

# GeoConnect+ 2 years Research & Development

Connect project and asset information with geospatial data in a way that helps asset owners and operators manage large estates better.



# Agenda

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Introduction to GeoConnect+

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Research & Development - 2 years in the Making

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Thames Water

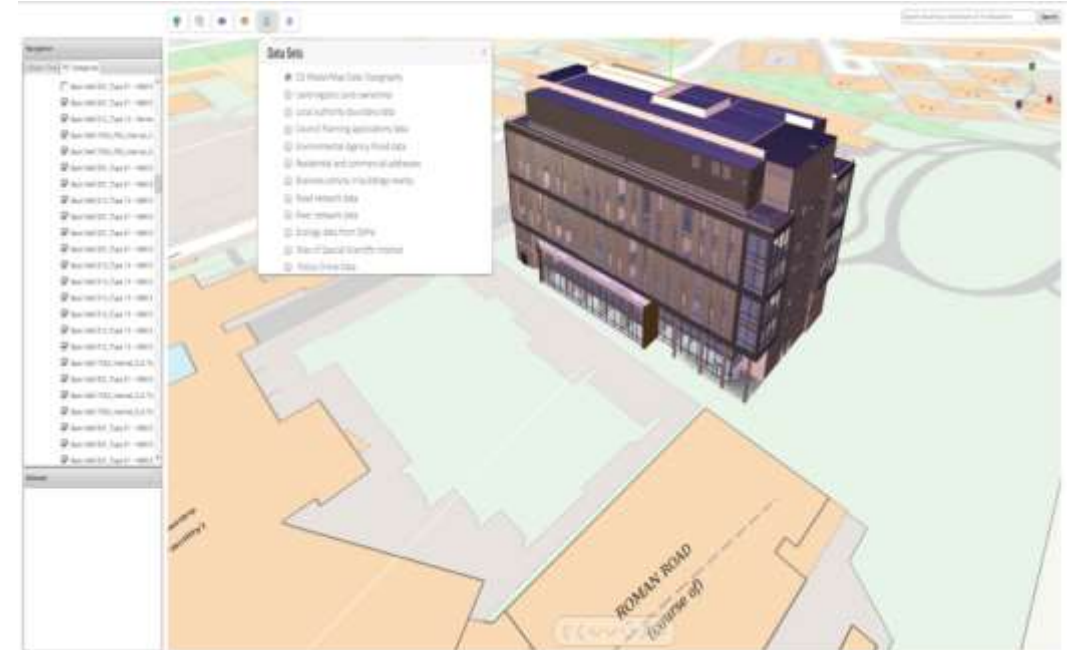
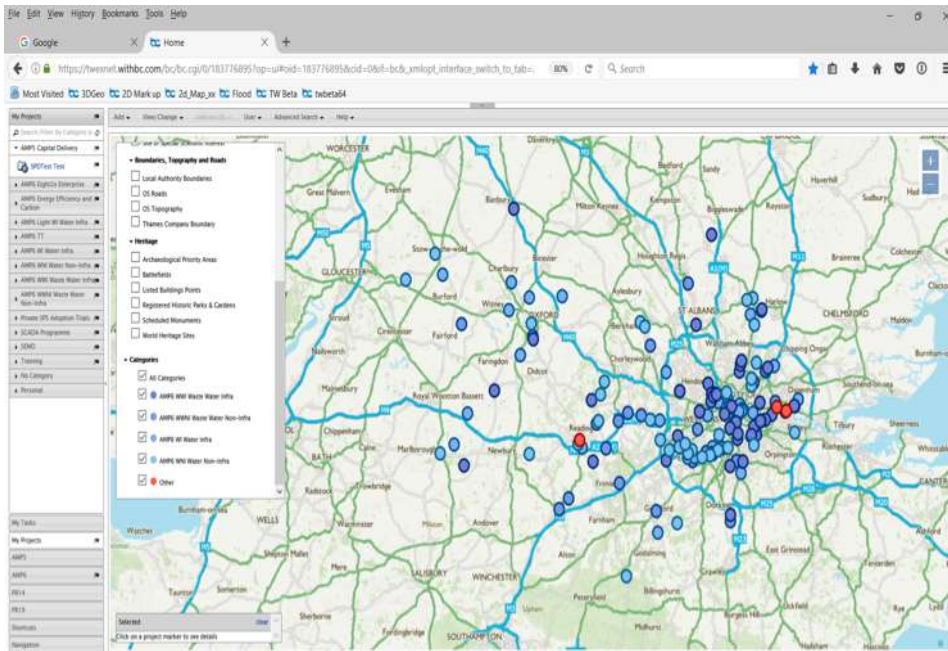
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Mackley

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Wienerberger

# What is GeoConnect+



## Geo Locate

- Project & Asset Information

## Geo Reference

- UPRN & TOID
- Longitude & Latitude
- Connect Data OS Data
- Connect in House GIS Data
- Connect Scan Data
- And more...

