

# Grand Union Housing Group manages its assets with OS MasterMap®

Case study



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## Challenge

### Providing quality homes and value for money

Grand Union Housing Group (GUHG) includes Aragon Housing Association, created in 1994 to handle the transfer of homes from Mid Bedfordshire District Council; Macintyre Housing Association, which provides 300 homes for people with learning disabilities; and South Northants Homes, created in 2008 to take responsibility for housing stock transferred from South Northamptonshire Council. The Group manages 10 000 dwellings plus 2 700 garages.

It may be a not-for-profit landlord, but GUHG faces all the pressures of a business: how to keep overheads and running costs down whilst investing in new homes to meet the ever-increasing demand for affordable homes. To respond to these challenges, GUHG is making increasing use of GIS as a business tool. Graeme Gould, the Group's GIS Officer, explains: *'My predecessor set up OS MasterMap and Address Layer 2 and my main role has been to create the extensive database of geographic information that goes on top of this – this really is the key to effective use of GIS across the Group'.*

## Solution

### Transforming existing data into spatial information

GUHG uses OS MasterMap Topography Layer, Imagery Layer, Address Layer 2 and Boundary-Line™ with its Cadcorp SIS® – Spatial Information System® suite. Spatial data is stored in an open source, PostGIS database with colour raster images being stored in a normal file directory structure within Microsoft® Windows®. The GIS is delivered by a Citrix server so that it is available to any user, with no need for a local GIS application. There are three concurrent licences used within the Group.

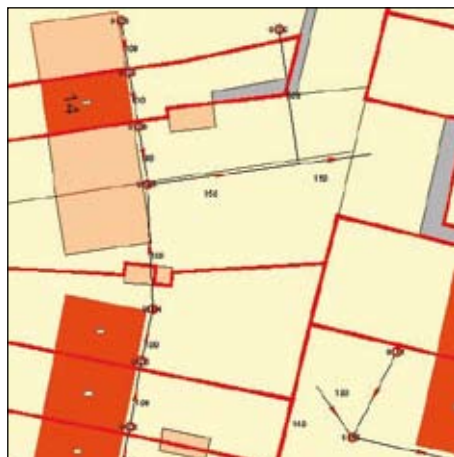
Graeme Gould again: *'One of my first jobs was to map information from Aragon's housing database into the GIS. I've also been building up core geographical data – I spent two months just on sewers.'*

*'That involved importing CAD (computer-aided design) data from the design and development department. Now all the relevant data is together in one place.'*

*'Address Layer 2 is used as a gazetteer to search for and pinpoint addresses within our locale. The new Address Layer 2 manager from Cadcorp® provides significant additional information, which allows it to be used much more effectively. We can now link Address Layer 2 directly to the MasterMap Topography Layer, so we can identify properties automatically.'*



**Property extract map**



**Mapped sewer plans**

*'I can take a spreadsheet from the housing database, link it with addresses and postcode and see it presented in colour within OS MasterMap. This makes it really easy to identify our properties and estates, and highlight all the relevant details associated with a unit, for example, whether a tenant has the right to buy.'*

## Benefits

### Saving time, effort and money

According to Graeme Gould, Address Layer 2 (AL2) saves time. *'Property searching would take much longer without AL2. We would have to move around OS MasterMap until we had identified the relevant location. This would require some general idea of where the property was situated. Likewise, when adding new properties to our datasets we would have to find and then digitise each property individually rather than create a link to MasterMap and extract the building polygons. The fact that we can extract building polygons for our properties with AL2 will enable us to save time when generating maps in the future. It will also mean that I will not have to go around and check the extents of each building after a new OS data load.'*

Housing managers throughout the Group will be able to see the location of a property when they are dealing with any matter related to it. They will, for example, clearly see the geographic spread of properties being repaired under the rolling programme of maintenance. *'It may be that by clustering work in local areas and carrying out some repairs earlier than intended, they can make efficiency savings from having one contract instead of two or three.'*

### Clear boundaries of responsibility

When managing a large number of properties it is critical to know exactly where boundaries lie, where shared access applies and where the responsibilities lie. This matters particularly when new stock is taken on and when stock is disposed of, for example, when tenants exercise their right to buy. When a surveyor draws up a boundary and notes boundary responsibility, these precise details can be allocated a coordinate in the housing database and so can be clearly viewed in the GIS. *'MasterMap provides us with the ability to identify exactly what areas are included in any transfer'*, says Graeme Gould.

