

Zone 16

**BRITANNIA ROYAL NAVAL COLLEGE
DARTMOUTH**

**COMMODOR'S OSR AND COMMANDERS HOUSE
(To be read in conjunction with Volumes 1 and 2)**

**QUADRENNIAL REVIEW - AUGUST 1999
20346**

**BRITANNIA ROYAL NAVAL COLLEGE
DARTMOUTH**

**AUGUST 1999 - QUADRENNIAL REVIEW
COMMODORE'S OSR AND COMMANDERS HOUSE**

FOR:

BY:

an English Heritage approved specialist conservation consultant for
the Government Historic Buildings Advisory Unit.

AUTHORISED FOR ISSUE:- APPROVED

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Date: 27. 9. 99

A INTRODUCTION

A.1 Status and Occupancy

A.1.01 *Building Tenure*

Freehold MOD (Navy).

A.1.02 *Maintenance Responsibility*

Property Manager: Responsible for the care of the buildings using one or other of the WSM or EWC below, as appropriate.

Establishment Works Consultant (EWC):

Works Service Manager (WSM):

Responsible for general maintenance works as directed or required by the Property Manager

A.1.03 *Maintenance Standard*

In view of the listed grade of the buildings and the prestigious nature of the works of the college, the maintenance standard is classified "X" - exceptional.

A.2 Building History and Significance

A.2.01 Commodor's OSR:- Grade II*, SX8752 673 - First listed Grade II on 23 October 1972, upgraded to II* on 23 February 1994. D Block was added to the listing on the same date.

A.2.02 Commanders House - Grade II SX8752 673 - First listed on 23 February 1994.

A.2.03 The building significance and it's history is described generally under each Volume 1 and 2.

Commodor's OSR - Volume 1
Commanders House - Volume 2

A.2.04 Full descriptions of each of the properties, purpose and significance of each block are listed in their volumes.

SECTION B - CONDUCT OF THE INSPECTION

B CONDUCT OF THE INSPECTION

B1 Scope of the Inspection

B.1.01 The inspection was carried out in accordance with:

DEO (Works) Functional Standard 04 MoD Conservation Manual for Listed Buildings and Scheduled Monuments.

DEO Technical Bulletin 98/36.

DEO (Works) Specification 005, Issue 003, Amendment 1, Task 527 - Quadrennial Inspection by Specialist Conservation Advisors.

British Standard BS 7913:1998 Guide to the Principles of Conservation and Historic Buildings.

and

Government Historic Buildings Advisory Unit - The Care of Historic Buildings and Ancient Monuments Guidelines for Government Departments and Agencies Handbook.

B.1.02 The brief for this review report specified inspection of external walls and roofs and the internal areas have only been inspected where external inspection indicated possible structural problems. The brief required that this report reviewed the previous report (carried out in 1995). This report has therefore been carried out in accordance with Annexes A and B of the Defence Works Functional Technical Bulletin 96/19.

B.1.03 In general, inspection of the elevations to the buildings has been from the ground level, windows in buildings, staircases and readily accessible roofs where elevations are partly concealed. Parapet wall faces to roofs are included in the section on roofs. Roofs accessible externally from vertical steel ladders, internal from stairs and ladders have been fully inspected. However where access was not possible using some fixed means, the inspection was carried out from adjoining roofs, windows or ground as appropriate.

B.1.04 In accordance with the last report, internal spaces to pitched roofs have not been inspected except for any parts readily accessible. Parts requiring access through small openings, ceiling hatches, etc have not been inspected. Pitched roofs which have been repaired/reslated have not been inspected in detail. Visual inspection from the outside has not identified any distortions to roof planes and it is assumed that there are no major defects to the structures. However, it can be reasonably assumed that the defects to timbers identified in previous quadrennial inspections have not received attention.

B.1.05 All flat roofs, except those without access as described above, have been inspected and any work carried out since the last quadrennial inspection have been noted in the particular section.

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- B.1.06 There has been a significant programme of reslating and repair to pitched roofs and repairs to asphalt roofs in 1995. Any roof identified as included in this forward programme has been excluded from the detailed inspection (see particular roof areas).
- B.1.07 Woodwork or other parts of the structure which were covered, unexposed or inaccessible, etc were not inspected and therefore it is not possible to report that such parts remain free from defects.
- B.1.08 Flues, ducts or any other similarly enclosed areas, the access to which would have required tools (which could have caused damage to finishes or fittings) were not inspected and therefore it is not possible to report that such parts remain free from defects.
- B.1.09 Specialist inspection or testing was not carried out in respect of material used in the construction or services, including drainage.
- B.1.10 The inspection did not include examination of mechanical, electrical, telephone or drainage services.
- B.1.11 It is not envisaged that the report will be made available, in whole or in part, for use by a third party and will not hold responsibility toward any third party for the content therein.
- B1.12 **It is not intended that this document is used as a direct basis for instructing repairs. Rather, a detailed conservation schedule and specification must be prepared and used after due specialist consultation from an SCA or Conservation Term Consultant and following receipt of all necessary Clearance or Consent approvals.**
- B1.13 All works to include; general maintenance, investigations and major works, should only be carried out by suitably trained and experienced specialist conservation contractors.
- B2 Other Specialist Reports**
- B2.01 *Recommended Specialist Reports*
- B2.02 Preparation of a Conservation Brief or Housekeeping Manual by an SCA or Conservation Term Consultant is considered essential to the "housekeeping" maintenance and management of this historic structure. It is therefore strongly recommended, as per DEO Estate Development Group recommendation within Technical Bulletin 98/36 that a Conservation Brief; would "...provide useful additional guidance for responsibilities for routine maintenance and as such, represent a good long term investment. EDG, therefore, **encourages** the use of these discretionary documents on all listed or scheduled buildings".
- B.2.03 Advice on the content and format of a Conservation Manual may be found within Appendix 2 of the GHBAU "*Handbook*".

