



Feasibility Report

FOR MELTON BOROUGH COUNCIL

GRANBY HOUSE, MELTON MOWBRAY

February 2015

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Approved For Issue

Director: T R Shipman BSc (Hons) MRICS

Date: 13th February 2015

1.0 EXECUTIVE SUMMARY

Built in 1974 Granby House is a part two, three and four storey cavity brick wall sheltered housing scheme with pitched and flat roofs. The scheme consists of twenty eight single person studio flats (with own bathrooms and showers), a two bed flat and two flats suitable for couples together with communal reception, lounge, kitchen and dining facilities.


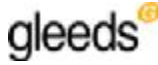
In 2012 Melton Borough Council instructed Gleeds to undertake a condition survey report of Granby House and subsequent assessment of improvements required within communal kitchen, dining and circulation spaces in order to provide compliant accommodation that satisfies modern day standards. In addition, and partly in response to the original condition survey, Gleeds were instructed to procure a report on the possible replacement of the existing antiquated electric heating system with alternative sources of heating and hot water solutions.

This report assesses the feasibility and costs associated with installing a new gas fired heating system at the site along with improvements to circulation and communal spaces. In addition, Gleeds have updated the initial 2012 condition survey and have undertaken further analysis of severe ponding to flat roofs. This report includes recommended repair options and budget costs associated with our diagnosis of the specific roof ponding issues. A summary of overall works considered within this report are as follows:

- **Installation of a new gas fired heating system.** Design philosophy – strip out existing electric heating system, install new central boiler and distribution pipework to heat stations located within store rooms in each flat, the heat station will meter the gas use by each tenant. New gas supply required and considered as part of this report.
- **New mechanical ventilation.** Existing flats have condensation issues caused partly by a lack of suitable ventilation, potential inadequate or irregular heating patterns (works above will assist with further mitigation). This report considers the installation of new mechanical extract ventilation within the kitchen and bathrooms of each flat to remove moisture at source.
- **Internal Circulation Enhancements.** Existing corridors have painted brick finishes, aged vinyl floor tiles and an unacceptable lighting lux level. In addition, existing fire doors appear non-compliant and a number of accessibility issues have been highlighted and considered. This report assess the works and costs involved with uplifting these spaces.
- **Communal Kitchen Upgrade.** In response to resident feedback regarding poor layout and condition of the existing kitchen Gleeds have assessed minor reconfiguration and refurbishment works.
- **Communal Bathroom Upgrades.** Existing communal bathrooms are inaccessible to residents and are in poor condition. Some bathrooms are used as storage spaces and the total disuse of sanitary ware in these areas present an increased risk of legionella. This report assess options involving refurbishment of existing shared bathrooms to provide new assisted level access shower and bathing facilities and new store rooms.

The report assesses a number of cost options pertaining to the works above to provide Melton Borough Council with flexibility in decision making based on budget.

A preliminary assessment of project programme has been undertaken and a summary of the key milestone dates are outlined below.

	
MELTON BOROUGH COUNCIL	
Summary of Key Milestone Programme Dates	
* It is assumed that works are to be undertaken during normal working hours	
* Programme dates subject to further discussions with Melton Borough Council and local residents	
Key Milestone	Date
Board Approval to Works	Friday 20th March 2015
Gleeds Appointment	Monday 23rd March 2015
New Gas Supply Application	Friday 10th April 2015
Design Development	Friday 1st May 2015
Board Approval to Proceed to Tender	Friday 8th May 2015
Gas Supply Install	Friday 10th July 2015
Contractor Appointment	Friday 17th July 2015
Contract Start Date	Monday 10th August 2015
Contract Completion Date	Friday 6th November 2015

Gleeds welcome any further discussions or queries in connection with the advice given within this report.

2.0 BACKGROUND

2.1 Introduction

Gleeds Building Surveying Ltd were invited to a meeting with Melton Borough Council at Parkside, Melton Mowbray on Thursday 6th November 2014 to discuss the progression of improvement works at Granby House as previously assessed by Gleeds Building Surveying Ltd in 2012. At this meeting Gleeds Building Surveying Ltd were requested to prepare an updated feasibility report in accordance with the following brief:

1. Update the previous condition survey for the site along with updated budget costs. Undertake further analysis of severe ponding to existing flat roofs.
2. Assess the costs and feasibility of improving the 'feel' and aesthetics of circulation areas around Granby House.
3. Upgrade of the communal kitchen in accordance with the requirements of the onsite warden and residents.
4. Refurbish existing bathroom accommodation to provide one level access shower facility on each floor. All other bathrooms are to be stripped out and used for storage space.
5. Enhancement of the external communal areas.
6. Progress with the assessment of previous recommendations to install gas fired heating at the site.

This report looks at the feasibility of refurbishing Granby House from various professional perspectives including architectural, building surveying, services engineering and cost management.

This report has been prepared for the sole benefit of the person to whom it is addressed. No third party may rely on it unless Gleeds Building Surveying Ltd has issued a letter to that third party referring to this report by date and reference number and stating that the third party may rely on it. Gleeds Building Surveying Ltd will not unreasonably refuse a request to issue such a letter to a single third party (who may not assign it). Gleeds Building Surveying Ltd will not have any liability to any such third party which is greater than its liability to the party to whom this report was originally addressed.

