



RIDGE

**58 – 108A REGINA ROAD SOUTH
NORWOOD SE25 4TT – TOWER
BLOCK SURVEY
CROYDON COUNCIL**
September 2021

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1. EXECUTIVE SUMMARY

Ridge and Partners were appointed on 14th May 2021 to undertake a targeted Survey of 58-108a Regina Road, South Norwood, SE25. The objective of the survey is to summarise the condition of the block and provide sufficient information in order to inform Croydon Councils investment strategy for the block.

The building was surveyed by representatives of Ridge and Partners on the 19th August 2021 and 20th September 2021.

58 – 108a Regina Road, South Norwood, SE25 is a 11 Storey (Plus Ground) block consisting of 44No flats. Each floor contains 4No, Two-bedroom flats. The block was constructed in 1964 by Messrs Wates.

We have recommended remedial works to the block within Section 17 of this report. We have provided cost and programme options within Appendix 8 & 7 respectively, i.e., refurbishment works with and without residents in situ, as well as a high-level option for redevelopment of the site.

Please note: We understand a number of the recommendations within the FRA's have been completed, however, we have not been provided with a schedule of the works executed or certificates of compliance for the works completed. Until such time as this information is provided, we will retain the foregoing within the report.

We have not undertaken a full HHSRS assessment and would recommend that a full assessment is undertaken in order to understand the rating per dwelling including assessing the occupants and occupancy levels. We have undertaken a high-level assessment of the whole block and not specific dwellings. None of the categories within our assessment were classed as Severe (Class I).

We believe that building would fail Decent Homes Standards, due to one of the four criteria not being met.

Within the limitation of this report, surveys and information reviewed to date including recommendations/statements, we do not believe that block requires vacating and decanting.

2. INTRODUCTION

Ridge and Partners were appointed on 14th May 2021 to undertake a targeted Survey of 58-108a Regina Road, South Norwood, SE25. The objective of the survey will be to summarise the condition of the block and provide sufficient information in order to inform Croydon Council's investment strategy for the block.

The building was surveyed by representatives of Ridge and Partners on the 19th August 2021 and 20th September 2021.

3. BRIEF

The client's brief was confirmed as follows and Ridge and Partners offer against the foregoing (Appendix 1). The brief has been refined during various meeting since the original brief:

Croydon Councils Brief

Phase 1 - Information Gathering

Appoint a Technical Specialist to undertake full condition surveys across all 26 Tower Blocks in partnership with other services as required.

Undertake a full desktop review of all data that the Authority currently has in relation to the building fabric, compliance, health and safety, repairs data planned works across the 26 tower blocks.

Surveys will review and confirm the following:

1. Structural integrity of the building
2. General condition of stock and key components (Decent Homes Standard)
3. Fire safety requirements
4. General compliance, health and safety (HHSRS)
5. Collation of available statutory certification and documentation

The key outcome of this first stage is to understand the type, urgency, volume and cost of works that need to be undertaken across the estate.

Outline Services Brief

The brief was further developed and confirmed as follows:

- Undertake a full desktop review of all data that the Authority currently has in relation to the building fabric, compliance, health and safety, repairs data planned works across the 26 tower blocks. Noted: the initial piece of works will be required to 5/6 blocks
- Surveys will review and confirm the following:
 - Structural integrity of the building
 - General condition of stock and key components (Decent Homes Standard)
 - Fire safety requirements (from existing information no surveys are required)
 - General compliance, health and safety (HHSRS)
 - The key outcome of this first stage is to understand the type, urgency, volume and cost of works that need to be undertaken across the estate.

We have interpreted the following deliverables from the outline services brief section above and propose the deliverables as follows:

- Reconfirm the deliverables and brief.
- Undertake a full desktop review of all data that the Authority currently has in relation to the building fabric, compliance, health and safety, repairs data planned works.