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B2.04 All works to an historic structure should be recorded in a Log Book to provide a continuous record and should be retained for ever as a permanent record of the building or site. Advice on the format and content of Log Books may be found within Appendix 3 of the GHBAU "*Handbook*".

B2.05 A Forward Maintenance Register should be prepared by the EWC in co-operation with the PROM and SCA to include all works recommended within the Quadrennial Inspection report. No work should be omitted simply because of doubt as to the availability of funds, since funding can only be allocated rationally if all genuine needs are known and prioritised. Should any works be deferred beyond the next 4 year period for financial or other reasons, the PROM should include such information in the annual return for the DEO *Annual Report Historic Buildings on the Defence Estate*.

B3 Additional Information

B.3.01 Previous Quadrennial Inspection Reports:

B.3.02 February 1995

B4 Drawings and Other Record Documents

B4.01 None provided at the time of inspection.

B5 Fire Officer's Report

B5.01 None provided at the time of inspection.

B6 Personnel

B6.01 This inspection was carried out by:-

B6.02 The personnel met during the inspection were:-

B7 Date of Inspection and Weather Conditions

B7.01 Inspections were carried out on 19, 20, 21, 22, 29 and 30 July 1999.

B7.02 The weather was dry and sunny with the occasional shower. The temperature was approximately 75°F.

SECTION C - WORK DONE SINCE PREVIOUS INSPECTION

COMMODOR'S OSR AND COMMANDERS HOUSE

C WORK DONE SINCE PREVIOUS INSPECTION

C1 Action on Previously Recommended Repairs

- C.1.01 A minimal number of repairs have been carried out from the last quadrennial inspection (these are listed below in C2.1).
- C.1.02 We also understand that both the Commodore's OSR and the Commanders House are due for redecoration in October 1999.

C2 Work Since Previous Inspection

Elevations

- C.2.01 Only minor repairs to painting, etc and only general repairs have been carried out to both properties since last report.

Roofs

- C.2.02 Only minor repairs to roofs and gutters have been carried out to the Commodor's OSR.

The Commanders House was re-roofed in 1996.

Internal Works

- C.2.03 Only minor repairs and general maintenance works have been carried out to both properties with the exception of part of the ground floor to the Commodor's House being redecorated in 1997.

SECTION D - FINDINGS OF THE INSPECTION AND GENERAL STATE OF THE PROPERTY

D GENERAL STATE OF THE STRUCTURE AND IT'S SETTING

D.1 Condition Category

D.1.01 The overall general condition of the various elements of the properties are considered to be good. Programmed works of repairs to elevations and repairs to roofs have been limited due to cost restraints. However, some areas still require maintenance.

D2 Summary of Finishing and General Soundness

Elevations

D.2.01 The elevations in total are in fair to reasonable condition. There are some minor areas of erosion and weathering of brick and stone (to a lesser degree) together with failure to the mortar pointing. There is also a comparatively small amount of unsympathetic mortar and brick repairs. However, this is not considered to be much more than cosmetic at this stage. A further programme of works should be set in motion for the elevations. Works can then be implemented at reasonably short notice, as and when funding permits. This should be proceeded by the careful preparation of repair documentation packages. These should be undertaken in full consultation with English Heritage and other appropriate bodies as necessary. Corroding metalwork within the structure is of some concern and is commented upon in detail within the report. Techniques such as cathodic protection should be investigated and discussed with English Heritage.

D.2.02 Windows and doors seem generally to be in fair to reasonable condition with exceptions noted within the report. It is essential that they are regularly inspected, repaired and painted. Varnish to the entrance doors is badly water stained in some areas and exposed timber is beginning to decay.

D.2.03 Gutters and rainwater downpipes are generally sound but again regular inspection and painting is required. Bearing in mind the number of trees surrounding the buildings, all outlets should be checked regularly but particularly at times of leaf fall. A number of hoppers are blocked and plant growth is visible.

Roofs

D.2.04 As far as the roofs are concerned, there are a few slipped slates and tingle repairs indicating the onset of nail "fatigue". However the general condition of the pitched roofs appears to be reasonable. The general condition of the flat roofs gives a little more cause for concern. This extends to include parapet walls and their copings, cover flashings and stepped abutment and chimney flashings.

D.2.05 Waterproofing of the structure is of prime importance and in this the roof coverings are paramount. This includes asphalt repairs/renewal, fitting of effective cover flashings over upstands, renewal of lead dpc's to dwarf cross walls, repointing of all defective coping joints and stopping holes around lightning conductor fixings. Failure of these elements is probably allowing water to get into the steel frame causing hidden corrosion. Eventually the corrosion manifests itself virtually on the external envelope as can be seen where there is movement of stonework to gables and spalling of brickwork facings to lintels over windows.

D.3 Degree of Deterioration In Relation to It's Age

Elevations

D.3.01 Generally all elevations have weathered the period of time quite well and it is only in recent years that pointing, failure of brickwork and stonework has started to occur more rapidly. This is partially due to the lack of maintenance in the past. The time has now come for these repairs to be carried out over the next 4 years to stop even further decay and breakdown of materials.

D.3.02 Exposed elevations have suffered somewhat more from deterioration, however sheltered areas have suffered more with staining and plant growth. This in turn is having an effect on the bricks and pointing. Where areas of water penetration has occurred due to these defects this will have a serious effect on the structure of the building and to maintain the buildings longevity and minimilisation of the erosion repairs are paramount.

Roofs

D.3.03 Old roof coverings have outlasted their useful life and slated roofs need repairing, asphalt roofs require renewal. Flashings, soakers, etc need to be checked , repaired and repointed. Roofs, gutters, valleys, etc must be maintained as water penetration will have dire consequences on the property both structurally and aesthetically. Overall the roofs have been renewed or repaired and are in good condition. However there are still a number of roofs which require replacing.