## Geo Access

- Access for Supply chain
- Browser + Internet

# Research Partners



Research brief provided by PCSG, specialist information management and BIM consultancy.



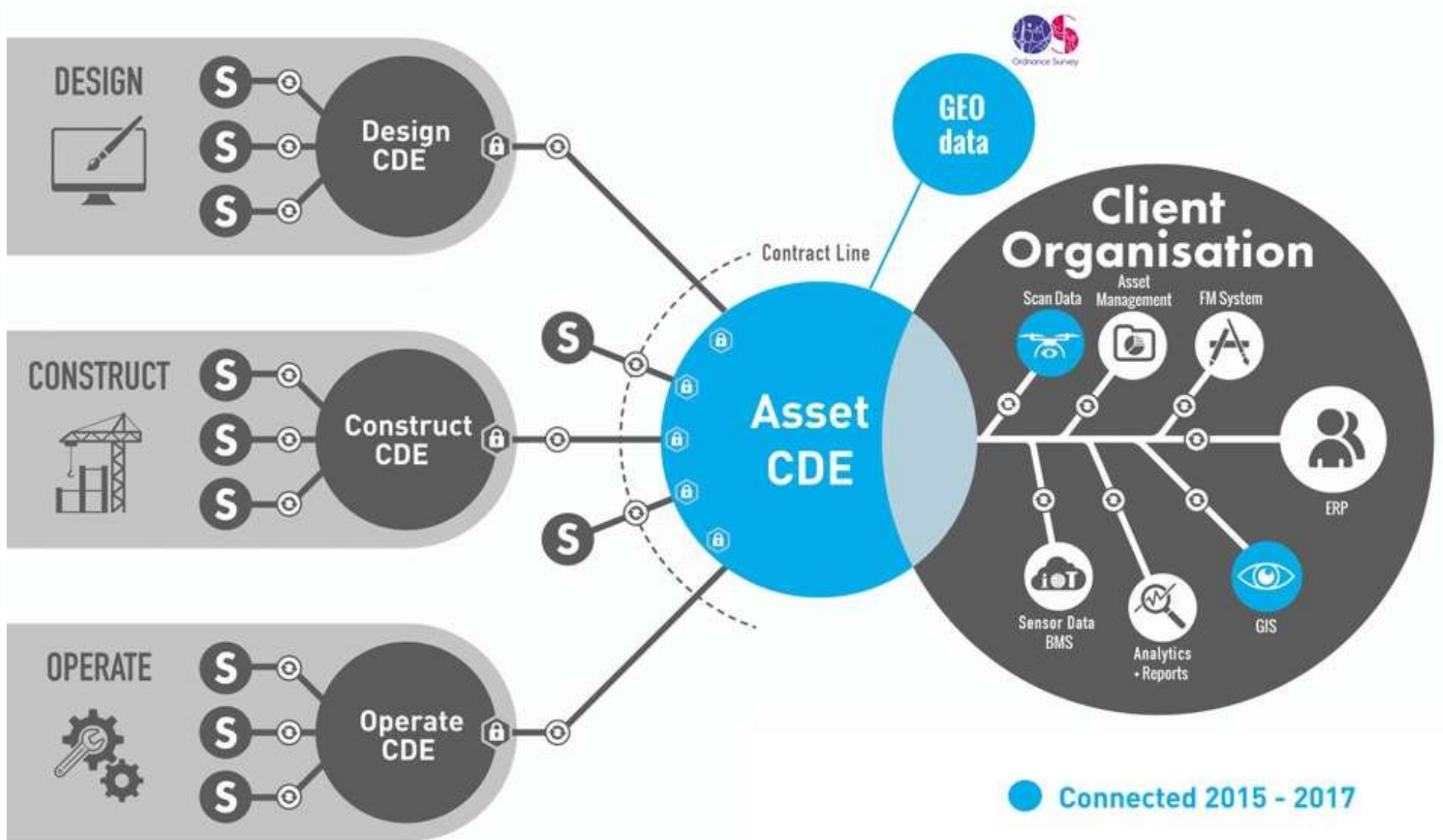
Geospatial data supplied by the UK's leading mapping agency and data supplier, Ordnance Survey.



Technology Built on BC's Common Data Environment platform.



# Next Generation - Common Data Environment



# Who is GeoConnect+ for ?

## 1 - GeoConnect+ for built asset owners

Where there are multiple dispersed assets to manage  
e.g. Water authorities, housing associations, airports  
universities, councils, developers, government depts.