- Undertake a Building Survey – We consider this to be the envelope i.e., Roofs, Rainwater Goods where visible, External Walls and Windows. Communal areas but excluding external landscaping.
- Inspections within dwellings will be required to achieve a portion of the brief, these tasks will focus on windows, general condition of the visible areas of the properties i.e., walls, ceilings, floors, sanitaryware, kitchens and general comments on services.
- Undertake a structural inspection which consists of a site visit, desktop study of the client held record information make recommendations and report.
- Review properties in relation to HHSRS compliance (however this will not be a full assessment and will exclude biocides, carbon monoxide and fuel combustion products, lead, radiation, uncombusted fuel gas, volatile organic compounds crowding and space, domestic hygiene, pests and refuse, food safety, personal hygiene, sanitation and drainage, water supply, flames, hot surfaces etc, collision and entrapment, explosions, position and operability of amenities etc etc) and decent homes standards
- Summarise the fire safety actions within the Type 4 FRA reports previous undertaken.
- Provide outline budget estimates of costs.
- Provide a clear conclusion with recommendations.
- The deliverables will be summarised within a report format, which will include observations and recommendations for remedial works.
- Note: The meetings/surveys will be undertaken in accordance with the current Ridge and Partners return to work/remobilisation plan and government guidance in respects of Covid 19.

The brief was extended on the 30th June 2021 to incorporate the provision of a MEP inspection within a selection of dwellings

4. PROPERTY DESCRIPTION

58 - 108a Regina Road, South Norwood, SE25 is a 10 Storey (Plus Ground) block consisting of 44No flats. Each floor contains 4No, Two-bedroom flats. The block was constructed in circa 1964 by Messrs Wates.

The four flats open directly onto a lobby with a separated stairwell. The lobbies are served by lifts that alternated so that only one lift stops at each floor above ground level. The lift did not extent to the tenth floor. The block has one central core.

Bin chutes are located within the lift lobbies. A roof top lift motor room and water tank room are accessed from a secured section of the stairwell from the tenth floor. The roof space is enclosed by a profile steel clad. We believe the electrical supply enters the building through an intake room located on the ground floor, adjacent to the bin store. The intake room is accessed off the main stairwell.

The building is of concrete framed construction, with all floors and external walls assumed to be formed of reinforced concrete. The block is of Large Panel System (LPS) construction, which is a form of construction where large storey height pre-cast Reinforced Concrete panels are assembled together on site to form the buildings' structure. This was a very popular method of construction for council housing in the 1960's and 1970's. LPS buildings were based on the Bison method of construction. The original building elevations would have been finished with exposed aggregate cladding panels but was refurbished in 1998/2000 with the building provided with mineral wool insulation and metallic cladding system, double glazing and profiled metal roof. The building is provided with concrete stairs, two lift shafts (which service alternate floors and separate refuse shaft which is accessed off the stairwell at each half landing level).

5. TENURE

The building occupancy consists of:

Tenants: 43 No

Leaseholders: 1 No

6. BUILDING SURVEY

6.1. Main roof

The main roof and lift motor/tank room areas are covered in profile metal sheeting with detailing to suit (Appendix 4 – Langley Water Proofing Report).

The main roof is profile sheet covering which is supported on a metal subframe. Beneath the main roof is the original flat roof area, which is now an enclosed space. The profile metal roof creates a cold deck roof construction. The profile sheet covering has been designed as the primary waterproofing layer with the rainwater disposal extended from the main roof down through to the outlet positions within the original roof level.

The main profile sheet covered roof at 58-108a Regina Road is a profile metal sheets, laid to falls and discharging to a central valley gutter. The roof at 58-108a was noted to have received liquid coating repairs to joints, the central gutter was noted to be ponding with miscellaneous debris at the base, penetrations through the copings and remedial work required to the access hatch.

Intrusive investigations and a core sample have been undertaken confirming the following:

- Below the main profile sheeting the following construction was noted: insulation bonded to cement boards (circa 50mm),
- surface liquid coatings,
- waterproof build up,
- insulation – fibre board (20mm),
- expanded polystyrene insulation (50mm),
- vapour control layer – bituminous
- and un-screeded concrete.