D.4 Appropriateness, Use and Intensity of Occupation

D.4.01 Both of the properties would appear ideally suited for the purpose of occupants with good accommodation to a well kept standard.

D.5 Adequacy of Maintenance and General Care of Buildings and Their Setting

Elevations

D.5.01 Maintenance of buildings of this age and construction as a rule is going to be quite high. Deterioration of stonework, brickwork, steelwork, woodwork, etc is inevitable especially where exposed to the elements as Britannia College is.

D.5.02 Stonework and handmade bricks despite some spalling are generally sound however damaged stone and brick must be cut out and renewed to ensure the longevity of buildings and their integrity. Water penetration within the structure will have dire consequences on the structural members within and eventually tendering them unsafe. Likewise mortar joints should also be maintained to ensure erosion of bricks and stonework does not occur.

D.5.03 Timber work and steelwork should be regularly maintained to minimalise decay. Exposed timber and steelwork will rot and decay if water penetration continues and cause further deterioration of the buildings.

- D.5.04 Brickwork and stonework should be regularly inspected ie every 6 months and so should decorations, woodwork and steelwork. All should be repaired/replaced without delay especially before the winter months set in.
- D.5.05 Maintenance is important and the time and cost restraints are, as a rule, the driving factor. A maintenance programme of repairs must be prepared and budgeting allocated accordingly. Due to the buildings setting, exposure to the elements, driving wind and rain, etc it is critical that the building is maintained watertight.

Roofs

- D.5.06 As per the elevations, maintenance of roofs is also of considerable importance. Although the longevity of the roof materials, ie slate, lead, asphalt, etc is quite considerable however maintenance of gutters, etc is very important, ie cleaning debris, leaves, etc from outlets. This would seem to only be carried out when there is a problem and not on a 3 monthly or 6 monthly basis (especially important during the autumn and winter months).
- D.5.07 The majority of roof coverings have been replaced or repaired over the past 10 years and we understand that it is programmed for further roofs to be replaced over the next 4 years. Renewal of roof coverings, valleys, etc is also important. Repairs are generally only temporary and just prolong the inevitable or long enough for the programmed replacement.
- D.5.08 It is also important for roofs to be recovered/renewed with similar materials to compliment the age of the building. If an alternative material is to be used it must be of a similar nature.
- D.5.09 Slipped slates should be replaced preferably with secret fixings and not tingles. Regular inspections of roofs should be carried out, ie on a six monthly basis and any repairs carried out.
- D.5.10 Gutters, downpipes, hoppers, etc should be cleaned out to stop water build up due to debris. This should be carried out on a 3 or 6 monthly basis especially during the autumn and winter months. Likewise any damaged pipes or gutters should be replaced.

Generally

- D.5.11 Due to the exposure of the elements being high adequate maintenance is vital. In general the past regime of maintenance and repair has been satisfactory but in a reactive nature. This should be of a proactive nature, ie dealing with a potential problem before it arises and not after the problem has occurred. Consequently programmed inspections and repairs are vital.

D6 Major Problems and Structural Defects

- D.6.01 Structurally the properties at present are good, sound and watertight. Over the past 8 years since the last two quadrennial surveys were prepared, replacement of roofs and brick walls along with the redecoration of timber and steelwork and replacement of windows has been carried out where necessary.
- D.6.02 There are still a number of roofs that require and need replacement within the next few years and a phased programme of these should be prepared. Ideally it should be considered that areas of bitumen felt roofs should be replaced with asphalt of a similar material to suit the buildings age.
- D.6.03 There is also concern over the defective joints to cornices and other ledges together with defective brickwork and spalling stone and mortar joints. Some repairs have previously been carried out using cement based mortar to pointing and this is out of character with the bricks and they should, in time, be replaced with a lime based mortar and hand made bricks.
- D.6.04 A detailed inspection of repairs to brickwork, stonework and pointing should be carried out and the replacement/repair of windows and cast iron fittings.

D7 Major Recommendations for Maintenance, Repair or Improvement

- D.7.01 List of "urgent" items are recommended for inclusion within this or next year's programmes rated Priorities A1, A2 or A3. (See Section F).
- D.7.02 There are three major items that are recommended to be completed, replacement of roofs, repair of brickwork, stonework and pointing and repair/replacement and redecoration of all woodwork and steelwork including windows, etc.
- D.7.03 List of "minor" items are recommended for inclusion within the next four year period rated Priorities B1, B2, C or D (See Section F).
- D.7.04 The MoD Conservation Manual requires the production of a "Conservation Brief" or Housekeeping Manual for larger and more important protected structures to provide the WSM, (and PROM) with an introduction to the WSM's responsibilities in relation to a protected structure and enable the WSM to "carry out sensitive" management and routine housekeeping maintenance in order to keep the structure in good condition and to prevent serious deterioration".
- D.7.05 The schedule of recommended works includes a basic minimum. It is strongly recommended that EWC's Forward Maintenance Register (FMR) and Planned Maintenance Programmes (FMP, PMP) make due allowance for such potential outlay.

SECTION E - RECOMMENDATIONS AND CLASSIFICATIONS OF MAINTENANCE PROPERTIES

CHIMNEY STACKS & ANY OTHER FEATURES

E FINDINGS OF THE INSPECTION BY ELEMENT

E1 GENERAL NOTES

The methodology used in this report is as set out below for each block in the relevant sections including the Chapel. The Commodore OSR is covered under a separate report:

- E1 General
- E2 Chimney Stacks and Other Roof Features
- E3 Roof Coverings and Elevations also Commodore OSR internal (by Block)
- E4 Landscaping Generally

Each of the above divisions is split up into further subdivisions of description and condition.

Repair works to elevations and roofs are related to key plans which accompany each block schedule.

Repair works, costings, priority and year are described under each building block in Sections F.

Photographs relating to each block are recorded in the Appendix by block.