## 2 - GeoConnect+ for linear Projects

Projects that are complex and often linear in nature  
e.g. waste treatment plants, power stations , roads, railways,  
large housing schemes etc.

## 3 – GeoConnect+ for viability & planning

Point solution for large controversial projects  
where stakeholders need to really understand context.

# Thames Water

Their Journey with GeoConnect+  
(So Far)

eight<sub>2</sub>O



# Background

- Context

- Ongoing capital investment program of circa £1 billion p.a. to replace or improve infrastructure in London and the Thames Valley.

- Activities

- Projects relate to the abstraction, storage, treatment and supply of clean water and the associated removal, treatment and discharge of waste water.
- Programme and project management
- Planning, design and construction
- Civil, mechanical, electrical and control engineering

- Delivered By

- Joint Venture: eight20





# Project Risks

- Environmental
- Third Party
- Legal
- Natural
- Archaeological
- Boundaries
- Other Projects



SSSI enforcement  
policy statement

## Introduction

We are the statutory body whose functions include conserving and enhancing England's natural environment. We work in partnership with others by:



# Data Sources and Providence



# Do nothing is not an option...

- Users are Location Independent
- Users are using various Devices
- Users are Impatient!
- Need to Substantially Improve the Alternative
  - Must be Embedded in Familiar Environment
  - Must be Cost Effective
  - Must be Easy to Access (Single Platform)
  - Must be Current and Reliable

# The Solution



Enhance the existing Thames Water Common Data Environment (TW CDE) TWEXnet - provided by BC since 2005

The TWEXnet platform already hosts 5Tb of TW project documents, processes, standards, an open source 3D model viewing tool, E Tendering tools, a Solutions Hub other project delivery support tools.

# GeoConnect+ at Thames

The screenshot displays the GeoConnect+ web application interface. The main window shows a map of the United Kingdom with various data layers overlaid. The sidebar on the left contains a 'My Projects' section with a search filter and a list of project categories including 'AMPS Capital Delivery', 'AMPS Text Test', and various 'AMPS' related projects. Below this is a 'My Tasks' section with a list of tasks. The main map area shows a detailed view of the UK with various data layers selected, including 'National Nature Reserves'. The bottom of the interface shows a navigation bar with file names like 'selected\_data (7).csv' and 'selected\_data (6).csv'.

**GeoConnect+ Data Layers:**

- External Data**
  - Environmental
    - Ancient Woodland (2017/01/20)
    - Areas of Outstanding Natural Beauty (2017/01/25)
    - DA Flood Data
    - Local Nature Reserves
    - National Nature Reserves
    - RAMSAR Site
    - Special Area of Conservation
    - Special Protection Area
    - Site of Special Scientific Interest
  - Boundaries, Topography and Roads
    - Local Authority Boundaries
    - OS Roads
    - OS Topography
    - Thames Company Boundary
  - Heritage
    - Archaeological Priority Areas
    - Battlefields
    - Listed Buildings Points
    - Registered Historic Parks & Gardens
    - Scheduled Monuments
    - World Heritage Sites
- Categories**
  - All Categories
  - AMPS 600 Water Water Info
  - AMPS 6000 Waste Water Info
  - AMPS 60 Water Info
  - AMPS 600 Water Non-Info

**Selected Data Table:**

National Nature Reserves	
CREATION_DATE	01/01
DATE_CREATE	2016-11-24T00:00:00
DATE_EXPIRE	
LAST_UPDATE	
NAME	Castle Bottom
NUMAREA	60.82128712
EASTING	47999.94318
NORTHING	18967.88863
LATITUDE	51.20104

# Mackley

Their Journey with GeoConnect+  
(So Far)

**MACKLEY**

# Background

- Context

- UK Civil Engineering Contractor engaged in docks, harbour works, costal and fluvial flood defences.

