

Introduction

Background

- 1.1 AFH Shaw Sprunt were appointed by the London Borough of Camden to carry out a study of the Whittington Estate in accordance with the terms and conditions of our proposal to provide building consultancy services dated May 2001.
- 1.2 The client for these works is Clare Brennan of Camden Client Technical Services.
- 1.3 A Briefing Note was prepared for Camden Housing by AFH Shaw Sprunt following a meeting with David Gilles on 5 July 2001. It set out recommendations for further investigations and action on the estate in the light of the problems reported by residents and evident from site visits.
- 1.4 A Project Definition Report was issued in October 2001. It sets out the scope, quality, cost and time parameters for the design and construction of the project. It identifies the works and organisation structure as well as those constraints that may prevent the objectives being met and provides contingency measures where possible.
- 1.5 An interim report on the status of the surveys to date and the preliminary findings was provided in December 2001.
- 1.6 This report concludes the study and gives comments and recommendations on the structural and drainage investigations carried out which have now been completed.
- 1.7 This report contains information on reports commissioned by AFH Shaw Sprunt for the following:

Alan Conisbee and Associates
Martech Technical Services Ltd
Pinnacle Building Services
Waterflow Services Ltd

Structural Comment
Brickwork & Concrete Condition Survey
Drainage comment
CCTV Drainage investigations

Location

- 1.8 The Whittington Estate is located in London N19, and is abounded by Dartmouth Park Hill and Raydon Street, which forms its southern boundary. The Estate is further abounded by Highgate Cemetery.
- 1.9 The surrounding area to the south of the estate is residential; the Whittington Hospital is to the east on Dartmouth Park Hill and to the north of the estate. Highgate Cemetery is to the west of the estate and can be considered to have fairly dense overgrown vegetation.
- 1.10 The estate is within the Dartmouth Park conservation area but is not currently listed.
- 1.11 The Estate lies within the Kentish Town District of the London Borough of Camden.
- 1.12 The Estate consist of a number of blocks as follows containing 273 units :
- 1 – 81 Stoneleigh Terrace
 - 1 – 71 Sandstone Place
 - 1 – 24 Retcar Place
 - 1 – 97 Lulot Gardens
- 1.13 A location plan is included in Appendix 1.
- 1.14 The Estate is one of the last "modern" estates built by Camden in the late 1970's as part of the 1st phase of the Highgate Newtown Redevelopment. The estate was planned by Richard Gibson in 1967, redesigned in 1972 by P Tabori and K Adie and constructed in 1977-78. The insistent pattern of vertical cross walls and horizontal bands with upper floors set back is similar to Camden's Alexandra Road, but here the terraces are shorter and only 3 storeys high. The estate is constructed from unadorned pale concrete blockwork with concrete bands, it is understood that the concrete bands were not originally painted.

- 1.15 The Estate consists of a number of stepped structures linked by pedestrian walkways built on a sloping site. The pedestrian walkways run parallel to each other and are linked by sloping ramps. The walkways are at a higher level than the adjacent Highgate cemetery.
- 1.16 The blocks of flats have south facing cascading balconies. The walkways that separate the residential buildings are elevated above the garage access roads. The garages themselves are located at ground level, beneath the walkways. Light wells provide natural daylight and ventilation to the areas.
- 1.17 The construction of the residential blocks is reinforced concrete perimeter beams and slabs with blockwork party and cavity walls. Reinforced concrete columns support the elevated walkways.
- 1.18 The non-traditional construction and form of the buildings created a need for site specific detailing and these in turn will have generated a need for a high degree of quality control during construction.
- 1.19 The Estate is made up of 6 parallel rows of residential flats, linked together by pedestrian ramps. There are 8 parallel rows of garages accessed by four roads (Lulot Gardens, Retcar Street, Sandstone Place and Stoneleigh Terrace). The southern two roads have been blocked off and are normally inaccessible to residents and the general public. These two southern rows of garages are partly used as storage areas by the Council. The basement service yard area also houses mechanical and electrical plant rooms in addition to a refuse collection area.