The existing roof area, although suffering from a lack of maintenance, does not appear to be affecting the properties/dwellings below. However, the current roof design below the profile sheet covering is a challenge to maintain, with multiple layers over the original roof surface. And water sitting within the down pipe junction at flat roof level.

The specialist roofing suppliers has undertaken a U Value calculation and believe the current arrangement to be approximately 0.32 W/m²K.

Approved Document L1B Conservation of fuel and power in existing buildings: requires that (when re-roofing), the existing roof construction must achieve the threshold U-value of 0.35 W/m²K or better. If the threshold value is not achieved, then the roof must be thermally upgraded to meet the current required maximum U-value of 0.18 W/m²K.

The current U-value of the main roof is circa 0.32 w/m²K which is within the threshold U-value of 0.35 W/m²K and should be considered adequate. However, where moisture has been detected within the insulation zone, this area is unlikely to be achieving said U-value.

We recommend that the existing profile sheet covering to the main roof is removed and the original flat roof covering stripped and new flat roof covering provided to comply with the current building regulations 0.18 w/m²K.

We also believe that the existing rainwater goods should be surveyed, once access is available to the vertical runs. Allowance will be made for a CCTV survey and remedial works.

6.2. Elevations

The existing elevations have been over clad. Prior to over cladding the external wall make up would have been typically formed from two >100mm leaves of Reinforced Concrete filled with insulation (typically EPS or XPS). The cavities were generally 20mm wide, but this can vary across the different manufacturers.

The composition of the over cladding system has been derived from record drawings and the results of the BB7 EWS1 report dated the 30th April 2021 (Appendix 5) and is summarised below (we have extracted general descriptions for the two main wall types).

Ground Floor Level - The system was found to be:

10mm render

100mm PIR insulation Euroclass E combustible thermoset insulation

130mm solid concrete. A hole was drilled through the concrete to determine the thickness; however, it could not be further determined what was behind the concrete without potentially compromising the integrity of the structure and causing damage internally. Based on the style of construction the LPS panel would be substantially larger than 110mm. This was also confirmed based on a view underneath the external walls at ground floor level. The EPS exists at all points on the ground floor level and is continuous in nature. The system returns into the bin store and also the buildings entrance.

4th Floor Level - The system was found to be:

50mm metal cassette panel cladding formed of 5mm aluminium.

40mm cavity

100mm mineral wool

130mm solid concrete. A hole was drilled through the concrete to determine the thickness; however, it could not be further determined what was behind the concrete without potentially compromising the integrity of the structure and causing damage internally. Based on the style of construction the LPS panel would be substantially larger than 110mm.

Based on the information collated by BB7 and the repairs history, we noted the following defects:

- Water ingress through the cladding system
- Potential cold bridging where insulation has been removed for ductwork and the like.
- Failing mastic joints
- Back falls to the ledges formed around window openings etc
- Ground floor level render
- Signs of previous concrete repairs to the LPS panels

Please note the wall U Value, which were current at the time of over cladding would have been 0.45 w/m²K, whereby the current regulations are 0.28 w/m²K.

We believe that based on our current understanding of the composition of the Cladding system that consideration should be given to renewal in its entirety, to address all of the issues with the envelope including the concerns noted later. **Note: Allowance will be made for two options, insulated render and brick slips replacement system at Croydon Council request.**

Please refer to the Fire Risk Assessment section of this report for comments in respects of the cladding system.

6.3. Windows

The windows are predominately double glazed UPVc Tilt and Turn windows to the dwellings.

The common parts also provided with UPVc window infill panels with double glazed side hung casement windows, AOV's and insulated panels.

The double-glazed windows to the dwellings were noted to have cavities of approximately 12mm. With a U Value of between 3.0 – 3.3 w/m²K, dependent on the final specification at that time, the current building regulations requirements are 1.6 W/m²K for an existing building.

The window inspected were noted to have the following defects:

- Stiff and defective opening mechanisms
- Defective window hardware
- Failing gaskets and seals around windows
- Defective locking systems
- Failing glazed units
- Poor design relating to the corner window units within the kitchens, which clash when opened (tilted or fully opened) at the same time
- The large sashes were around 955mm x 1060mm (typical maximum sizes dependent on the brand used, however 1500x1500mm is a general guide as a maximum, therefore the windows are in the upper range)
- Heavy to operate tilt and turn windows
- Anecdotal evidence of windows allowing water ingress.
- Cracked glass pane to Ground floor flat.