2.2 Condition of Granby House

2.2.1 Overview

Gleeds Building Surveying Ltd produced a condition report on Granby House in 2012. This was refreshed in December 2014 as part of the preparation of this report. This survey highlighted the key items of repair which are summarised below for reference.

2.2.2 External Disrepair

- The felt covered flat roofs are in poor condition and are holding large amounts of water. There is evidence of previous leaks. Please see Section 7.0 for more details.
- There are spalled bricks and missing mortar joints to the brick parapet walls throughout. Some of the concrete copings are also loose due to a breakdown of the mortar beds.
- The existing windows are double glazed polyester coated metal casements with an exposed galvanised steel corner post. These are causing internal cold bridges which are leading to condensation issues within the resident's flats.
- General external repairs expected of a building of this age and construction type including external re-decoration, rainwater goods repairs, patch re-pointing of brickwork and replacement of damaged concrete roof tiles.

2.2.3 Internal Disrepair

- The lighting levels within the communal area are sub-standard. On testing the lux levels were found to be approximately 30 lux. The recommended lux level for this type of circulation area is 100 lux.
- There is a lack of coherent fire and exit signage throughout.
- The shared bathroom facilities are no longer used but have not been disconnected. This greatly increases the risk of legionella disease within these areas.
- It was noted that there are large quantities of thermoplastic floor tiles within circulation and communal bathing facilities which contain asbestos within the tile itself or the bitumen adhesive. These are in poor condition with areas of broken and loose tiles.
- The full height glazed screens to the internal circulation areas show no evidence of having the necessary impact and collision resistance.

Appendix A contains a more detailed breakdown of the works recommended and includes budget costs against each item.

3.0 INTERNAL CIRCULATION ENHANCEMENTS

3.1 Introduction

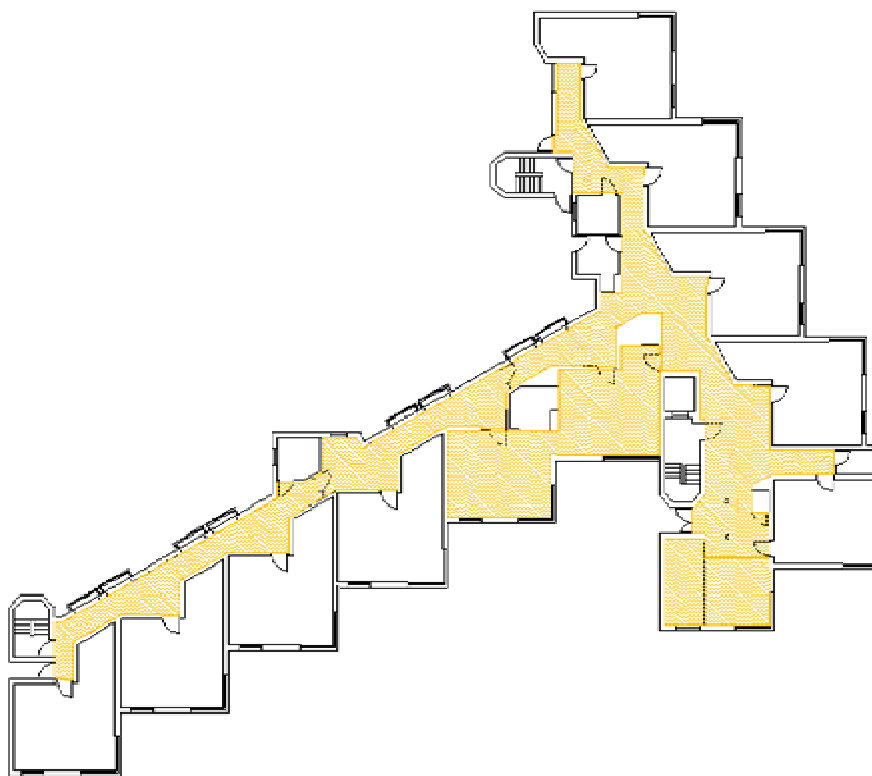
Following an inspection of the site and discussions with Melton Borough Council Staff the following issues were noted with the communal areas:

1. The corridors are poorly lit. This makes the corridor seem unwelcoming and unsafe for the residents.
2. Internal decorations (including painted brickwork) are in poor condition throughout. This gives the scheme a cold 'neglected' feel and is contributing to residents' negative perceptions of the scheme.
3. The flooring throughout is dated with a 'hard' finish adding to the cold unwelcoming feel.
4. Observations were made of a number of areas and systems within the building which are MBC's responsibility and do not comply with current regulations.

3.2 Communal Surface Finishes

3.2.1 Introduction

A number of different options are outlined below which have been designed to address the issues within the circulation spaces highlighted on the drawing below.



