_40_10_57_45	Internally illuminated emergency exit signs	1	6	
Pr_40_10_90_07	Beacons	1	1	
Pr_70_55_97_84	Sprinkler heads	3	48	
Pr_75_80_30	Fire detection and alarm devices and control equipment	4	9	
Pr_75_80_30_13	Carbon monoxide and heat multi-sensor detectors	1	8	
Pr_75_80_30_29	Fire alarm panels	1	2	

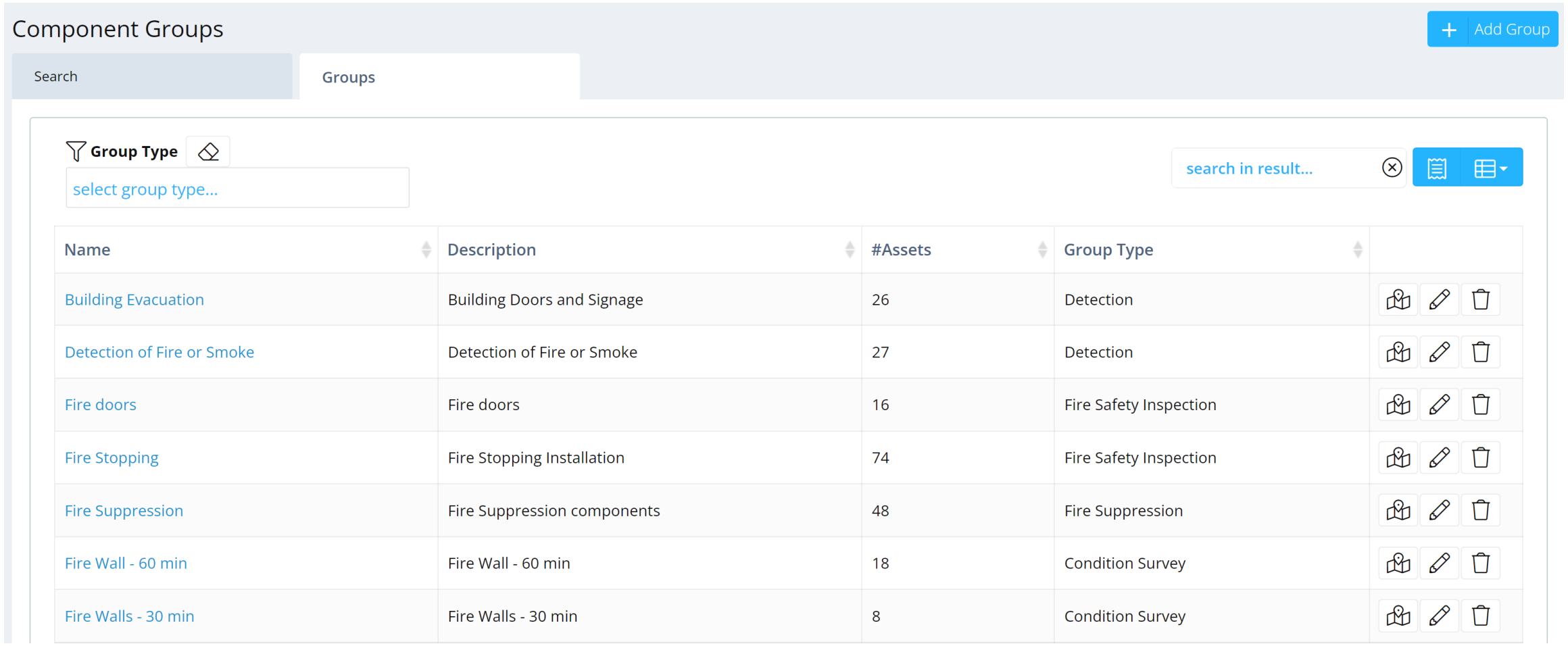
Key asset types' location on a floor



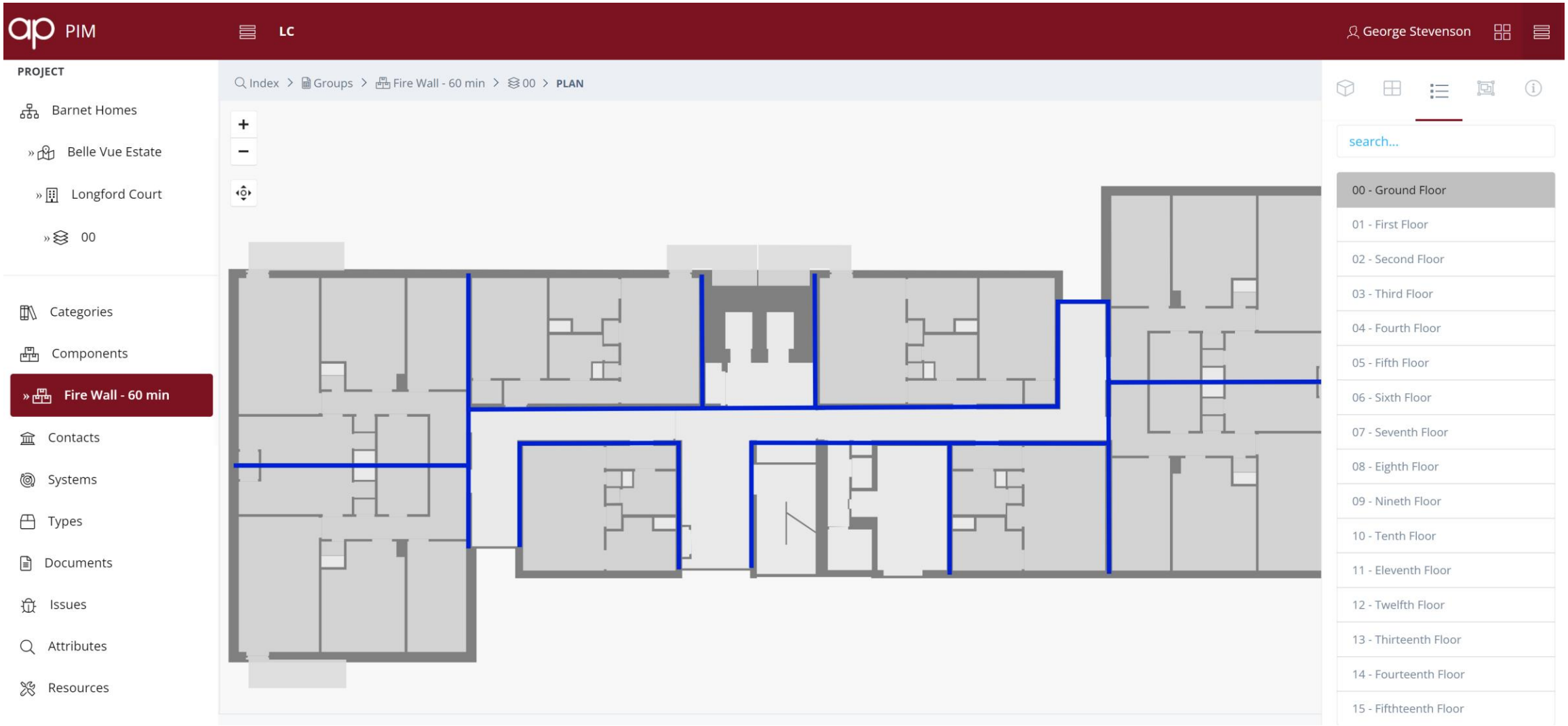
Key asset types' location in each space in an apartment



Grouping of components to support decisions



Which walls protect fire compartments?



Company: ATE Fire Protection Limited
Location: Fire Stopping Report / Ged Old / Val & Jack New / Geds Calender / 2019-2020 Cal

0018:31 - History 1 of 1 (latest)

Pin Photos
1 of 2

Pin Photos
2 of 2

Pin Number:	0018:31
Date Added:	07/08/2020 - 10:45
Contractor:	31 - Val Malitchi
Status:	Installed
Rating:	FR
FR:	60
Item Type:	Hole, Pipe x 2
Installation Type:	FSI Pyrocoustic Mastic, FSI Stopseal Fire Batt
Width:	1
Height:	.5
Comments:	

X2 Level 13 plot 106

Which other assets protect fire compartments?