The communal windows at each floor level within the lift lobbies are set with UPVc frames with insulated panels between up to around 1300mm above floor level, with central AOV (which could not be tested at the time of our inspection) in a metallic finish. The communal windows tested were in a variety of conditions, however the following defects were noted:

- Stiff and defective opening mechanisms
- Defective window hardware
- Failing gaskets
- Defective locking mechanism
- Failing glazed units
- A number of side opening casements had been replaced

UPVc windows typically have a life expectancy of between 20-35 years, dependent on the product and maintenance regime. Based on the sample areas inspected we believe that the windows are at the end of their affective life and would benefit from renewal. **Note: At Croydon Council request further cost options will be provided for aluminium double glazed and aluminium triple glazing.**

Note: There were a number of vents noted to the refuse chute areas and at the head of the stairs. Although they could not be tested at the time of our inspection.

Please refer to the Fire Risk Assessment section for comments in respects of the AOV and window infill panels.

6.4. Common parts

The refuse chutes and hopper were not inspected in detail during these surveys.

Although a number of repairs were noted to seals around chute hoppers. Access was not available to the paladin store at the time of our inspection.

Allowances will be made for a detail's specialist survey and remedial works.

6.4.1. Doors

There are several different door types present to the block which can be summarised as follows: hardwood block main entrance doors, flat entrance doors (of a variety of different types). Glazed panelled lift lobby doors, set within glazed timber screens, glazed panelled refuse area doors and a variety of timber communal cupboards.

The front entrance doors are a combination of composite doors, timber door blanks and a limited number of UPVc panelled doors. The front entrance doors, where inspected, appeared to be of serviceable condition, however, we were unable to verify that they were of the appropriate fire rating. It is also presumed that UPVc panelled front entrance doors and timber door blanks would not be FD30s. At the time of our inspection the fanlights had all been sealed over with presumed Fireline plasterboard (pink) with mastic (intumescent?) to the perimeter as a temporary repair.

We noted on some of the composite front entrance doors, the hinges were marked with 'Masterdor'. Doors by this manufacturer are known to not perform to the specified/advertised fire resistance. (Please refer to the Fire Risk Assessment section for further details.)

The communal main entrance door to the block is a PPC finished metal door with glazed sections and a stainless-steel kick plate. At the time of our inspections and various ad-hoc visits the door was noted to be in serviceable condition and operation, however beginning to rust at the bottom. The rear entrance doors to the block were noted to be a solid door blank and would benefit from redecoration.

The communal lift/stairs lobby doors and screen are Georgian wired glazed panelled doors, set within timber Georgian wired glazed screens. At the time of our inspection the fanlights had all been sealed over with plasterboard which we have assumed to be Fireline (pink) with mastic (intumescent?) to the perimeter as a temporary repair. There were a number of high-level asbestos panels noted to the screens. The doors had all been lipped with additional timber (conceivably to reduce gaps to the perimeter) and provided with intumescent strips and smoke seals with some noted to be missing. They appeared to be recently repaired, however not redecorated and we noted 2no of the doors could not close adequately and comfortably within the frames. Due to age and miscellaneous repairs executed we are unable to verify that the doors and screen will perform to the required fire rating.

The remaining doors are timber doors (and frames) which predominately service riser and meter cupboards. The riser/meter cupboard doors were largely secured during our inspection, however,

there were a number which were open/unsecured and filled with combustible materials. The meter cupboard doors have had their fanlights sealed over with plasterboard which we presume to be Fireline (pink) as a temporary repair with mastic (intumescent?) to the perimeter. Due to age and miscellaneous repairs executed we are unable to verify that the doors will perform to the required fire rating.

We would recommend all the doors and screen are replaced with an appropriate fire rated door set and screen where required.

Please refer to the Fire Risk Assessment section for comments in respects of the fire doors.