EXTERNAL ELEVATIONS

GENERAL NOTE

The report on the elevations is split into blocks with each block have a general note on the description, condition, repair and recommendations.

Each elevational drawing has been noted with the main areas of defects and coded as follows:

- SB - Spalling Brickwork
- SS - Spalling Stonework
- DP - Defective Pointing
- C - Cracking

For cost, year and priority refer to Section F of this report.

Many small or obscured areas of walls of some elevations are not included due to their size or inaccessibility.

Elevations to each block should be referred to the key plan.

E2 CHIMNEY STACKS AND ANY OTHER FEATURES GENERALLY

E2.01 *Description*

Brick built chimney stacks serving boilers and heating units providing hot water and central heating serving the block. A number of chimney stacks are disused together with a further number which have recently been constructed for new boilers.

Chimneys are generally large in construction with one or more flues constructed within the chimney stack. They are of solid brick with appropriate damp proof courses, soakers and flashings incorporated within the structure to prevent water penetration.

E2.02 *Condition*

The general condition of the chimney stacks appear to be sound however due to the age of a number of stacks, the flashings and soakers are showing signs of age and some splitting to isolated areas. This in turn will allow water penetration into the roof structure and due to their location and position it was not possible during the inspection to ascertain whether leakage had occurred. Any suspect areas we felt may have a problem, were looked at internally to ascertain any damage.

Lead flashings, soakers, cavity trays, etc that are damaged require renewal with a minimum of Code 5 lead correctly chased and mastic pointed into the brickwork.

Disused chimney stacks need to be capped and vented at both the top and bottom to ensure continuous air flow or alternatively they are to be taken down subject to the permission of English Heritage.

Moss, lichen and plant growth are evident on the face of the chimney stacks, to some areas that are sheltered from the prevailing weather.

E2.03 *Recommendations*

It is recommended that all chimneys are thoroughly inspected with the use of a sky platform, if necessary, and areas of defective brickwork are cut out and replaced with new brick to match existing.

All areas of defective pointing should be raked out and repointed to a minimum depth of 25mm in a lime mortar.

Previous repairs in cement mortar should be cut out and replaced with lime mortar.

Disused chimneys should be capped and vented at the top and bottom to ensure a thorough free flow of air.

All defective lead flashings, soakers, trays, etc should be cut and replaced with new Code 5 lead correctly chased into brick joints a minimum of 25mm and mastic pointed accordingly, wedged and pointed accordingly.

COMMODOR'S OSR AND COMMANDERS HOUSE

Plant growth, moss and lichen should be cleaned off using an anti-fungicidal fluid and any defective bricks should be replaced as previously described.

Roof voids are to be inspected where chimneys pass through the timber structure to ensure that all decayed timber is cut out and replaced with new treated timber of similar size and section to that of existing.

E3.04 ROOF COVERINGS & ELEVATIONS

General Note

E.4.01 Each roof covering and elevation are described separately to each block giving condition and recommendations for repairs. Repairs described are to be read generally with the areas shown on the plans and roof layouts. General areas of concern are highlighted only on the plans and elevations.

E.4.02 Photographs of roofs and elevations are in the section for each block.

E3 - ROOF COVERINGS AND ELEVATIONS

COMMODOR'S OSR

ROOF

E3.101 Commodores OSR

Description

Area of roof is of a lead covering with standard roll joints laid to falls to lead box gutters with sumps and rainwater pipe above mansard roof. The central area of roof is surrounded on the east, south and west sides with mansard slopes in natural Delabole slate with three dormers on each face. Each dormer is topped with lead domed towers at four corners. A large central brick chimney stack containing flues serving the fires within the property. There is a central glazed lantern light provided to the main central staircase and galleries below.

Condition

Generally in good condition, however there are areas of lead that are showing signs of weathering and tiredness. Minor splits and cracks were evident. Some minor repairs have been carried out and from an internal inspection there is only one small area on the north east side that appeared to be leaking above joints between lead and the Delabole mansard slate roof. A number of slates have slipped and require refixing. Bricks spalling and minor pointing repairs were also noted to chimney stack.

Recommendations

Repair areas of defective lead to flat roof area in Code 7 lead.

Replace slipped slates with Delabole slates to match.

Check flashings around perimeter between lead flat and slate roof together with lead cover flashings around lantern light.

Redecorate lantern light and repair defective timber.

Cut out spalled brickwork and rake out defective pointing and make good.

E3.102 **EXTERNAL ELEVATIONS**

BLOCK Commodores OSR

Elevations 9-11

Description

3 storey stone and brick construction, stone to lower level and around windows, 2nd floor brick towers to corners and 3rd floor set into mansard slate roof. Lead turret roofs over towers. Steel windows gloss painted with timber to dormers in mansard roof. Corner tower to tank room and access to roof with top section.

Condition

Generally all in good condition, minor spalling of stone and brickwork noted and defective pointing to brickwork and stonework. Minor decay to timber dormers.

Repair Recommendations

- Cut out spalled stonework and brickwork, cut in new to match existing, repoint in lime mortar
- Rake out defective pointing to brickwork and stonework and point in lime mortar.
- Cut out defective timberwork, scarf in new and redecorate.
- Clean down steelwork to downpipes, gutters, ladders, etc, treat with rust inhibitor and redecorate.

E3.103 **COMMODORES OSR INTERNAL CONDITION**

Description

The Commodores OSR is a separate block attached to "B" Block and the chapel, projecting from the south east corner. The property is linked to the chapel and "B" Block and there is direct access to both.

The external elevations and condition have previously been reported on within this report.

Internally the property comprises of 4 storeys with galley, kitchen and stores to the lower ground floor, stair access to the ground floor which is level with the parade ground and the Commodores garden. This floor has long accommodation laid around a central staircase with the accommodation rooms off the hall. The accommodation comprises of living room, drawing room, dining room, day room, study, etc.