- Activities

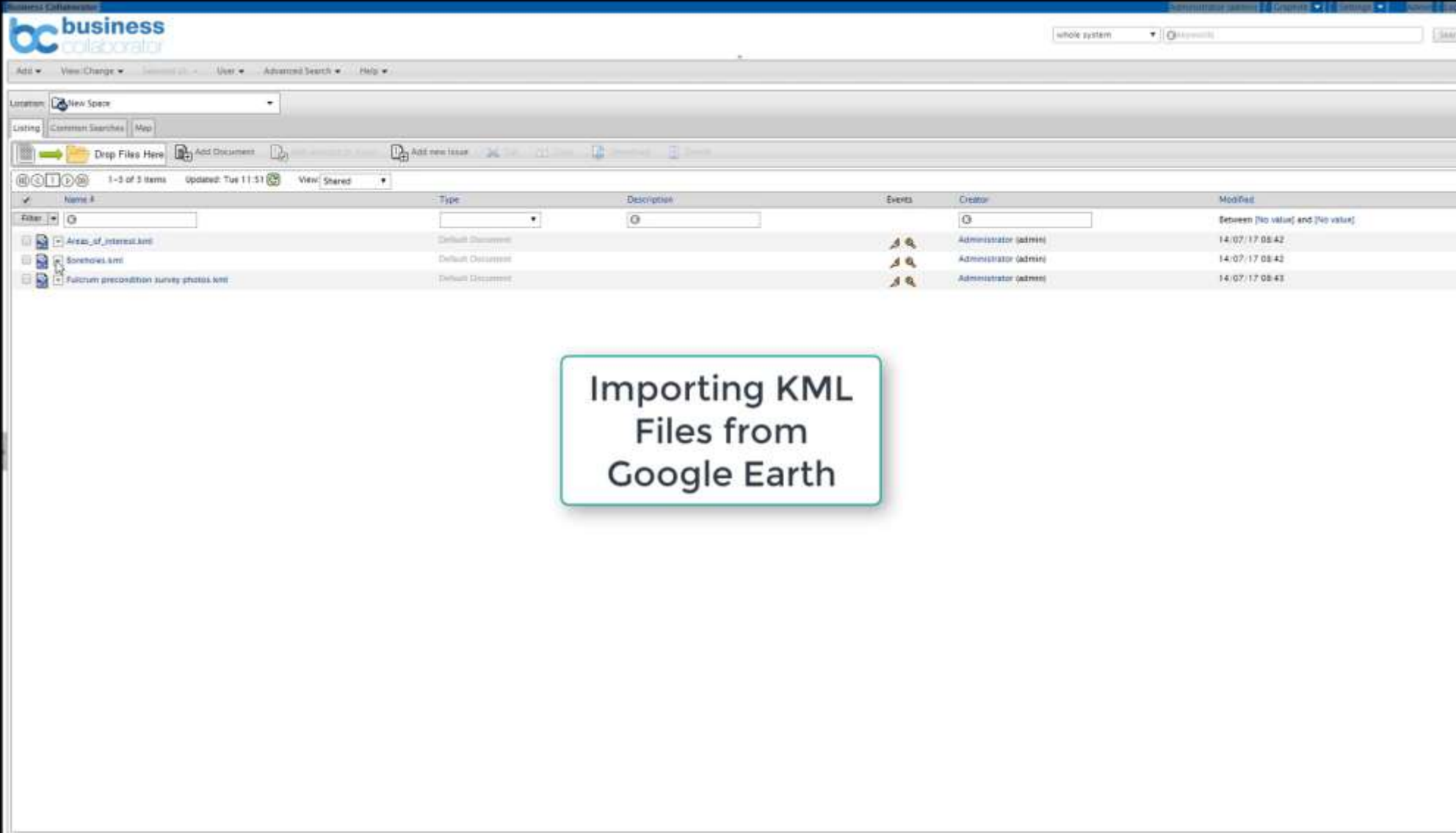
- On Environment Agency Framework since 2006
- Mandate to deliver using BIM processes



# The Need

- Project Delivery and Asset Management
  - Information needs to be easily available to those “on remote sites”
    - E.g. Borehole Logs, Pre-condition Surveys
  - Information Queries must be responded to accurately (e.g. by phone)
  - Asset Information Handover must be easily accessed
    - Five years later they won’t know which projects to look in, even *after* handover
    - At the moment, just a load of “siloes” drawings

# GeoConnect+ at Mackley



The screenshot shows the 'bc business collaborator' web interface. At the top, there is a navigation bar with the logo and a search bar. Below the navigation bar, there is a 'Location' dropdown menu set to 'New Space'. A toolbar contains various icons for file management, including 'Drop Files Here', 'Add Document', and 'Add new issue'. Below the toolbar, a table displays a list of files. The table has columns for 'Name #', 'Type', 'Description', 'Events', 'Creator', and 'Modified'. Three KML files are listed:

Name #	Type	Description	Events	Creator	Modified
Area_of_interest.kml	Default Document			Administrator (admin)	14/07/17 08:42
Soreholes.kml	Default Document			Administrator (admin)	14/07/17 08:42
Fulcrum preconditions survey photos.kml	Default Document			Administrator (admin)	14/07/17 08:43

A central text box with a green border and shadow contains the text: 'Importing KML Files from Google Earth'.

# Wienerberger

Delivering Smart Housing

# Procuring Digital version of the built asset



Make,  
Model

Paint  
colours

Service  
Dates

Manuals

Sensors

Controls

# GeoConnect+ at Wienerberger



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