Our digital record includes information from the contractor

Component: FIRE-STOPPING-01-F02-RISER-02

Edit

Details | Assemblies | Attributes | Documents | Gallery | Issues

Component Photograph

Type Photograph

Type	FIRE-STOPPING-01
Category :	Pr_25_80_81 : Smoke and fire-stopping
Model Number :	PYROCOUSTIC® SEALANT and STOPSEAL® BATT
Model Reference :	
Manufacturer :	FSi (info@fsiltd.com)
Asset Type :	Fixed
Description	Fire Stopping
Warranty Description Warranty Details	Default Warranty 1 Year

Which products/materials were used?

Type: FIRE-STOPPING-01

Edit | Products | Word

Details | Assembl... | Attributes | Compon... | Docume... | Gallery | Impacts | Issues | Job | Manufac... | Plan | Require... | Spares | Warranty

Type Photograph

Photographs 1

Name:	FIRE-STOPPING-01
Requirement:	Default Asset Type
Stages:	[6] Handover & Close Out — 87 %
Is Product Library :	True
Category :	Pr_25_80_81 : Smoke and fire-stopping
Model Number :	PYROCOUSTIC® SEALANT and STOPSEAL® BATT
Model Reference :	
Manufacturer :	FSi
Asset Type :	Fixed