Brief

1.20 Several issues have been identified as problematic on the Estate:

- Rising and penetrating damp at ground floor;
- Unsuitable detailing for balconies, which are located over the dwellings below;
- Failing and corroded pipework;
- Issues in respect of drainage generally;
- Concerns over the condition of the concrete structures on the estate.

1.21 A report has been presented by Alan Conisbee and Associates (ACA) in September 2001 containing a structural appraisal of damp problems in the garage undercroft. The contents of that report are incorporated within this report. The main areas of reporting were:

- Concrete repair and maintenance
- Areas of damp to residential properties
- Small retaining wall which is leaning.

1.22 Alan Conisbee and Associates carried out a visual inspection of the small retaining wall. A soil investigation was not considered necessary.

1.23 It was further recommended that a specialist concrete testing contractor be commissioned to carry out a concrete condition survey on the estate. Martech Ltd were appointed to carry out this survey in November 2001. This survey consisted of a representative survey of cavity walls and concrete elements of the residential buildings and the exposed concrete areas of the garage undercroft areas. Martech Ltd's report is included in a separate Appendix.

1.24 Martech Ltd also carried out an assessment of fire damaged concrete in the undercroft carpark which included coring and specialist testing of the concrete. Their report is included in a separate Appendix.

1.25 It was also considered that the Estate needed to be reviewed comprehensively and a co-ordinated programme of works carried out to rectify the defects. This included:

- Carrying out a survey of residents to establish the extent of the perceived problems on the estate;
- Carrying out a full structural survey of the estate, co-ordinated with the work being undertaken by Alan Conisbee Associates;
- Opening up of flank walls at ground level to establish the efficacy of the dpc's;
- Establish the effectiveness of the outlets and downpipes from the roofs and balconies, flushing and cleaning out, replacing and repairing as necessary;
- Carrying out CCTV survey of underground drainage in areas thought to be defective and produce a report detailing problem areas together with work and budget required to resolve the problems;
- Inspecting a representative number of windows in each property block and cataloguing defects with an estimate of costs for corrective action;
- Co-ordination and definition of the proposed scope of works and programme to take account of other initiatives by Camden such as PACE and environmental works presently being specified;

1.26 Developing a programme of works together with an elemental and block budget required to address the problems of the Estate in a comprehensive and complete fashion.

1.27 AFH Shaw Sprunt was further briefed in December 2001 to provide technical and strategic information on the existing estate wide lighting systems on the estate. The survey related specifically to the external estate lighting and lighting to the

underground car parks and workshop areas. Pinnacle Building Services were commissioned to carry out this survey.

- 1.28 Pinnacle Building Services were asked to survey the existing lighting systems and produce a report on the general condition and effectiveness detailing any improvement works that may be required to bring the existing systems in line with current requirements.

Site visits and inspections

- 1.29 AFH Shaw Sprunt met Ivan Boxall and Colin Cotton of the London Borough of Camden on the Estate on 9th October 2001 to discuss the problems mentioned previously and the scope of the further investigations.

- 1.30 A newsletter was sent to residents on 9 November 2001 informing them of the forthcoming investigative works and asking them to contact AFH Shaw Sprunt if they were experiencing any problems in relation to dampness or structural issues.

A copy of the Newsletter is included in Appendix 2.

- 1.31 Surveys of residents' properties were carried out during the week of 19-23 November 2001. Subsequent visits have been made after this date at the request of residents.

- 1.32 Any resident who did not reply to the initial newsletter was individually visited during the week of 19-23 November 2001. "Cold calls" were made on properties in Stoneleigh Terrace and Sandstone Place and flats in the vicinity of reported defects. Where residents were unavailable a further notification was posted through the letterbox.

- 1.33 A block by block breakdown of the inspections is given in Appendix 3.