From the main hall to the first and second floors with galleried landings around four sides with bedrooms, bathrooms, WC, dressing rooms, etc off the landings.

Condition

The property internally is in extremely good condition and well kept. A number of rooms to the ground floor have been redecorated.

The only areas of defects noted were to two bedrooms on the second floor within the mansard roof area where staining of the ceilings was noted where leaks have occurred. When looked at from the exterior of the property we are of the opinion that this is probably due to slipped slates. Due to the height and difficulty in gaining access to the mansard roof areas, these slates have not been repaired.

Recommendations

Other than the replacement of slipped slates which have been allowed for within the roof report. Only repairs to plasterwork and redecoration of ceilings are required.

COMMANDERS HOUSE

E4 ROOF

COMMANDERS HOUSE

Description

E4.01 The general area of roof is a hipped slated roof with a central flat roof with lead roof over. Slates are cut at hips and eaves with a considerable overhang. Tall chimney stacks protrude from roof slopes generally at eaves.

Condition

E4.02 All roof slopes and lead flat roofs appear to be in good sound condition other than a few slipped slates. Access to the flat roof was not possible at the time of the inspection, but there was little evidence internally or any leaks. Minor spalling of brickwork and pointing to brickwork to chimneys.

Repair Recommendations

E4.03 Clean down roofs and remove plant growth, etc.

Replace slipped slates with Delabole slates to match.

Cut out spalled brickwork/pointing to chimney stacks.

Check flashing around chimneys and abutments.

Clean out gutters and downpipes generally.

E4 EXTERNAL ELEVATIONS

COMMANDERS HOUSE

Description

E4.05 Brick elevations in Flemish bond with brick soldier arches above windows. To main elevations around windows are limestone moulded columns and mouldings. Timber sash windows with cast iron downpipes and gutters together with large timber overhanging eaves and soffits.

Condition

E4.06 All generally in good condition. Minor areas of spalling brickwork and stonework noted. Some decay to pointing to brickwork and stonework. All joinery to windows and eaves/fascias, etc are generally in sound condition with good decorations, etc. Some rust/decay noted to cast iron gutters and downpipes.

Repair Recommendations

E4.07 Clean down walls and remove vegetation/plant growth.
Cut out defective brickwork/stonework and cut in new.
Cut out defective pointing and repoint.
Clean down woodwork and redecorate.
Clean down gutters and downpipes and redecorate.

E4 INTERNAL

COMMANDERS HOUSE

Description

- E4.09 Solid internal walls with plastered finishes and decorated. Plaster lathe ceiling, covings, etc all decorated. Timber moulded and panelled doors, architraves and skirtings. Solid tiled, wood block or timber floors all with carpeting or vinyl coverings over. Up to date electrical installation, kitchen and sanitary fittings with central heating.

Condition

- E4.10 All generally in good condition and decoration in order, no real defects noted. Minor cracking noted (shrinkage) to isolated areas. Internal decorations beginning to look a little tired but we understand that this has been programmed for October 1999.

Repair Recommendations

- E4.11 Complete internal redecoration.

It is understood that the property is to be completely rewired and re-plumbed together with a new central heating system in the near future.

SECTION F - RECOMMENDATIONS AND CLASSIFICATIONS OF PRIORITY

F: RECOMMENDATIONS AND CLASSIFICATIONS OF PRIORITY

F1 INTRODUCTION, SITE SAFETY, MAINTENANCE PRIORITIES & COSTING

Generally

The following recommendations / proposals are to be regarded only as strategic statements or brief summaries of the work; before any work is carried out, a detailed specification must be prepared, based on a thorough investigation of each component of the structure. Listed Building Clearance / Consent, will be required for any proposal to alter, extend or demolish any part of the structure.

Site Safety : CDM Regulations

Recent legislation places legal obligations on all concerned with the construction and maintenance of structures. The nature of such may involve additional risks associated with the historic nature of the building. The contractor should be selected by the client as being experienced and competent to carry out work of a historic nature and have proper resources to comply with Health and Safety requirements.

Interpretation of maintenance task classification priority

Annex E point 29.a.(1) of Functional Standard 04 *MoD Conservation Manual*, refers to the highest relevant maintenance task classification priority, A1, (known as Priority 1 in FS 04), as "unavoidable work ... which cannot be deferred without breaching statutory obligations,...".

Therefore all works necessary to stop deterioration of the fabric of a Historic Structure, including works to ensure the 'shell' is "Wind and Weatherproof" should be classed as unavoidable without breaching statutory obligations and have accordingly been classified as priority A1.

Basis of costings

Costings are budget rough orders of cost, (ROC), allocated by the surveying person during the inspection and report process. The costs are an indication of the costs which could be expected if works were included either in a Term Contract or as part of a Works contract, carried out at the time of the report.

Such cost would not hold if broken down into phases or let as small separate contracts or requiring a contractor to erect scaffolding for a single item of work. All costs will need to be reviewed at local level when the work item has been investigated and recommendations, specifications etc. have been made. ROCs shown are inclusive of VAT.

F: RECOMMENDATIONS AND CLASSIFICATIONS OF PRIORITY

F2 CLASSIFICATION OF MAINTENANCE PRIORITIES

Structures are classified for required maintenance standard as follows:

Maintenance Standard	Definition	Example
X	Exceptional Maintenance in impeccable order at all times for reasons of operational necessity, public importance, client status or environmental quality.	Selected public or defence facilities in environmentally important areas or with irreplaceable contents.
N	Normal Fully maintained in accordance with EWC instructions and with regard to the client's needs for extended use.	All facilities except those in categories X, L, W or D.
L	Limited-Life Maintained to allow use for a period of not more than five years. Classification to be reviewed annually in consultation with client.	Asset awaiting a decision on continued use, conversion, modernisation etc.
W	Wind and Weatherproof Disused asset maintained only to prevent serious deterioration with due regard to safety.	Asset having no present use awaiting decision on future use or disposal.
D	Demolition Pending Maintained only to a level sufficient to obviate the risk of claims or legal action against the client or EWC.	Assets having on further use or value awaiting demolition.