Ground Floor Plan

3.2.2 Wall Proposal

Gleeds Building Surveying Ltd have appraised two options to achieve a smooth painted finish to the walls and Artexed ceilings along with painted finish. This standard of wall and ceiling finish will uplift the existing circulation spaces to modern day standards and as a result, residents will be provided with a more welcoming environment. Three wall finishes have been considered and costed within this report. These are;

- Wall Option A - Installation of new plasterboard with a painted plaster finish
- Wall Option B – Installation of built up plaster with a painted finish
- Wall Option C – Paint existing brickwork

3.2.3 Flooring Proposal

Two options have been considered to address the existing thermoplastic floor tiles, seen adjacent, with the aim of improving their appearance and giving a more comfortable feel underfoot;

- Flooring Option A – Installation of anti-slip vinyl (see below)
- Flooring Option B – Installation of carpet tiles



3.3 Communal Lighting Upgrades

3.3.1 Introduction

The existing communal lighting levels are poor. A light level reading was taken within the communal corridor of approximately 30 lux. The CIBSE Lighting Guide for Residential Building 2013 recommends a lux level for corridors and circulation areas of 100 lux. Additional issues were noted with the emergency lighting installations. The emergency lighting to the stairwells is unlikely to be adequate with areas of the stairs and landings not covered by the lighting. The existing fittings also no longer comply with current standards.

3.3.2 Proposal

It is recommended that the existing emergency and communal lighting is upgraded and replaced. It is also recommended that the lighting controls are upgraded at the same time. This will have the following benefits:

- Compliance with legal standards for emergency lighting, including BS 5266
- Compliance with guidance for lighting levels in circulation areas
- Improved security and 'feel' of communal areas for residents
- Improved visibility and therefore accessibility

It is also proposed that the lights are replaced with LED fittings. These fittings would have the additional benefit of reducing life cycle costs by reducing maintenance costs and reducing energy usage.

It is further suggested that the lighting controls are upgraded to PIR sensors with split light levels as part of any replacement. This will allow a permanent low level of ambient lighting within circulation spaces which would increase when the corridor is in use. This will assist in improving security for residents while reducing energy usage.

3.4 Regulatory Compliance Works

3.4.1 Introduction

While undertaking the condition survey of Granby House a number of elements were identified which present a potential risk to MBC through non-compliance with regulatory standards.

The key items identified are:

- Non-compliant fire signage.
- Full height external glazed screens leading onto communal corridors not having adequate impact resistance.
- Redundant hot and cold water pipework not disconnected, presenting a legionella risk. This is described in more detail in Section 5.0.

3.4.2 Proposals

The following items of works are recommended to be included within any internal communal upgrade of Granby House to address these issues:

- Renewal and re-configuration of fire signage.
- Renewal of full height communal glazed screens with impact resistant screens.
- Disconnection of redundant hot and cold water pipework.
- Review and replacement of fire doors

It is additionally recommended that should any works be undertaken a full programme of maintenance is carried out to the existing fire doors including renewal of any defective smoke seals or door closers.

As part of the specification of any or the works recommended or proposed within this report the Fire Risk Assessment should be consulted to ensure that any works recommended within the Fire Risk Assessment are included within the scope of works.

If a Fire Risk Assessment is not available one should be commissioned prior to works commencing.

All plumbing works undertaken in addition to the disconnection works recommended above should be carried out in accordance with Approved Code of Practice L8 Management of Domestic Hot and Cold Water Systems.

3.5 Accessibility Works

3.5.1 Introduction

While undertaking the condition survey a number of situations were noted which caused residents difficulty in their use of the building. Under the Equality Act it is important to ensure all residents and visitors have equal access and use of the building. In particular the following areas of concern were noted:

- The front entrance door is heavy and difficult to open.
- There are steps to the fire escape door on King Street.
- The current communal bathrooms do not comply with current accessibility standards.
- Lighting levels in circulation areas are poor.
- There is no mirror or voice communication within the lift.

3.5.2 Proposals

It is recommended that the following specific works are carried out to address the issues raised above:

- Renewal of the existing front door.
- Construction of a ramp to the fire escape door on King Street.
- Undertake improvement works to the lift.

Should MBC choose to proceed with elements of works outlined elsewhere within this report then consideration should be given to improve the accessibility of Granby House as a matter of course. Some of these measures would include:

- Selection of sufficiently contrasting colours to assist visually impaired residents and visitors.
- Improvement to lighting levels.
- Upgrade of communal washing facilities to accessible bathroom and shower facilities.
- Installation of new flooring to remove trip hazards for people with mobility problems.
- Improved heating and reduction in mould to assist residents with health and, in particular, respiration problems.
- Upgrade of flat roofs that form a fire escape to improve access for residents with mobility problems and remove trip and slip hazards.

4.0 COMMUNAL KITCHEN UPGRADES

4.1 Introduction

Gleeds Building Surveying Ltd have previously held discussions with MBC staff and the following comments were made by residents:

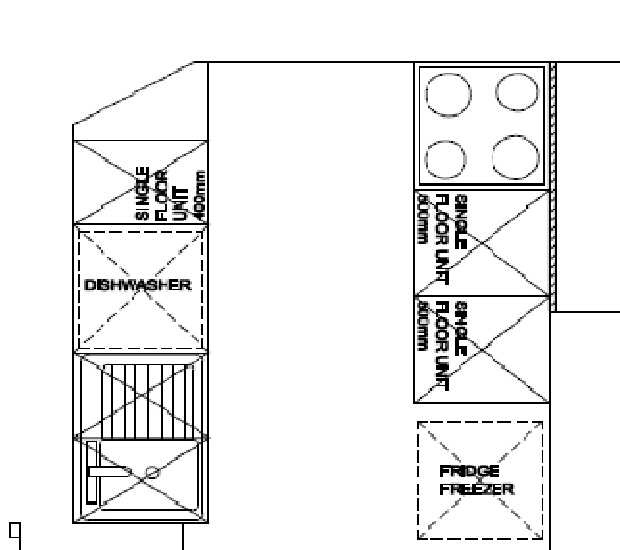
- There is a lack of storage space
- The residents would benefit from having increased worktop space
- The existing dining room is not inviting