6.4.2. Floors

The floors structures throughout the block are presumed to be reinforced concrete, finished with a variety of different materials. Within the majority of the common parts i.e., lift lobbies, refuse areas and stairs the floor finishes are vinyl tiles. The flooring within the common parts is generally in a fair condition. We were unable to confirm the slip rating and a number of areas were lifting. Patches were missing primarily around the base of the lift lobby doors where the floor mounted door closers would have been sited and at skirting levels.

The floor finishes to the stairs are the same as the lift lobbies with purpose formed nosing's. Other than a limited number of damaged nosing they were generally in good condition. Although we noted that there does not appear to be a significant Light Reflective Value (LRV) contrast between the floor coverings and nosings.

We would recommend that the floor finishes are replaced as part of any block refurbishment.

Please refer to the Fire Risk Assessment section for comments in respects of the floors.

6.4.3. Walls

We have presumed that the majority of the internal walls are of solid blockwork construction with the external walls formed from large panel external wall system. The common parts walls are finished with patterned plaster and a decorative coating which could not be identified but visually appeared to be in fair condition and well adhered although limited localised making good is required, as we noted areas of damage to the walls by the stairs, which appeared to be impact damage.

The communal decorations were generally in reasonable condition; however, localised remedial works are required.

Please refer to the Fire Risk Assessment section for comments in respects of the communal walls.

6.4.4. Ceilings

The ceiling finishes generally comprise a decorative plaster/artex and decorative coatings which could not be identified, but visually appeared to be in good condition and well adhered.

The communal decorations were generally in reasonable condition.

Please refer to the Fire Risk Assessment section for comments in respects of the communal ceilings.

6.5. Dwelling internal inspection

Ridge and Partners gained access to the following occupied dwellings 28A, 46A and 48A only one occupied dwelling, Flat 90A.

There was no water ingress to this property at the time of our inspection, however we noted mould around the windows of the bedroom and within the wardrobe.

Due to the limited number of dwelling inspected, we have agreed with and Croydon Council that they will base their recommendations on the overall condition of their stock condition data. However, we have summarised our views below.

6.5.1. Finishes

The finishes within 90A were variable in terms of decorative order but are noted as below:

Ceilings – The ceilings were a combination of plastered, papered and polystyrene ceiling tiles finished and generally in a condition commensurate with the age of the property. Although the decorative condition differed significantly. A number of the previous service voids were visible (which we presume serviced the original warm air heating system).

Walls – The walls where inspected were generally regular and appeared free from significant structural damaged. It should be noted that some of the flats flanking the lift shafts have had their walls lined with makeshift materials which should be investigated further to determine the reason for this.

Floors - The floors where inspected were general regular and free from significant structural damaged, however advised by the resident there are asbestos which have been covered with a laminate finish.

Doors – The doors within the dwellings were generally free from significant defects, the kitchen door does not appear to be a fire door. As these spaces are of special fire risk these doors should be replaced with appropriate doorsets with closers. This has been undertaken within some properties.

It should be noted that the properties are provided with sprinklers. The doors on the whole where inspected were not provided within self-closing devices, were missing ironmongery and are in a generally poor/fair condition. The screens between the entrance corridors and lounge may also not provide the required level of fire resistance and should be reviewed further.

6.5.2. Bathrooms

Th bathrooms were provided with pressed steel baths, vitreous enamelled WC pans (with various cisterns) and vitreous enamelled wash hand basins (with pedestals). The wall finishes were a combination of satin/eggshell paint finishes with tiling to the rear of the wash hand basins and perimeter of the baths. The bathrooms were generally provided with mechanical extraction (generally switched off) and heated towel rails to heat the spaces. The above ground service pipework also terminated behind the head of the baths within a service riser. We were unable to inspect these areas in detail.

Resident has advised there's a gap around the waste pipe of the WC and this allows a small discharge of waste when the toilet is being used.

Anecdotally we understand that there have been a number of leaks relating to the above ground drainage within the block over the years.