The Maintenance Standard of Britannia College is "N" - Normal

F: RECOMMENDATIONS AND CLASSIFICATIONS OF PRIORITY

F2 CLASSIFICATION OF MAINTENANCE PRIORITIES

A1 Unavoidable Service. Unavoidable tasks required to meet statutory obligations which must be carried out to avoid the serving of an in-year legally enforceable notice.

Failure to do so is liable to lead to prosecution and / or adverse publicity.

Preventative maintenance tasks to obviate the possibility of breaching statutory and health and safety regulations.

A2 Unavoidable Service. Unavoidable MoD Mandatory Tasks and unavoidable existing in-year contractual commitments.

A3 Unavoidable Services. Unavoidable planned tasks which, if not undertaken, will lead directly to unacceptable degradation of core functional capability.

B1 Essential Services. Planned tasks which, if not undertaken, will result in unacceptable and disproportionate expenditure in the next financial year.

B2 Essential Services. Works services tasks required to improve efficiency significantly with a pay back period of less than 5 years.

C Urgent Services. Those services that are necessary to undertake to maintain the utility and value of the Estate. If not undertaken in the short term, there should be no adverse effect.

D Desirable Services. Works services which are necessary to maintain standards.

Examples of the category classified works may be found within the PROPAN Initiative Framework Document for LTC '99 dated February 1998. Further advice on prioritisation may be found within Section A4.3.3 of the GHBAU "Handbook".

Please note that recommendations are **not** intended as a specification for the works required but simply an indication of their nature.

COMMODOR'S OSR AND COMMANDERS HOUSE

REPAIR TYPES TO ELEVATIONS

<p>A Defective/Badly Weathered Stone - General Monitor and investigate in detail to decide appropriate repair option.</p>	<p>L Raking Out Unsympathetic Mortar and Repoint - Brick Rake out sand cement render and repoint in specified matching mortar.</p>
<p>B Replace Damaged/Cracked Stone Take out indicated block and cut back to sound core. Replace with new material to form new element to match the original in size and character.</p>	<p>M Raking Out Unsympathetic Mortar and Repoint - Stone Rake out sand cement render and repoint in specified matching mortar.</p>
<p>C Piece-In Stone Cut out damaged portion of stone/unsatisfactory mortar repair. Replace with new material to match the original in character.</p>	<p>N Removal of Efflorescence Remove efflorescence and monitor.</p>
<p>D Pinning of Surface Spalls in Masonry Pin spalling surface by means of phosphor bronze wire or stainless steel pins and epoxy resin.</p>	<p>O Treatment of Metal Fixtures - Retained Treat and paint metal fixings as specified.</p>
<p>E Fissured Stonework Point in fissures in individual stones as indicated using mortar mix as specified.</p>	<p>P Removal of Metal Fixtures Remove redundant metal built-in to brick/Stone and make good as appropriate.</p>
<p>F Mortar Repair of Stone Mortar repair to single stone in situ using mix as specified.</p>	<p>Q Removal of Moss & Vegetation and Treatment Remove ivy, other plant growth and moss. And treat with approved herbicide and make good pointing as necessary.</p>
<p>G Grouting Masonry Apply grout to cracks in stones and voids in masonry walls.</p>	<p>R Removal of Algae/Slimes & Treatment Investigate cause of algae/slimes on brick/stone to walls, remove and treat with approved fungicide.</p>
<p>H Brick Repair - General Investigate in detail to decide repair option. Repair options:- 1. Cut out damaged brick/s, portion of brickwork or inappropriate brick/s and piece in new to match. 2. Mortar repair to brick or bricks in situ using approved mix.</p>	<p>S Timber Treatment Treat/paint existing timber in situ or remove and make good as indicated. Renew timber component.</p>
<p>I Brick Repair - Make Good Missing Bricks Rake out holes including removal of remains of any broken bricks and insert new in approved mortar all to match existing.</p>	<p>T Check Movement in Stonework/Brickwork Investigation by engineer of cracks and open joints in stonework prior to identifying repair type.</p>
<p>J Raking Out Defective Mortar and Repoint Brick Rake out to specified depth and repoint in specified matching mortar.</p>	<p>U Open Up for More Detailed Inspection Open up structure/roof for more detailed inspection of fault prior to defining repair type</p>
<p>K Raking Out Defective Mortar and Repoint Stone Rake out to specified depth and repoint in specified matching mortar.</p>	<p>V Rainwater/Soil/Vent Pipes and Gutters Replace existing plastic rainwater, soil, waste and ventilation pipes and gutters with cast iron to match existing. Where only part of pipe is to be replaced use cast iron/lead/zinc as appropriate.</p>
	<p>Z Particular Repair Non-typical repair which is described in detail on repair sheet/schedule against relevant elevation</p>