4.2 Proposals

The resident's requirements were carefully considered and it is proposed to replace the existing kitchen to address these issues. The proposed layout drawing is shown adjacent:

To accommodate this design it is recommended the existing service hatch is infilled to allow the cooker space to be relocated. This will give increased space within the kitchen allowing the fridge freezer and



dishwasher to be incorporated within the kitchen layout and located under the worktop. The sink unit has also been relocated to ensure the maximum distance from the cooker space. We have additionally allowed for an electrical point of use hot water heater within this kitchen.

Residents previously requested a mid-height oven unit be included within the kitchen. It would be necessary to reduce the available storage space by approximately 35% to incorporate this with a hob unit so this has not been shown on this plan.

An allowance to change the carpet in the dining area has been included in the flooring section. The decoration and lighting of the dining room is included within these respective sections. It is suggested upgrading these would make the dining room a more attractive space for residents. Although outside the scope of this report it is also noted the existing furnishings could be upgraded at the same time as any works.

The overall works to the kitchen would consist of:

- Renewal of existing units and worktops.
- Renewal of existing floor finish.
- Redecoration of kitchen area.
- New tiling to kitchen including cooker space.
- New plumbing and electrics to kitchen area only.

Should works to be carried out to the kitchen they would consist of the following:

- Strip out of existing kitchen.
- Installation of new units and worktops.
- Installation of new flooring.
- Redecoration.
- Plumbing and electrical upgrade works.

5.0 COMMUNAL BATHROOM UPGRADES

5.1 Introduction

Within Granby House there are eight communal bathing facilities. These consist of two bathrooms on the ground floor and two bathrooms and one shower room on each of the first and second floor. It has been noted that they do not comply with current legislation regarding bathing facilities for people with disabilities and are not used due to their lack of accessibility and general condition.

Gleeds Building Surveying Ltd have been instructed to assess the feasibility of:

- Option 1 – Provide one level access shower facility per floor with remaining redundant bathrooms to be stripped out for storage use.
- Option 2 – Provide one level access shower facility and one assisted bathing facility for each floor with remaining spaces stripped out for storage use.

5.2 Existing

The photos below highlights the poor condition with associated Health and Safety risk and barriers to access found within the existing bathing facilities.



Barrier to access to shower created by tiled boxing and a high step into the shower tray.

The poor condition of the sanitary ware and existing floor tiles as seen below has led to the disuse of the facilities, increasing the risk of legionella.



The potential risk associated with leaving the bathrooms in their existing state will promote the growth of legionella through the stagnant water within the pipework caused by lack of use. This contamination can spread into the remainder of the buildings water supply system, potentially affecting the residents who are of an elderly age within Granby House and so are a particularly vulnerable population. It should be noted that regardless of the development route taken, all bathing facilities not in use should be decommissioned to mitigate the risk of this.

5.3 Proposal

Gleeds Building Surveying Ltd held discussions with MBC staff and the following requirements were noted for these facilities:

- Attractive facilities for residents.
- Fully accessible and where possible within the existing space compliant with the Equality Act.
- Conversion of unused bathing facilities to storage.

Two options have been proposed one to provide one level access shower facility per floor with remaining redundant bathrooms to be stripped out for storage use. The other option is to provide an additional assisted bathing facility for each floor with remaining spaces stripped out for storage use, all of which being compliant with current Equality Act.

The works to each bathroom would consist of:

- Stripping out existing sanitary ware.
- Installing new vinyl flooring.
- Installing Whiterock walls to the shower room and partially tiled walls the bathroom.
- New lighting.
- New wash hand basins including grab rails.
- New disabled access shower including grab rails (see photo).
- New disabled access bath including grab rails.
- New wider disabled access doors.





The works to each proposed store room would consist of:

- Stripping out of existing sanitary ware
- Removing back to source and capping off of hot and cold water feed.
- Installing new vinyl flooring
- Repair any damaged to walls
- Paint all walls and ceiling

6.0 EXTERNAL WORKS

6.1 Introduction

Following an inspection of the site and discussions with Melton Borough Council Staff it was noted that the external communal areas are lacking aesthetic appeal with limited planting schemes. The boundary has no perimeter fence making the property feel open to the street, with no clear route to the entrance. This contributes to residents security fears.

6.2 Proposal

From the site visit the following suggestions have been made:

- Installation of external railings to the perimeter of the grassed areas surrounding Granby House.
- Replanting of communal areas.
- Upgrade of external lighting.
- Alteration of existing entrance to move forward entrance doors and install canopy.
- Construction of new bin storage area.

It is proposed to install the railings around the building to provide the residents with an area of 'defendable space'. This will also help to give the residents ownership of this area, while addressing the issue of dogs fouling on communal spaces. It would not be necessary to lock these gates to achieve this, ensuring there is no increased management burden on MBC.