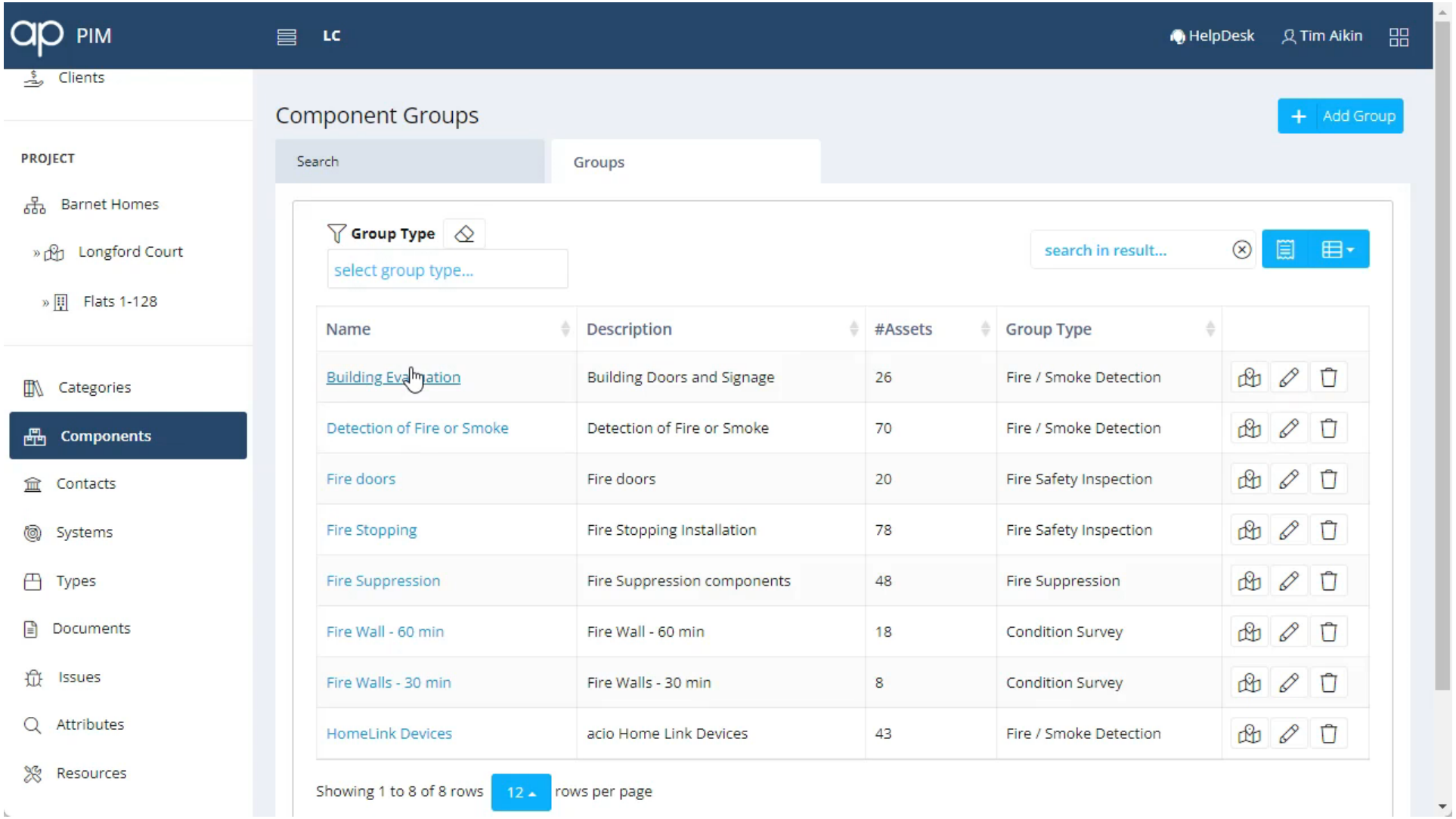
Details

Expected Life:	30 Year's
Replacement Cost:	
Shape:	
Descriptive Size:	
Nominal Sizes	
Length: **Width:** **Height:**	
Colour:	
Finish:	
Grade:	
Constituents:	