COMMODOR'S OSR AND COMMANDERS HOUSE

REPAIR TYPES TO ROOFS

RA	Reslate Carefully remove all existing slates and battens it is anticipated that between 60% and 70% of slates can be reused. Repair replace defective/rotten timbers, structural and under slate close boarding. Re-cover roof in original form with random slates laid to diminishing courses. Incorporate high performance slater's felt, counterbattens and battens (instead of battens only) and insulation as appropriate. Provide cross ventilation to cold roofs. Renew any defective lead valleys, hips, stepped flashings, cover flashings as part of re-roofing.	RI	Cover Flashings Fit lead cover flashings over tops of upstands. Work to be in accordance with the recommendations in LSA Manuals.
RB	Replace Slates Replace unsympathetic and missing slates as a short term option.	RJ	Refix Flashings Refix with lead wedges and repoint loose/defective mortar to lead cover flashings.
RC	Lead Flashings Replace defective lead flashings as identified. New work to be in accordance with the recommendations in LSA Manuals.	RK	Felt Roofing Renew/patch repair green mineral finished felt and fit lead cover flashings over top of upstand as recommended in LSA Manuals.
RD	Lead Roofing Remove existing defective lead roofing and renew to falls and details, etc as recommended in the current Lead Sheet Association Manuals	RL	Moss & Vegetation Remove moss and vegetation from joints, treat with herbicide/moss killer and make Good pointing.
RE	Repair Lead Roofing Patch/weld repair lead as required in the short term. Extreme care should be taken if in situ lead welding carried out.	RM	Defective Pointing Brick & Stone Rake out defective pointing (m ²) in brick Parapet walls m run in stone copings and repoint with approved mortar mix.
RF	Asphalt Roofing Take up existing asphalt roof finish and lay new in accordance with recommended procedures. Upstands and fascias to be reinforced with suitable expanded metal to reduce risk of creep. Fit lead cover flashings over tops of upstands. Work to be in accordance with the recommendations in LSA Manuals.	RN	Treat Metal Treat with approved rust converter/inhibitor all steel and cast iron and paint with lead based paints.
RG	Repair Asphalt Cut out defective asphalt areas including coves and upstands and make good with new material to match existing and in accordance with recommended procedures.	RO	Timber Treatment Clean down and repaint timber generally including fascias and eaves soffit boarding. Renew timber/timber component as directed.
RH	Solar Coating Apply/reapply touch up solar reflective coating to asphalt.	RP	Rainwater Outlets, Etc Clean out hopper head, rainwater outlets, etc.
		RQ	Defective Parapet Walls Take down defective parapet wall and rebuild in bricks to match original.
		RR	Gutters & RWP's Take down defective parapet wall and rebuild in bricks to match original.
		RS	Structural Steel Clean down, treat and paint all structural Steel.
		RT	Lightning Conductor Pointing holes around lightning conductor fixings.
		RZ	Particular Repair Special survey/action/repair/treatment as described under specific roof section.

**SECTION F.3.- RECOMMENDED REMEDIAL WORKS
 COMMODOR OSR'S HOUSE
 CHIMNEY STACKS AND OTHER FEATURES GENERALLY**

Reference	Brief Description of Item	Cost	Priority	Year	Repair Code	Comments
E.2.03	Thoroughly inspect all chimneys and cut out all defective brickwork and replace with new.		B1	2000-2001	H	
	Rake out areas of pointing that are defective and repoint		B1	2000-2001	J	
	Cap off disused flue and ventilate		B1	2000-2001	Z	
	Replace all defective flashings, soakers, etc		B1	2000-2001	R1	
	Cut out defective/decayed timbers in roof void		B1	2000-2001	RO	

SECTION F3:- RECOMMENDED REMEDIAL WORKS
COMMODOR OSR'S HOUSE - ROOF

Reference	Brief Description of Item	Cost	Priority	Year	Repair Code	Comments
E3.101	Repair lead to flat roof areas		A3	2000	RF	
	Replace slipped slates		A3	2000	RB	
	Check flashings		A3	2000	RC	
	Redecorate lantern light and repair		A3	2000	RZ	
	Cut out spalled brickwork and make good		A3	2000	I	

SECTION F3:- RECOMMENDED REMEDIAL WORKS

COMMODOR OSR'S - EXTERNAL ELEVATIONS

Reference	Brief Description of Item	Cost	Priority	Year	Repair Code	Comments
E3.103	Cut out spalled stonework and make good		B1	2001	C	
	Cut out spalled brickwork and make good		B1	2001	I	
	Rake out defective pointing and repoint		B1	2001	J	
	Cut out defective timbers, repair and redecorate		B1	2001	Z	
	Redecorate metalwork		B1	2001	Z	

SECTION F3:- RECOMMENDED REMEDIAL WORKS

COMMODOR OSRS - INTERNAL

Reference	Brief Description of Item	Cost	Priority	Year	Repair Code	Comments
E3.102	Cut out defective plaster to water stained areas, replaster and redecorate ceilings. Internal redecoration of property		D D	2001 2004	RZ RZ	

**SECTION F3:- RECOMMENDED REMEDIAL WORKS
 COMMANDERS HOUSE - ROOF**

Reference	Brief Description of Item	Cost	Priority	Year	Repair Code	Comments
E.4.03	Clean down roofs and remove plant growth		D	2000	RC	
	Replace slipped slates		B1	2000	RB	
	Cut out spalled brickwork to chimney		B1	2000	H	
	Repoint defective pointing to chimneys		B1	2000	J	
	Check flashings, soakers, etc and renew		B1	2000	RC	
	Clean out gutters and downpipes		B1	2000-2004	RZ	

**SECTION F.3:- RECOMMENDED REMEDIAL WORKS
 COMMANDERS HOUSE - ELEVATIONS**

Reference	Brief Description of Item	Cost	Priority	Year	Repair Code	Comments
E4.07	Clean down walls and remove vegetation		B1	2000	R	
	Cut out defective brickwork and make good		B1	2000	I	
	Cut out defective point and repoint		B1	2000	K	
	Clean down woodwork and redecorate		B1	2000-2004	Z	
	Clean down metalwork and redecorate		B1	2000-2004	V	

SECTION F3:- RECOMMENDED REMEDIAL WORKS
COMMANDERS HOUSE - INTERNAL

Reference	Brief Description of Item	Cost	Priority	Year	Repair Code	Comments
E4.9	Internal redecoration Provide electrical and mechanical test certificates		B1 D	2000 2000	Z Z	

Provide cover flashings to asphalt upstands in Code 5 lead.

Provide gutter/downpipe and necessary drainage to front edge.

Apply solar reflective coating to finished surface.