1.34 A summary of the findings is as follows:

Stoneleigh Terrace – 81 Properties

Properties Inspected	22	27%
Balcony leaking	13	16%
Damp (not inc in above)	5	6%
Windows ave to poor condition	8	10%

Retcar Place – 24 Properties

Properties Inspected	3	12%
Balcony leaking	2	8%
Damp (not inc in above)	0	0%
Windows ave to poor condition	8	33%

Sandstone Place – 71 Properties

Properties Inspected	5	7%
Balcony leaking	2	3%
Damp (not inc in above)	3	4%
Windows ave to poor condition	2	3%

Lulot Gardens – 97 Properties

Properties Inspected	2	2%
Balcony leaking	0	0%
Damp	0	0%
Windows ave to poor condition	0	0%

Total Survey – 273 Properties

Properties Inspected	32	12%
Balcony leaking	17	6%
Damp (not inc in above)	8	3%
Windows ave to poor condition	18	7%

- 1.34 It is worth commenting on the low response rate to newsletter and subsequent visits to the Estate including door knocking process. The low response level of residents requesting survey appointments could be as a result of general apathy or of satisfaction with their accommodation. Obviously in the absence of a conclusive visit it is difficult to confirm either. However there does seem to be a correlation between the problems with balcony detailing causing water penetration at Stoneleigh Terrace and the number of residents requesting inspections. The number of inspections carried out at Lulot Gardens was particularly low, but works to amend drainage details here seem to have already been carried out and no water penetration problems were found.
- 1.35 It is worth noting the general level of satisfaction expressed by those residents who were visited, even those with problems with their balconies. Residents expressed general satisfaction with the size and quality of the accommodation and the estate environment as a whole.
- 1.36 Further to site visits carried out by AFH Shaw Sprunt, Alan Conisbee and Associates visited the estate on 21st June, 26th and 30th November 2001. They inspected the public walkways, the garage access roads beneath Lulot Gardens and Retcar Close, currently used by the residents, and the two garage areas that the residents and general public do not have current access to, i.e., Sandstone Place and Stoneleigh Terrace.
- 1.37 Alan Conisbee and Associates did not carry out a detailed inspection of all the residential buildings on the estate nor carry out material testings but made general comments on the condition of the estate which have been incorporated into this report.
- 1.38 Martech Technical Services Ltd surveys were carried out between 26th November and 7th December 2001.
- 1.39 The external estate lighting survey was carried out during various visits to the estate during December 2001 and January 2002. The surveys were carried out

during daylight hours and at night to assess the impact of the existing systems under all conditions.

- 1.40 A light meter was utilised to measure the existing night time lighting levels to the main areas of the estate including the underground car park and workshop areas.

Alternative feasibility studies

- 1.41 There are currently two other feasibility studies being carried out at Whittington Estate by separate consultants :

- Levitt Bernstein are looking at the long-term uses of the garages including initiatives to bring some of them back into use and/or find alternative uses.
- Shillam and Smith are looking at community safety works to the garages and improving the estate lighting.

- 1.42 Contact was made with Alaster McEachern at Levitt and Bernstein. The scope of the study being undertaken by Levitt and Bernstein was discussed to ascertain any areas of overlap. Levitt and Bernstein have commissioned an engineer to produce a structural report on elements within the carpark area. They have noted areas seeming to require concrete repairs but have not commissioned a concrete survey. Their notes have all been based on a visual inspection.

- 1.43 Their recommendation with regards to alternative uses will be based on the problems of leachate within the undercroft areas being remedied. They have also noted defects to the existing drainage system and will recommend modifications but again these have been based upon a visual inspection and a drainage survey has not been carried out. We advise that although it was impossible for the feasibility studies not to overlap there has been no unnecessary duplication of works.

- 1.44 Shillam and Smith are looking at security arrangements generally on the estate but particularly with regard to access into the underground garages. Again, we advise that there was no unnecessary duplication of investigations.