Activeplan (simple) Digital Twin

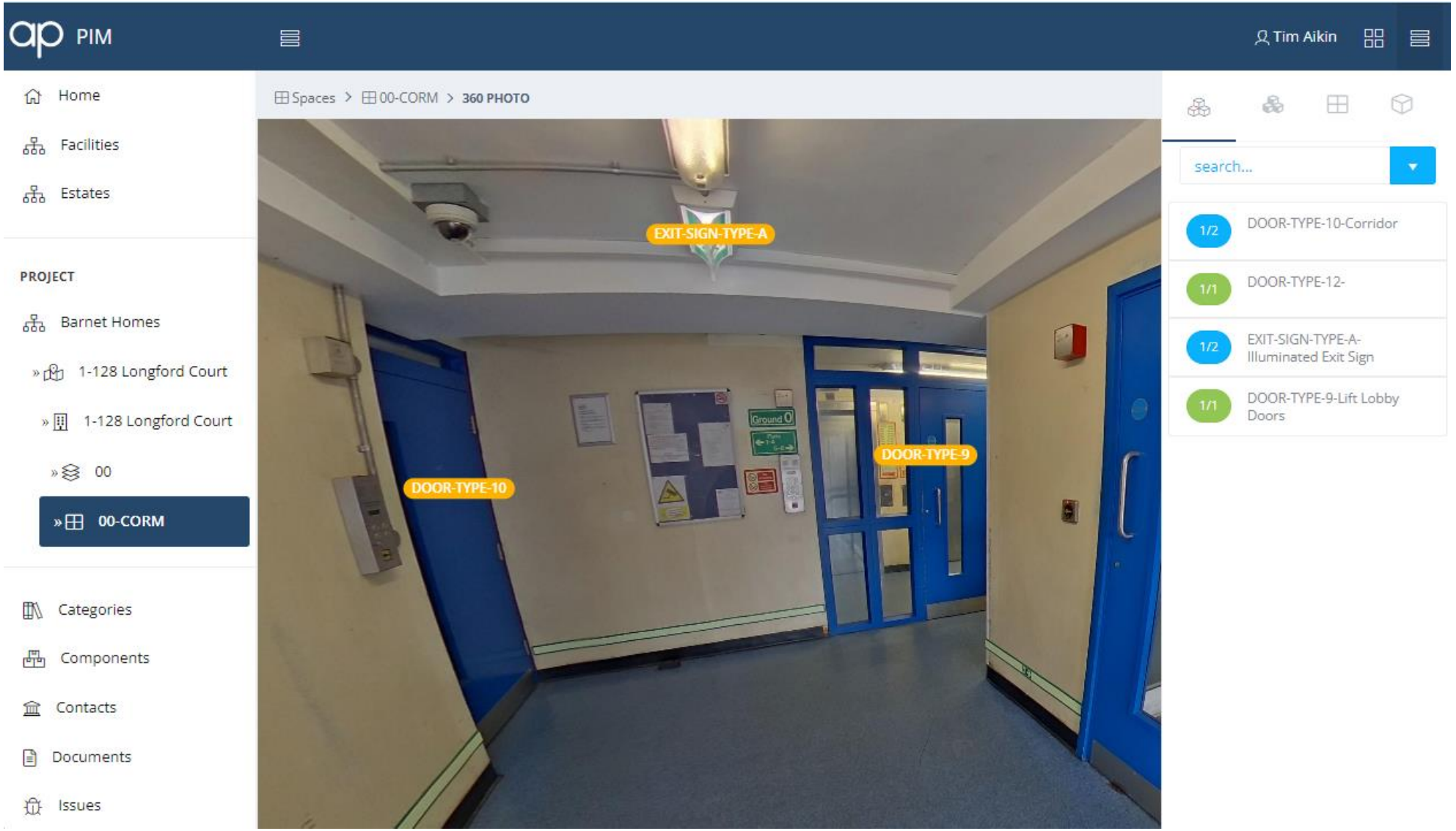
ventro FIRE COMPLIANCE

Door Inspections

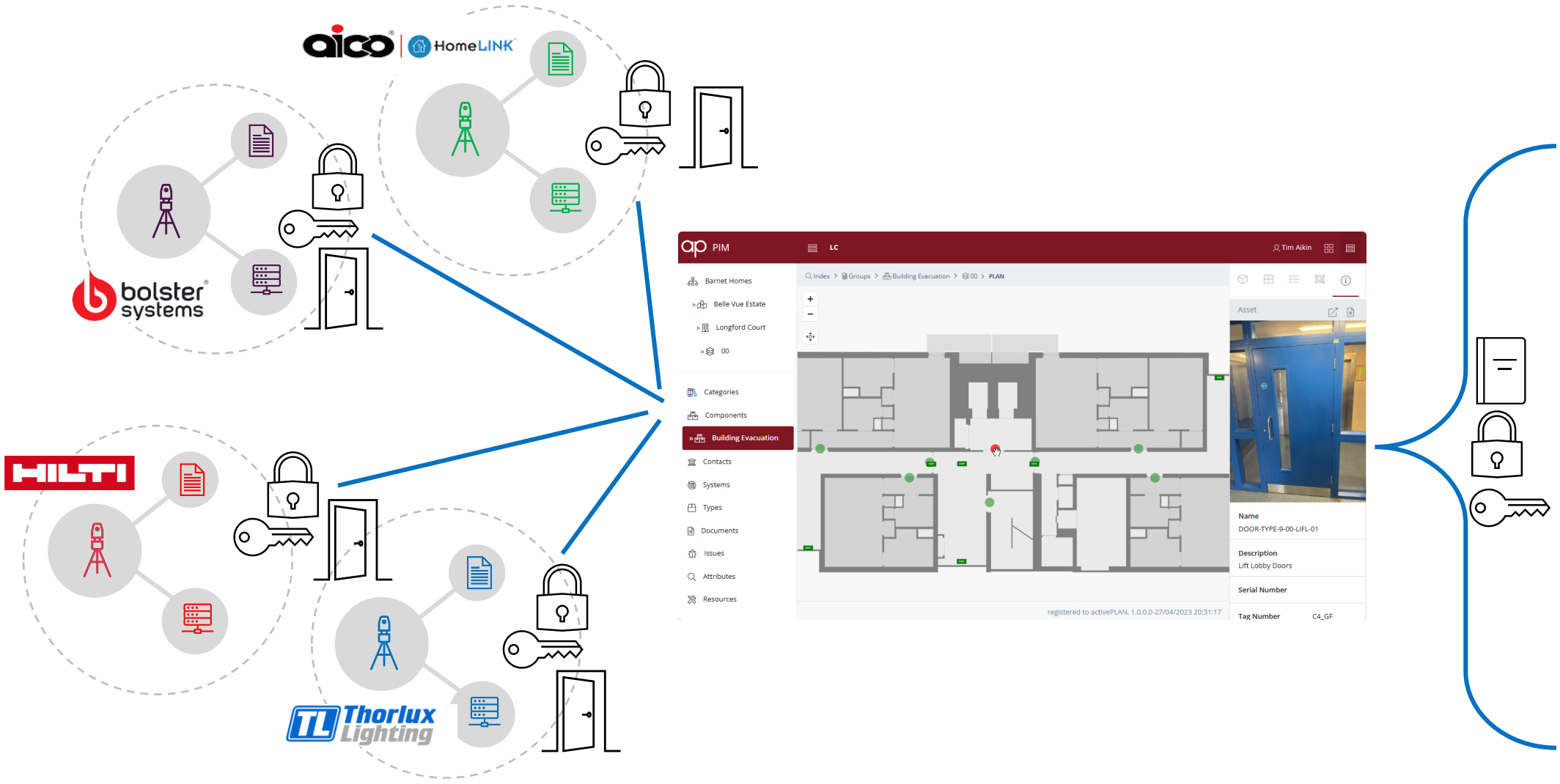


Verifying assets

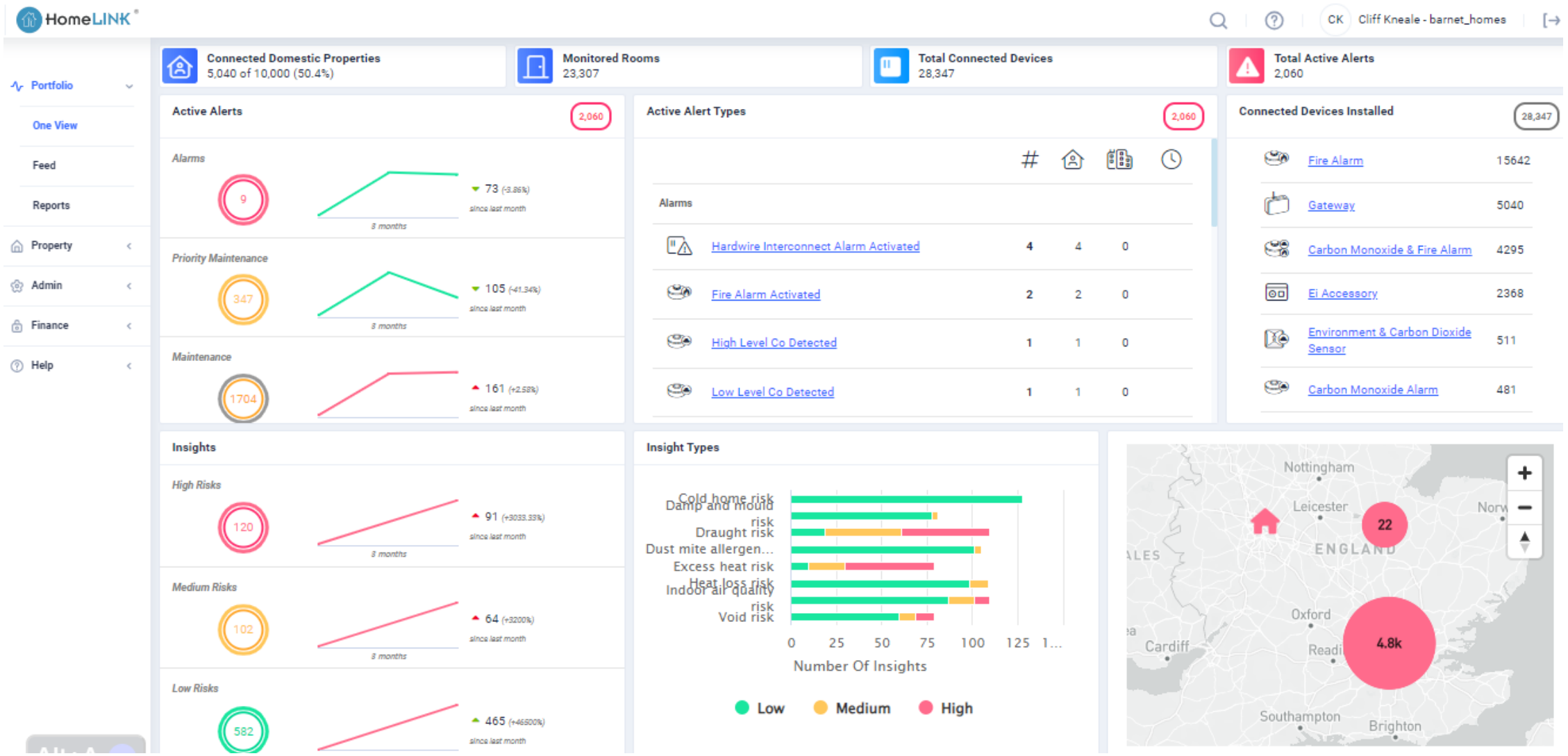
Creating asset lists



Integrations for viewing information held remotely

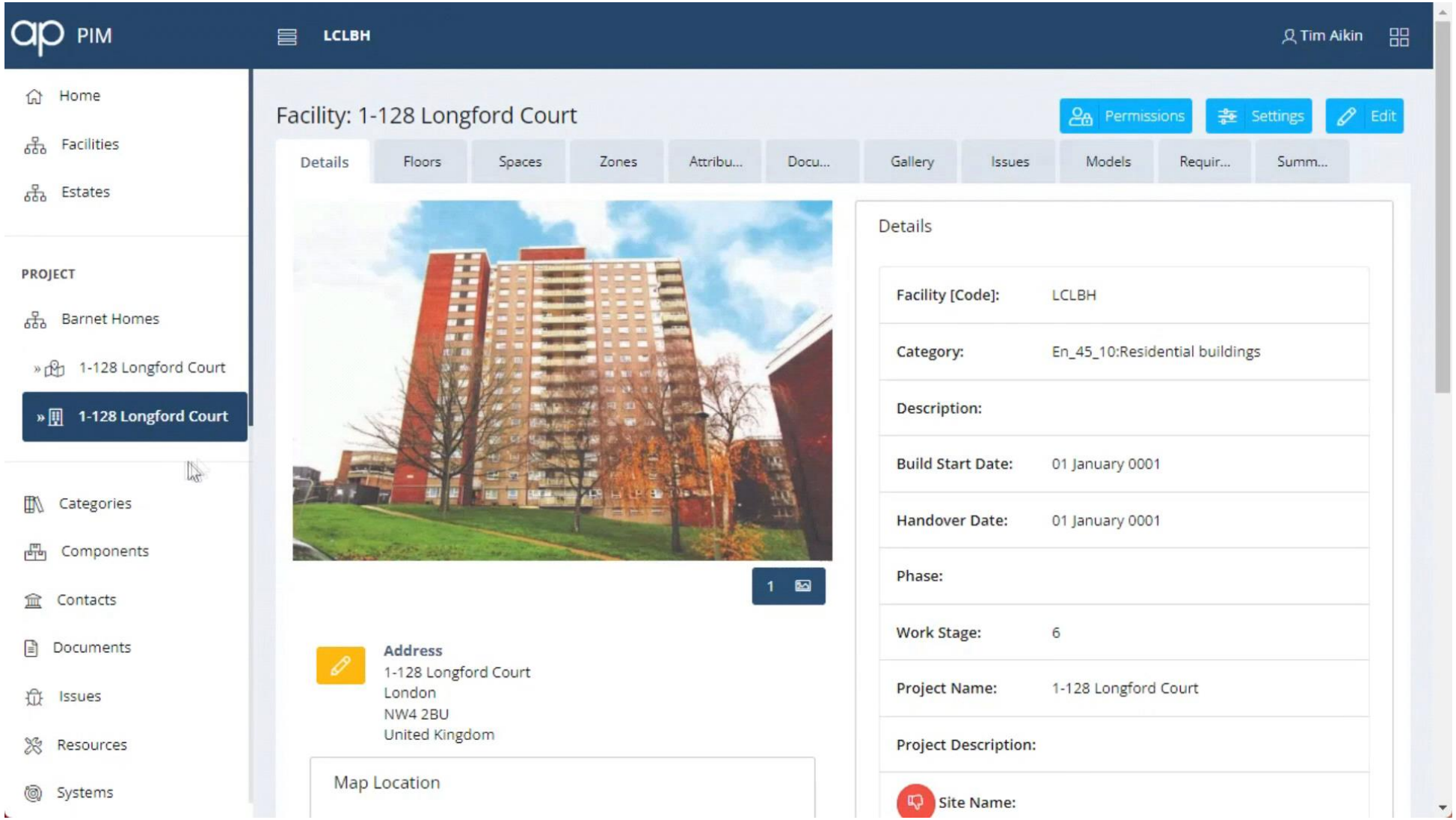