The external appearance of the scheme would be improved by replanting the communal areas. 'Defensive' planting could be used which is designed to improve security through discouraging people from entering the planted areas, and so the space behind.

Upgrading the external lighting will also help to improve the residents sense of security and well-being. The current external lighting levels are very poor with areas of shadow.

While undertaking the site inspection it has been observed that the communal front door is located within a brick alcove. It is not possible for people approaching the front door to see whether there is someone in this alcove, which contributes to resident's security fears. An additional issue is that currently this entrance has limited visual impact making it difficult to locate.

It is therefore proposed to bring forward the entrance door to the front of the brickwork, so making the existing alcove internal. An overhead canopy would then be fitted to provide weather protection to people waiting at the door. This would have the added benefit of providing a visible and defined entrance to the building.



Currently the communal bins are located to the rear of the building. It was noted on inspection that the existing bin stores are not used and appear unsightly. It is therefore suggested that a new bin store could be constructed to the rear of the building in close proximity to the internal bin store room. This bin store would be surrounded by fencing to hide the bins from view and match the general appearance of the scheme.

7.0 ROOF WORKS

7.1 Introduction

Granby House has a mixture of pitched and flat roof coverings. There are two areas of flat roof covering, to the North elevation overlooking Greenslade Avenue and also to the rear elevation of the building for its full length. There is a third smaller area of flat roof covering linked to the area overlooking Greenslade Avenue, but on a different level and independent of the main roof.

The emergency escape stairwells also have a flat roof covering but these have been replaced relatively recently and are considered outside the scope of this report.

The building has a concrete roof slab on which the flat roofs are constructed. A timber frame been fixed directly onto the top of the slab to create a roof void. A timber roof deck has then been fitted onto this timber frame. There was evidence that a fibre based insulation has been laid into this roof void. Originally two layers of asphalt were applied to timber roof deck to create the roof covering. At a later date a layer of mineral felt was laid on top of the asphalt.

Where the roof adjoins the main building, which is of cavity brick wall construction, up stands have been created with lead flashings provide a weather proof joint to the top of the up stand. Again these up stands were originally formed in asphalt and have since been covered with mineral felt. On elevations which do not adjoin the main building the roof is adjoined by parapet walls. The up stands to these have been created in the same way.

The roof is drained using in roof outlets which connect to internal downpipes. To the rear of the building a through parapet outlet has also been used. This is not connected to any surface water drainage and discharges directly onto the ground below.

It was noted that both roofs form fire escape routes for occupants of the building.

There is evidence that leaks have previously occurred through this roof. Internal staining can be seen where this has occurred.

Both roofs are holding large volumes of ponded water, image below. The following reasons for this were observed:

- Insufficient number of roof drainage outlets for the area of roof being drained.
- Water from local pitched roof draining onto flat roofs further increasing volume of water and overwhelming roof drainage.
- Roof outlets surrounded by soil stacks. The collars of the soil stack are higher than the roof deck which is restricting drainage into the outlets.
- Walkway tiles have been installed directly to the roof deck. There is no provision for water to drain under the tiles and these are further preventing water entering the roof drainage.
- A metal handrail has been installed to the rear elevation flat roof. This is fixed into concrete blocks which have been laid directly onto the roof deck. The extra weight of this may be causing deflection of the roof deck so further preventing the water draining into the outlets.



There was evidence that the up stands are also beginning to fail with pointing missing to the lead flashings covering the up stands. This was particularly evident to the roof overlooking the Greenslade elevation.

There are areas where the mineral felt surface layer is observed to have blistered. It is suggested that the mineral felt layer was installed over the original asphalt due to failures in this roof covering. The blistered areas may correspond to original defects within the asphalt or areas where the mineral felt has not fully bonded to the asphalt.

These flat roofs are in poor condition with inadequate drainage and the large volume of ponding water will only further increase the risk of leaks.

7.2 Recommendations

It will be necessary to affect repairs to these flat roofs to ensure they continue to perform adequately. Unfortunately it is not considered practical to increase the number of in-roof drainage outlets within this occupied building. However the potential works have been broken down into three separate options based on a short, medium and long term option:

No Works Carried Out

It is anticipated that the existing defects in this roof will cause internal water leaks within the next two to three years if not rectified. There is evidence of some water leaks having already occurred in the form of discolored communal decoration consistent with such a leak. There is anecdotal evidence from site based staff that these leaks continue to be an issue. It is therefore recommended that repairs are carried out, with three options outlined below.

Short Term Repair

The short term repair option would be to carry out essential repairs only to the existing covering. These repairs would consist of:

- Renewal of felt upstands and flashings.
- Clearance of existing 'in roof' drainage gulleys.
- Patch repair to defective areas of felt covering.