When South Northants Homes was established the transfer involved 2 900



dwelling, 103 leaseholds and 1 476 garages and hard standings. Previously, hard copy maps would have been the only option to show the way land is divided up. This time the process was streamlined. *'The Council passed on geographic data in addition to physical maps. As South Northants Homes takes data into its housing database we are transferring information to our spatial information database so any inconsistencies will show up. In addition, we will be able to make the data available to staff in a lot less time because we can digitise the individual properties and the areas being transferred.'*

Aragon's grass-cutting contract with Mid Bedfordshire District Council is one example where clear boundary responsibility made a financial difference. *'We noticed that the council's estimate was rather high,'* said Graeme Gould. *'We used OS MasterMap to determine exactly what was to be included in the contract and then used it to calculate exact areas. This resulted in a substantial saving: £7 000 reduction on a total contract worth £32 000. This is a 22% reduction in cost. In 2008 we will be carrying out a full survey of grass and surfaced areas to ascertain if we can generate further savings.'*

### Improving quality of life

GIS capability is also supporting a council project to manage antisocial behaviour on one estate. Graeme Gould obtains a date and postcode reference for every reported incident. He then links the postcode from the data file to the GIS data layer to create a 'hot-spot' map. This visual data is submitted to the project manager and collated along with data from other organisations, such as the police and the ambulance service, as part of a multi-agency approach to improving quality of life for residents.

### Recognising development potential

GIS has a major role to play in refurbishment and development programme notes. Graeme Gould: *'We can easily identify suitable spaces, perhaps older properties that have big gardens. If someone has noticed such a plot, I can work out the exact size and assess its potential for development. This may in the future save on architect fees.'*

He has also been working on a project involving the development of some properties in need of serious repair. *'I imported some CAD drawings of the existing floor plan and compared this with various proposed extension plans to see which design would be most appropriate. In addition, we have some buildings made of non-traditional materials, which we will need to demolish at some stage. Our ability to check out designs and floor plans will really be useful then.'*

### Creating a more open organisation

His aim is to see GIS used as a central repository of information for the whole of GUHG. *'Once GIS is fully linked to the housing databases, we will have a holistic organisation that shares core information currently restricted to individual departments. Each time a new property is taken on we will add every other piece of information so that the data really works for all of us.'*

## Return on investment

### An informed strategic direction

From a planning and financial point of view GIS makes a clear contribution. *'The beauty of GIS is that we can pinpoint a location and see how it looks in the real world,'*

states Graham Lennox, Aragon's Director of Finance. *'This gives us trends and patterns easily and gives budget holders better information on which to make decisions.'*

He can also see how GIS can be used to link in with government statistics to identify demographic patterns. *'We can carry out analysis that will feed into our future plans. It will, for example, be easy to highlight poverty hot spots, assess the existing density of social housing and the potential need for new social housing. We will even be able to use GIS to demonstrate the success of our own recruitment in certain areas.'*

### The future includes GIS

Graeme Gould has a clear vision: *'I hope to increase the number of Cadcorp SIS Map Manager licences and distribute them to Group staff over Citrix'.* He also plans to set up edit rights for certain users. *'This will allow people to create their own data within the GIS, either on a temporary or permanent basis. I want to remove myself from the day-to-day use of the system by getting everyone comfortable with GIS data and access.'* The aim is for every team to have some GIS ability. With this in mind, he will be doing some training and gathering feedback and suggestions.

Graham Lennox again: *'GIS use is growing within the Group. It offers the ability to increase savings through better management and allows us to provide an ever-improving service to our tenants. The future is exciting with plans to use GIS on our Intranet and eventually make it available to our tenants through the Internet.'*





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