AICO Homelink dashboard – entire estate

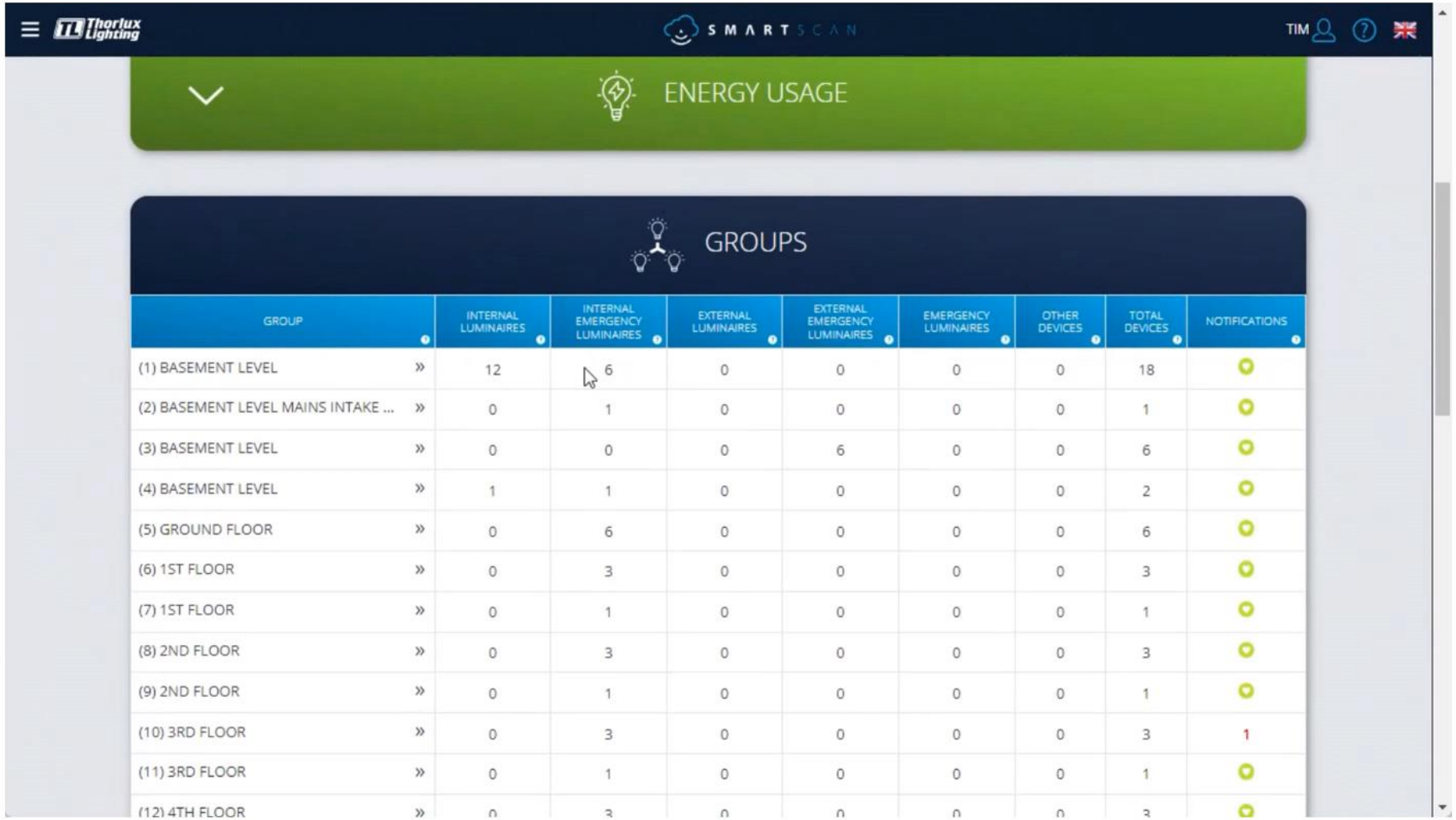


Activeplan (simple) Digital Twin

Smoke and air quality sensors



Thorlux Smart Scan – Emergency lighting



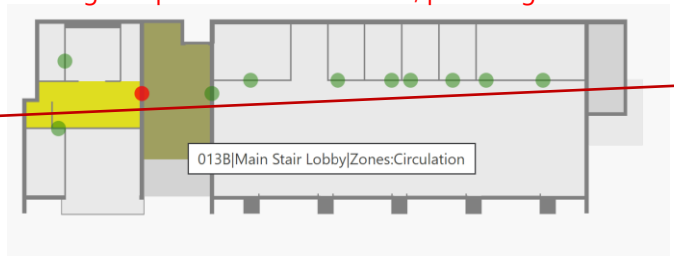
GROUP	INTERNAL LUMINAIRES	INTERNAL EMERGENCY LUMINAIRES	EXTERNAL