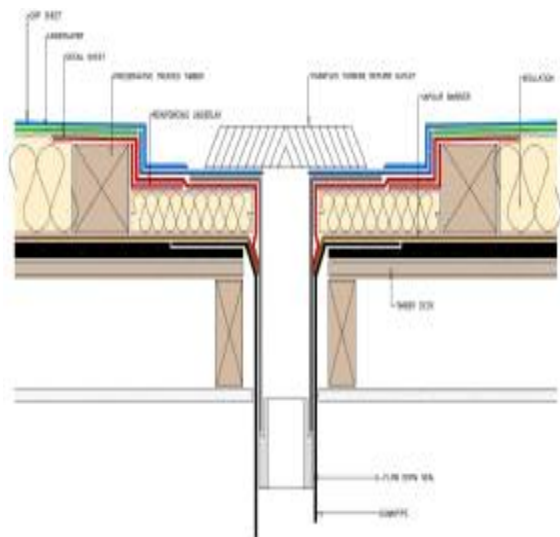
These repairs will have a limited lifespan and will not address the inadequate drainage design or long term break down of the roof covering which is now at an advanced stage in areas.

Medium Term Renewal

The medium term renewal option would be to renew the roof covering with a new modern membrane laid over new rigid insulation boards, specification photo below. This system would be laid over the existing asphalt roof covering.

The new membrane would have an expected life span of a minimum of 20 years, with the thermal performance of the roof improved by the new insulation.

As part of the works the profile of the roof will be modified to attempt to improve the drainage of water from the roof into the outlets. However as the new roof covering is being laid over the existing roof the extent to which this can be done will be restricted by the profile and thickness of the existing asphalt roof



covering. In addition any underlying defects in the asphalt roof covering will not be corrected. It is likely that the existing asphalt will be in poor condition given previous decisions to overlay with felt.

Long Term Renewal

The long term renewal option would be to fully strip off the existing roof including the asphalt roof covering and install a new modern roof covering over new insulation boards fixed to the roof deck. This system would be the same as that proposed in the medium term option. Again the roof covering would have a minimum life span of 20 years and the thermal performance of the roof would be improved.

By removing the existing roof covering it will be possible to improve the drainage profile of the roof to a greater degree, so reducing further incidents of water ponding. It will also be possible to improve the detailing of the roof around outlets and penetrations such as soil stacks.

Due to the presence of a fire escape route across this flat roof it is considered especially important to reduce incidents of water ponding with the risk of it freezing and becoming a slip hazard. It is therefore recommended that the long term repair option is considered as the most suitable option for this roof.

8.0 HEATING & VENTILATION

8.1 Introduction

In 2012 Gleeds Building Surveying Ltd commissioned a report into possible revenue cost savings and Energy Reduction measures in relation to the production of heat and domestic hot water within the flats at Granby House. The building is provided with incoming electrical services and mains cold water, but no gas is currently installed at the site. The main building is provided with a three phase incoming electrical supply and each individual flat is provided with a single phase sixty three amp supply provided by the district network operator. Heating is provided by 'off peak' electric storage heaters with hot water provided by an electric hot water storage cylinder.

The following issues were noted with the current arrangements:

- Occupants have complained that for the majority of time the rooms are cold and they need to supplement the storage heaters with electric panel radiators. In particular residents are cold in the evening when the heaters have lost their charge.
- There is a general lack of control of heating in shared areas leading to complaints of overheating.
- The electric storage heaters are at the end of their economic life leading to a reduction in efficiency.

8.2 Selection of Heating Systems

To resolve these problems the following alternative solutions were considered:

- Installing new electric storage heaters.
- Installing an individual gas combination boiler in each flat.
- Installing a communal gas central heating system.
- Installing a communal biomass boiler system.

These systems were considered in terms of the payback on the capital expended, future maintenance requirements and also usability for the residents. The table in Appendix I is extracted from the previous report and shows estimated payback period for each type of system.

The installation of replacement electric storage heaters has been discounted as this option will not address the existing controllability issues with the heating.

It is also noted that the Biomass boiler payback relies on the renewable heat Incentive fund which is an external funding payment. This revenue stream is therefore considered less secure as it is vulnerable to government policy change.

Individual gas central heating boilers in each flat have also been discounted. It would be difficult to install a new individual gas supply to each flat without an unreasonable amount of gas supply pipework. There would also be an increased maintenance requirement for the council to access each property annually to carry out a landlord's gas safety inspection.

The section below will therefore assess the feasibility of installing a new heating and domestic hot water to each flat, served via three new central gas fired boilers. This system will have the following benefits:

- Reduce call-out and repair costs associated with servicing and maintaining the existing antiquated electric storage heaters.
- Reduce energy bills.
- Encourage tenants to use the heating regularly and maintain consistent temperatures within the flats thereby alleviating issues associated with condensation and subsequent black mould growth.

8.3 Gas supply

Although gas is available to the properties which surround Granby House there is currently no gas supply to Granby House.

Since it is being proposed to install a communal gas boiler system it will be necessary to install only one gas supply pipe to the building.

This supply would be of sufficient size to meet the buildings calculated supply requirements. It would feed a communal gas metre located on the gable end of the building facing Norman Way. A supply pipe would then run from the metre to the new gas boilers.

On installation of the gas supply pipe and metre MBC would be required to select their preferred gas supply company. If they already have an existing contract with a supply company this supply could be added to that contract, subject to its terms and conditions.

Gleeds Building Surveying Ltd have contacted an independent gas installation contractor and have received a budget estimate for this gas supply. The cost is inclusive of installation of the metre, gas supply pipe and metre housing. In addition it includes any excavations, backfilling and road closures required to complete these works.