We would recommend a CCTV survey is undertaken to understand the condition of the soil and vent pipes with localised opening up to provide an understanding of the condition of the stacks within the dwellings.

6.5.3. Kitchens

The kitchens within the properties appear to have been replaced in recent years and are generally in serviceable condition, however, they have been cared for and maintained to different extents.

The kitchens are provided with chipboard carcass units with bullnosed laminate work tops and stainless inset sinks with chrome plated mixed taps.

The walls and ceilings are generally paint finished plaster or similar with ceramic tiled splashback to the perimeter of the worksurfaces.

The kitchens were noted to have the following common faults: poor cutting out of service runs through units, lack of maintenance or cleaning of kitchen units and services, no heating and mechanical extracts were of limited use/operation and were not maintained (They were often noted to be turned off).

6.5.4. High-level services review

Representatives from Ridge and Partners attended the block on the 19th August and 20th September 2021 to inspect the services within a number of dwellings. At the time of our inspection, we were able to gain access to 90A.

We understand that the natural gas was removed from this block some years ago and the primary services provided to the block are electric and water.

The condition of the dwellings visited can only lead to a simple conclusion that, with the exception of certain components, a complete building services refurbishment and modernisation programme is required throughout, with a clear 'whole building' strategy.

We noted that the electrical supplies to a number of the flats have been updated with newer consumer units and meters, however, the extent of the update seems to have stopped at the flat front door. Particular examples:

The electric storage radiators are either well in excess of their economic life or approaching it. These systems are complicated to programme for tenants to make sure they take advantage of night-time electrical tariffs. Without correct control, the heating will be very expensive to run.

Note: **At Croydon Council request cost options will be allowed from replacing all heating with a central heat pump system. The foregoing will require the overall fabric to significant improved in order to retain the heat generated.**

We were surprised that the kitchens did not have some form of heating as they are where most

moisture is created and are also located on the external wall. This and poor ventilation will lead to mould growth and deterioration of the fabric.

The towel rails are also at the end of their economic life and are not large enough to heat the bathroom space adequately, again leading to potential mould and fabric damage. Note: some were missing from the dwellings inspected.

The local kitchen and bathroom extract fans are all in poor condition and need replacing, perhaps modernised to a heat recovery ventilation system to reduce running costs?

Most of the flats have newer prepayment electrical meters and modern consumer units, however the extent to this work is not consistent – we found flats with original electrical switchgear.

The extent of the rewiring and conditioning of the electrical equipment should be tested and consideration to a complete rewire as part of a full refurbishment.

The rewiring should extend to replacement of all light fitting with modern LED equipment.

Adequate lighting should also be provided to the electrical cupboard and the utility cupboard.

It is unclear the fire alarm definition for the apartments, they have simple battery-operated surface mounted detectors, some not installed, in the entrance lobby. The strategy should be defined by a Fire Consultant and hard-wired detectors provided. Comments should also be sought as to whether further detectors should be provided for the kitchen and electrical cupboard.

New audio door entry handsets have been installed to each apartment, we are surprised that a video system was not considered, and the advice of the Crime Prevention Officer and Secured by Design advisor sought.

The building looks to have had 2 television systems in the past, one TV/FM and the other TV/FM/DAB. The central system should be tested and replaced with a new vertical core if necessary. **Note: Allowance will also be made for an IRS system at Croydon Councils request.**

It is assumed that individual tenants arrange their own telecommunications supply with some newer Openreach sockets in some apartments. Consideration of updating the incoming network to fibre should be given.

The central cold-water system and risers are not clearly labelled, and the central plant was outside of the scope of the survey. Consideration should be given to replacing the system entirely rather than connecting new sections of pipework to old risers.

The soil stacks are likely to be the age of the building and will have an increased risk of failure. Consideration should be given to replacing the entire systems and having the underground drainage CCTV surveyed and checked.

It was unclear from the survey inside just the flats how the residential sprinkler system operates, alarms or is isolated and whether the single head per room is sufficient coverage.

We also understand that there have been a number of service failures around the Cold-Water service which does not appear to be sleeved as it penetrates through the concrete floor slabs and