LUMINAIRES	EXTERNAL EMERGENCY LUMINAIRES	EMERGENCY LUMINAIRES	OTHER DEVICES	TOTAL DEVICES	NOTIFICATIONS
(1) BASEMENT LEVEL »	12	6	0	0	0	0	18	
(2) BASEMENT LEVEL MAINS INTAKE ... »	0	1	0	0	0	0	1	
(3) BASEMENT LEVEL »	0	0	0	6	0	0	6	
(4) BASEMENT LEVEL »	1	1	0	0	0	0	2	
(5) GROUND FLOOR »	0	6	0	0	0	0	6	
(6) 1ST FLOOR »	0	3	0	0	0	0	3	
(7) 1ST FLOOR »	0	1	0	0	0	0	1	
(8) 2ND FLOOR »	0	3	0	0	0	0	3	
(9) 2ND FLOOR »	0	1	0	0	0	0	1	
(10) 3RD FLOOR »	0	3	0	0	0	0	3	1
(11) 3RD FLOOR »	0	1	0	0	0	0	1	
(12) 4TH FLOOR »	0	3	0	0	0	0	3	

Federated Golden Threads

Asset tag

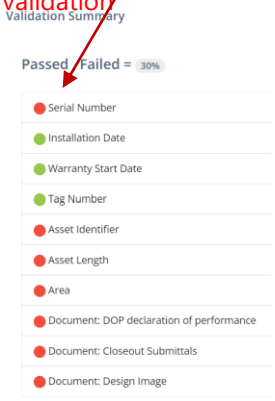
Spatial data model with intelligent assets