8.4 Plant Room

It is proposed that the communal gas fired boilers will be located in a single central plant room. Three options have been considered for forming this plant room. These can be summarised as:

- Converting an existing communal bathroom into a plant room.
- Rebuilding the existing redundant external bin store to form a plant room while installing a new cylinder in the existing internal bin store area, see adjacent.
- Constructing a new plant room externally.

The table below provides budget costs for each of these options, consisting of:

Option A – Convert existing bin store

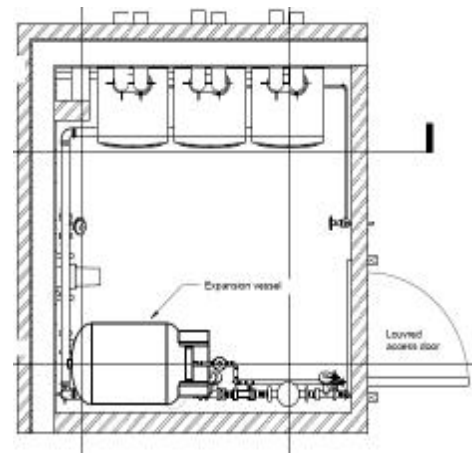
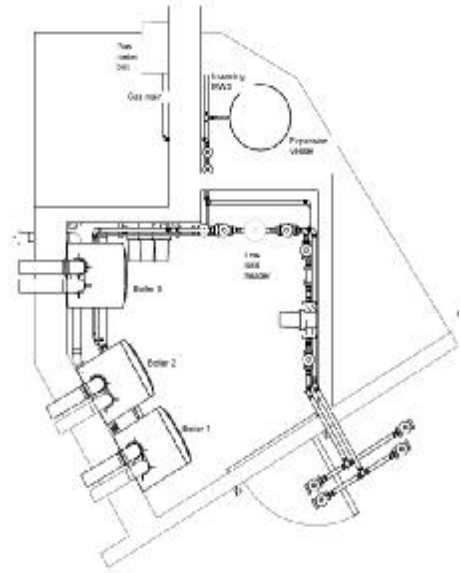
- Reconstruct external wall
- Construct new roof including rain water goods
- Break through and install new fire door to internal corridor

Option B – Construct new bin store

- Form foundations and construct new perimeter walls
- Construct new roof including rain water goods
- Lay concrete floor slab
- Break through and install new fire door to internal corridor

Option C – Convert existing bathroom, see adjacent

- Use already converted old bathroom (see Section. 5.0)
- Install new fire safety door



Having considered these options it is recommended that an existing bathroom is converted into a plant room. However this option is subject to the council's operational requirements.

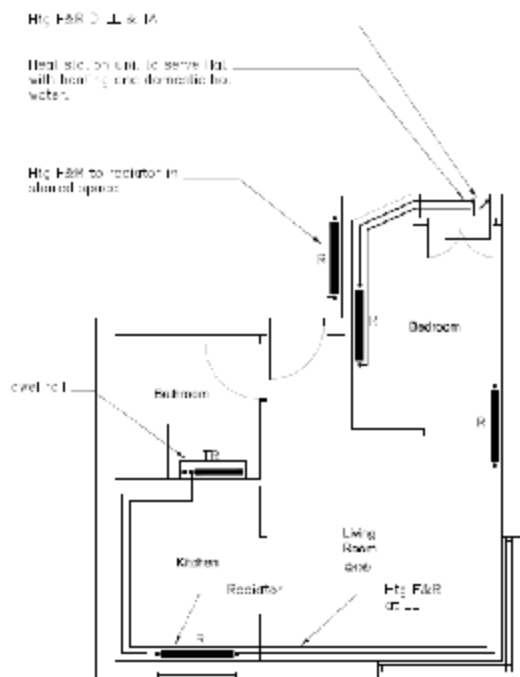
8.5 Heating and Hot Water Distribution

Primary heating mains could be routed at high level in the ground floor corridor to each vertical service riser, feeding each flat.

Domestic hot water can be generated in a small cylinder as part of a heat station unit, generated from primary heating mains; see adjacent. This heat station would need to be located in the existing storage cupboard within each resident's property, an allowance has been made within costings for the construction of a new housing cupboard should the existing space not be adequate.



Alternatively it would be possible to generate domestic hot water centrally and to distribute it to all parts of the building. This would however necessitate long lengths of pipework causing a heat loss and finding satisfactory space could prove difficult. This solution would also be difficult to meter should this be a requirement, please see Section 8.6.



Gleeds Building Surveying Ltd have measured the standard flat type found at the site and marked-up a notional heating layouts, showing pipework routes and radiator locations, as seen adjacent. The communal area heating layout can be seen in Appendix K.

8.6 Metering

It is proposed that each flat will be individually metered within the communal system for the heat that they use. This metered would form part of the function of the heat station outlined above.

