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Clarion Housing Creates Unified Asset Management System to Meet Strict New Regulatory Requirements

AssetWise® Helps Eliminate Data Silos and Manage 3D Building Models That Incorporate Detailed Asset Data

COMPLYING WITH STRINGENT NEW REGULATIONS

Clarion Housing is the United Kingdom's largest housing association, owning and managing 125,000 homes across the country. Managing such an extensive and geographically dispersed asset base presents numerous challenges for meeting safety requirements. For example, the data crucial to understanding a building's safety features is often held in siloed databases or even with third-party contractors, making it difficult to access when required.

Such an unstructured data strategy will no longer be sufficient to meet new regulatory requirements mandated by the Building Safety Act, which went into effect October 2023. The act, drafted in the wake of the Grenfell Tower fire that claimed 72 lives and highlighted the need for better building management, creates a new safety regime for constructing and managing multitenant residential buildings. The act overhauls existing regulations, creates lasting change, and clarifies how residential buildings should be constructed, maintained, and made safe.

Designers, builders, and owners will be required to manage building safety risks with clear lines of responsibility during the design, construction, completion, and operation of all buildings. In addition, they will need to demonstrate that they have effective, proportionate measures in place at the higher-risk buildings for which they are responsible.

BREAKING OUT OF DATA SILOS

To meet the new requirements, the project team needed accurate data. The siloed, disparate platforms used by Clarion Housing and its contractors were not designed to enable the

constant access needed to comply with regulations, undertake detailed audits, and support the continued safety and quality of the association's portfolio. Building information now must be constantly upgradeable. For example, if the association installs new fire systems, they need to be able to track that information. "The social housing sector tends to wait for central guidance, but we like to be more proactive," said Dan Hollas, fire safety projects director at Clarion Housing. "Dame Judith Hackitt's interim report, [published] in December 2017, gave us a good steer on where things were going. Our biggest interest was the digital record and how this could shape our approach to asset management."

Therefore, to improve conditions for residents and comply with the new legislation, the association began the search for a system that allows them to create a digital built environment. After studying available options, the association discovered that there was no off-the-shelf solution that met their needs, requiring them to find a partner that could help create a bespoke data management platform.

CREATING A CUSTOMIZED SOLUTION

Clarion Housing created a new data platform that enabled them to comply with all regulations and eliminate data access problems. They used AssetWise as the basis of the platform because of its ability to provide detailed document and physical configuration management through the life of every asset. Next, they deployed the solution at 75 of Clarion Housing's high-rise properties.

To improve building assessment and monitoring, Clarion Housing is creating detailed digital representations of its assets. The process starts by undertaking laser scans to create 3D models. "AssetWise supports our desired workflow, allowing

each model to be populated with asset data, including more detailed information gathered from surveys," said Hollas. "Though much of that asset data was already stored in various systems, moving that data to each model breaks the information free from silos and creates an easily accessible single source of truth."

Using Bentley's connected data environment, the project team controlled the data and provided a single source of truth. Once each digital replica was created and populated, users can navigate through the visual representation of the building, click on a particular item, and find the pertinent information.
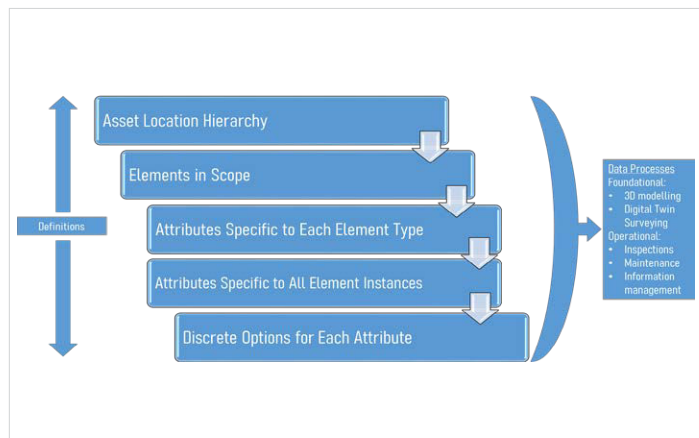
MOVING TO TRUE DIGITAL TWINS

Clarion Housing's new information management system unifies all asset information into a central, readily accessible web-based location. By eliminating silos and tying asset data into intuitive 3D representations

of each building, the system delivers accurate information to the right people at the right time, helping them make more informed decisions. Clarion Housing can now streamline the audit process, as all information will be up to date and supported by audit trails. As a result, Clarion Housing complies with the new regulations while minimizing the amount of time that is needed. "Our 3D modeling approach meets the requirement of the Hackitt Review to have a 'golden thread of information' for each high-rise residential block, and allows our team to tag significant asset data," said Hollas.

Currently, Clarion Housing is focused on moving asset information into their new management platform. Going forward, they want to use the platform to ensure that project development teams clearly understand the maintenance requirements of asset management teams. As a result, they are improving efficiencies throughout the entire lifecycle of each asset. Clarion Housing also plans to use the platform as the foundation for developing digital twins that can accept live information from Internet of Things devices.

Element ID	Estate	Shell Building	Core	Floor Level	Unit Type	Unit Number	Room Type	Room Number	Sub room space type
E00052BWIC01-XXXXXXXXXXXXXXXX-EW01	E00052	BWI	C01	XXX	X	XXX	XX	XX	XX
E00052BWIC01-XXXXXXXXXXXXXXXX-EW02	E00052	BWI	C01	XXX	X	XXX	XX	XX	XX
E00052BWIC01-XXXXXXXXXXXXXXXX-EW03	E00052	BWI	C01	XXX	X	XXX	XX	XX	XX
E00052BWIC01-XXXXXXXXXXXXXXXX-EW04	E00052	BWI	C01	XXX	X	XXX	XX	XX	XX
0052BWIC01-XXXXXXXXXXXLS Lift shaft01-LC	E00052	BWI	C01	XXX	X	XXX	XX	XX	LS Lift shaft
0052BWIC01-XXXXXXXXXXXLS Lift shaft02-LC	E00052	BWI	C01	XXX	X	XXX	XX	XX	LS Lift shaft
E00052BWIC01-XXXXXXXXXXBC01-XXXX	E00052	BWI	C01	XXX	X	XXX	XX	XX	BC
E00052BWIC01-LGRAXXXXXXXXXXX-LI01	E00052	BWI	C01	LGR	A	XXX	XX	XX	XX
E00052BWIC01-LGRAXXXXXXXXXXX-LI02	E00052	BWI	C01	LGR	A	XXX	XX	XX	XX
E00052BWIC01-LGRAXXXXXXXXXXX-LI03	E00052	BWI	C01	LGR	A	XXX	XX	XX	XX
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E00052BWIC01-LGRAXXXXXXXXXXX-LI12	E00052	BWI	C01	LGR	A	XXX	XX	XX	XX

Clarion Housing's new system incorporates 3D representations of assets embedded with asset information, delivering accurate information to improve decision-making.

Since all information is up to date and supported by audit trails, Clarion Housing will be able to streamline the audit process while complying with new regulations.