Intelligent spaces inc fire corridors, providing context of assets

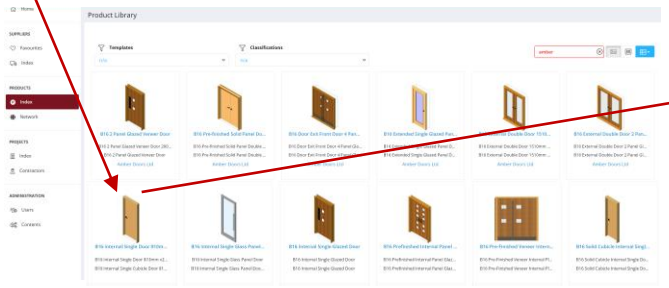


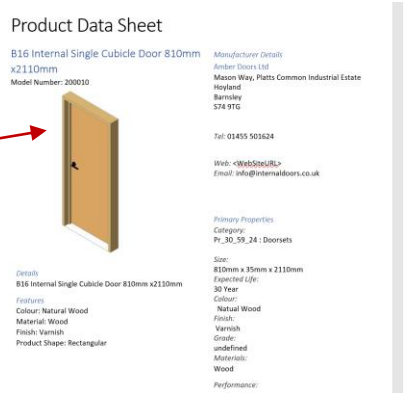
PlanRadar

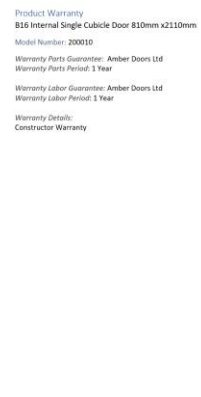
Automated data validation



Product Libraries







RiskBase

ventro FIRE COMPLIANCE

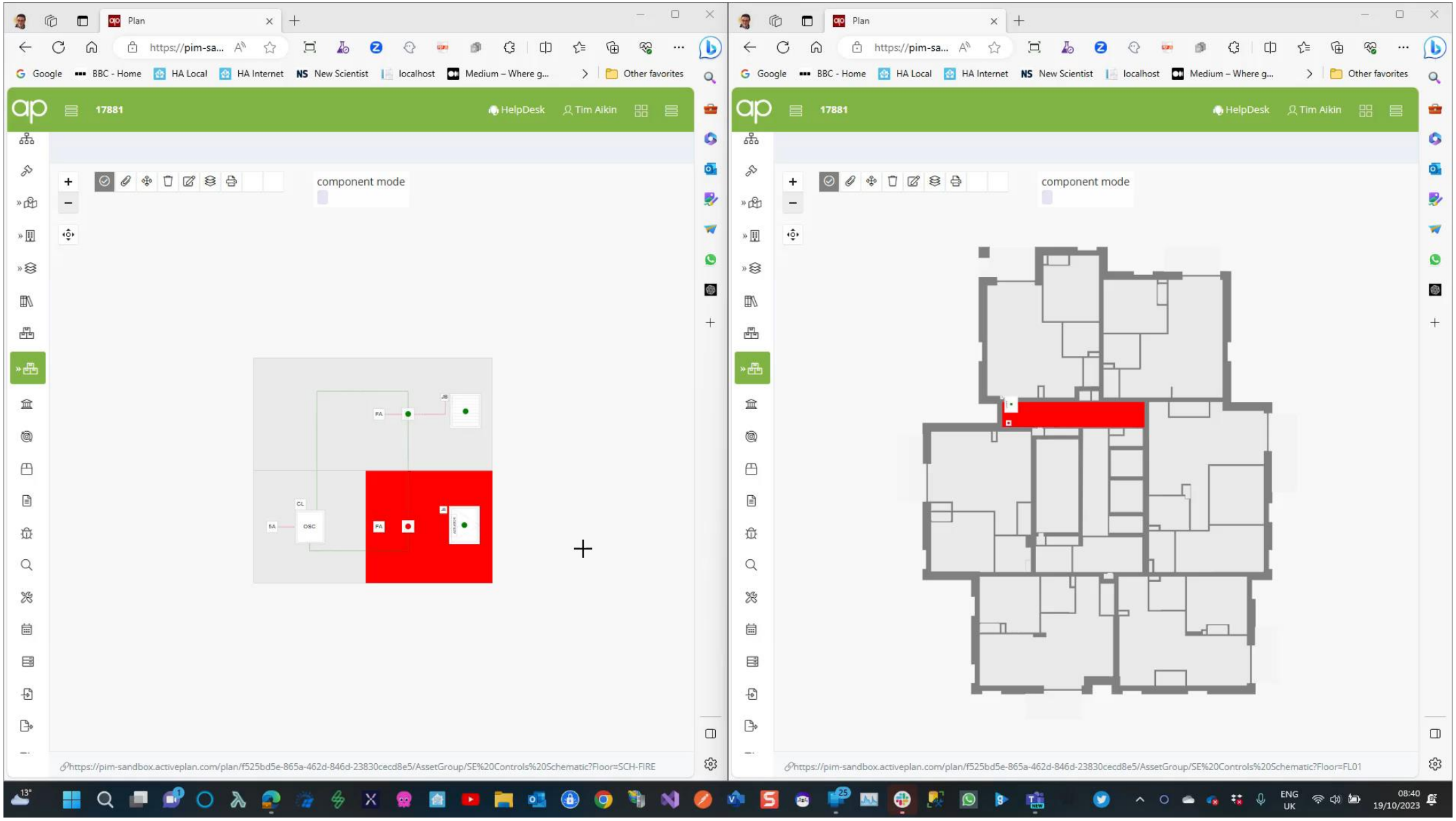
HILTI

CIVICA

Keystone

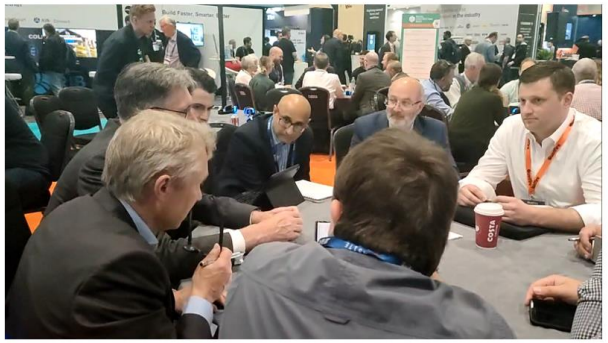
Cx

SE Controls – Smoke Vent sensors



BIM 4 HOUSING

1. How do we prevent incorrect design, selection, and installation of fire safety products?



Will Perkins	SE Controls
Jimmy Collins	Knauf
Roy Buckingham	Abloy UK
Craig Wells	Quelfire
Elliot Dawson	Distinction Doors
Stephen Gore	Swegon UK
Paul White	Ventilation Fire Smoke
Gordon Crick	HSE
Sam Sambasivan	LUL/BB7

2. How do we ensure continuity and relationship of asset safety information throughout asset lifetime?

Elliot Brown	The FDI
Chris Lucas	HSE
Andrew Sturgess	Aico
Ian Smith	Select Consultant
Ishka Heart	Network Homes
Alastair Brockett	Hilti
Niall O'Rourke	Ruark Consulting
Glen Jackson	Swan House
Ben Blackwood	Ballymore

3. How do we ensure that the Building Safety data is live – not an outdated snapshot in time?

Andrew Holley	Tower Hamlets Community Housing
Edward Coster	Clarion
Neville Tomblin	Southampton City Council
Adam Sanders	Risk Base
Simon Collery	Camden
Jenny Harris	Sanctuary
Ana Matic	Scott Brownrigg
Will Franks	Adelard (NCC)

4. How do we ensure that the incomplete Building Services Design does not impact Construction ?

Paul McSoley	Mace Group
Jarek Wityk	Winter Electrical
Scott Sanderson	PRP
George Stevenson	Activeplan
Dave Peacock	Operance
Mandeep Singh	Hydrock
Paul Oakley	ActivePlan