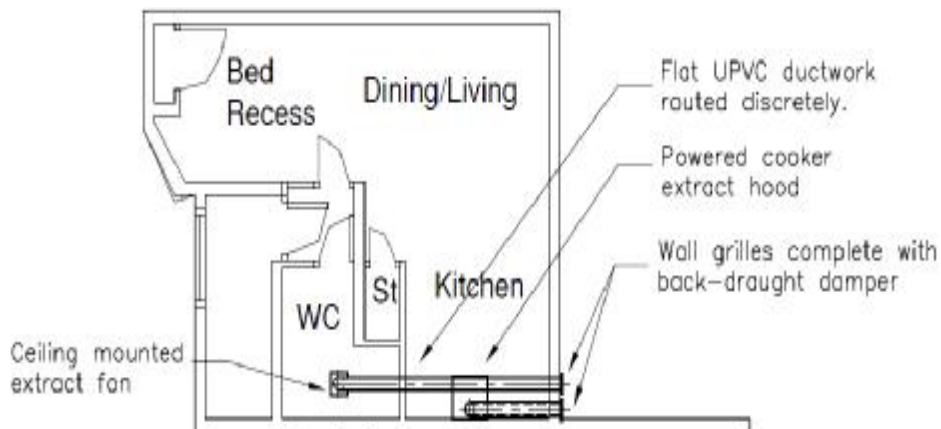
If a lower cost option is selected and a heat station or similar is not installed this will preclude the option of individual metering. Should the council wish to charge the residents for their heating and hot water they will have to use a service charge or similar un-metered system.

8.7 Mechanical Ventilation

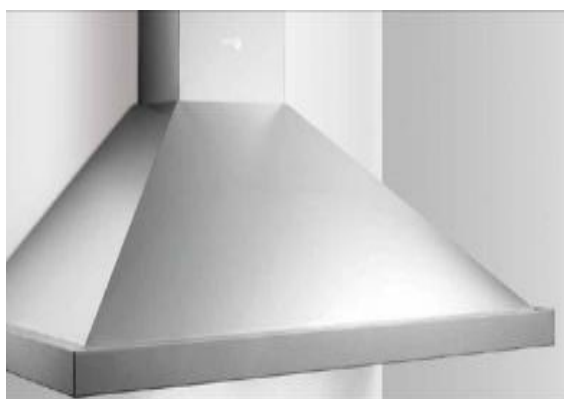
As part of these proposals, Gleeds Building Surveying Ltd have also evaluated the possibility of installing new localised mechanical extract systems within the resident's bathrooms, kitchens and the communal laundry. This removal of moisture at source will assist in mitigating widespread condensation problems within the flats as identified within the building condition survey.

It is recommended that an appropriate cooker hood should be supplied and installed to each cooker location, complete with extract fan and UVPC ductwork. This allows for moisture and odours generated by the cooking process to be discharged to outside rather than retained within the property. To minimise the aesthetic impact to the residents a rectangular pre-finished white uPVC ducting system, fitted tight to the ceiling, is proposed in differing sizes throughout to suit the ventilation requirements.

Similarly, an extract fan should be located in each toilet, bath and shower area, to discharge the moisture generated direct to outside, as seen in below proposed layout. The extract unit is proposed to be controlled in line with the light switching and complete with run over timer. All ventilation systems should be complete with back draught dampers designed to deal with adverse wind pressures and appropriate external wall grilles.



To adequately serve the extra needs of the driers in the laundry room, it is recommended that a commercial system should be used. Each machine shall have an egg crate grille set over with vitiated air exhausted to the outside atmosphere through a range of ductwork and extract fans. The system should also be complete with back draft dampeners and louvres.



9.0 WORKS OUTSIDE THE SCOPE OF THIS REPORT


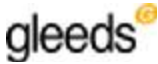
The condition survey carried out refers to the specialist services within the building which, while visually inspected, require qualified specialist testing to determine their condition, compliance and remaining life cycle. These services include:

- Fire Alarm System
- Closed Circuit Television System
- Tunstall Telecom Residents Call and Door Entry System
- Communal Television Aerial System
- Telephone Connections
- Waste Disposal Systems e.g. Bin Chutes
- Laundry Equipment
- Communal Small Power Distribution Systems
- Existing hot and cold water plumbing
- Passenger Lift

Works to these services are outside the scope of this report. However, it is recommended that assessments are commissioned to these services prior to works being carried out.

If any upgrade or replacement works are planned to the above services it is recommended that these works are carried out at the same time as any works included within this report. Carrying out works to these services in the short to medium term will disrupt any new decoration or other works in the communal areas. This approach will not represent value for money for MBC.

A forecast project programme for these works can be found in Appendix N. The key milestone dates are summarised below and are subject to further discussions with Melton Borough Council.

 	
MELTON BOROUGH COUNCIL	
Summary of Key Milestone Programme Dates	
* It is assumed that works are to be undertaken during normal working hours	
* Programme dates subject to further discussions with Melton Borough Council and local residents	
Key Milestone	Date
Board Approval to Works	Friday 20th March 2015
Gleeds Appointment	Monday 23rd March 2015
New Gas Supply Application	Friday 10th April 2015
Design Development	Friday 1st May 2015
Board Approval to Proceed to Tender	Friday 8th May 2015
Gas Supply Install	Friday 10th July 2015
Contractor Appointment	Friday 17th July 2015
Contract Start Date	Monday 10th August 2015
Contract Completion Date	Friday 6th November 2015



Appendix A

Short Form Condition Survey



Appendix B

Heating and Hot Water Solutions Payback Periods (2012)



Appendix C

Heating and Hot Water Drawings



Appendix D

Forecast Project Programme