E.3.48 **Roofs D2 and 2A - Middle Wing to Main Block and Tank Room Link**

Description

Asphalt roof covering with solar reflective coating, cross parapet walls, brick parapet walls, stone copings, rendered walls and lead cover flashings to perimeter. Mineral felt to roof tank enclosures with mineral felt coverings to tank enclosure.

Condition

The asphalt roof covering is in fair condition however very minor repairs are required to blisters and cracks. Cross wall parapets appear to be in good condition. There are defective joints between coping stones of parapets.

Cracks are apparent to the north parapet wall of roof D2A and to the reinforcing steel of the slab over the door/hatch roof is exposed to the elements and is beginning to weather badly.

Recommendations

Cut out areas of blistered, bubbled and cracked asphalt and renew with new asphalt.

Rake out joints to coping stones and mastic

Remove existing felt covering to tank enclosure and replace with new felt.

Remove damaged parapet wall where cracks have appeared and rebuild in new brickwork and repoint in lime mortar.

Treat exposed steelwork with rust inhibitor and provide concrete repair over door/hatch roof.

Rake out defective pointing to brickwork of parapets and repoint in lime mortar.

E3.49 **Roof D3 Over Extension to Main Block**

Description

Asphalt roof covering with solar reflective coating, lead cover flashings with brick parapet walls and stone copings around perimeters.

Condition

The asphalt roof covering is in good condition however there is an area of slumping to upstands.

Recommendations

Cut out defective asphalt upstand and renew asphalt, make good solar coating.

Condition

Generally roof is in fair condition, some creep and splitting noted along the cove and upstands together with defective pointing between coping stones and brickwork parapet walls.

Recommendations

Cut out defective asphalt to roof covering and upstands and make good with new.

Clean down roof and reapply new solar reflective coating.

Rake out existing defective joints to stone copings and re-mastic.

Rake out defective pointing to brickwork and repoint in lime mortar.

E3.63 Roof D10 - Roof in Courtyard on South Side of Main Block

Description

Bitumen felt roof covering with lead cover flashings to perimeters together with brick parapet wall and stone copings around perimeter to south wall.

Condition

Generally the roof is in fair condition however flashings are a little long which may cause failure at the point of joints in brickwork by thermal movement. Copings along the south side of the lightwell appear to be coated in bituminous material and this is beginning to flake.

Recommendations

Remove existing lead flashings and apply new lead flashings to correct lengths as recommended by the Lead Development Association's Guidelines.

Clean out rainwater gutters and outlets and flush through.

Remove existing bituminous coating from parapet and overlay with new bituminous felt.

E3.64 Roof D11 - Small Roof to West Wing

Description

Asphalt roof covering with brick parapet walls, stone copings to perimeter and lead cover flashings.

Condition

Generally in good condition, some cracking/crazing noted. Defective pointing was noted between the coping stones and brickwork.

Recommendations

Cut out defective areas of asphalt to flat areas, coves and upstands, repair asphalt and make good solar reflective coating.

E3.67 Roof D14 - Small Flat Roof/Balcony North East Corner of Block D13

Description

Asphalt roof covering with solar reflective coating, brick parapets, stone copings and lead cover flashings.

Condition

Generally the roof is in good condition, however blistering and bubbling of the asphalt were noted on the flat areas together with some slump to coves and upstands.

Recommendations

Cut out defective areas of asphalt to flat areas, coves and upstands, repair asphalt and make good solar reflective coating.

E3.68 Roof D15 - Small Roof Attached to East End of D13

Description

Asphalt roof covering with solar reflective coating.

Condition

Generally the roof is in good condition, however minor cracking to front edge was noted.

Recommendations

Rake out all defective coping stones and re-mastic.

E3.69 Roof D16 - Low Level Roof to Extension to D9

Description

Asphalt roof covering.

Condition

Generally in poor condition, there are a number of splits, cracks and punctures to the roof surface together with lack of cover flashings and upstands around perimeter and gutter.

Recommendations

Remove existing covering and renew complete.

E3.52 Roof D3B High Level Roof Over 3 Storey Extension

Description

Asphalt roof covering with solar reflective coating, lead cover flashings and brick parapet walls.

Condition

The asphalt roof covering is in good condition, however there is minor slumping of asphalt at upstands.

Recommendations

Cut out defective asphalt upstands, renew asphalt and make good solar coating.

E3.53 Roof D3C Low Level Roof Over Single Storey Extension

Description

Asphalt roof covering discharging into asbestos gutter and downpipe.

Condition

Generally the roof is poor with minor cracks and splits to surface coat. Asbestos gutter needs replacing with cast iron.

Recommendations

Renew roof covering with new asphalt and apply solar reflective coating.

Replace asbestos gutter with new cast iron gutter and downpipe.

E3.54 Roof D4A Over Extension to Building D4

Description

Asphalt roof covering with brick parapet walls and stone copings around perimeter, lead cover flashings and solar reflective coating.

Condition

Generally in good condition, recently recovered and solar reflective coated.

Recommendations

Maintain annually, ie 6 monthly inspections.

E3.50 Roof D3A and D3C Over Extension to Building

Description

Asphalt roof covering with solar reflective coating, brick parapet walls and stone copings.

Condition

The roof covering is in fair condition but general minor blisters and crazing is evident. Joints between coping stones are generally defective and no lead cover flashings are provided to any of the parapets. Spalling brickwork to parapet wall heads was also noted. Solar coating is weathered

Recommendations

Cut out defective asphalt to roof covering and renew asphalt.

Provide new cover flashings to perimeter of parapet walls.

Rake out existing mortar joints to copings and re-mastic.

Cut out all spalled brickwork and replace with new to match and bed in lime mortar.

Clean down and apply new solar reflective coating to roof covering.

E3.51 Roof D4 Over Middle Wing to Main Block

Description

Asphalt roof covering with brick parapet walls, stone copings around perimeter with lead cover flashings.

Condition

Generally the asphalt roof covering is in fair condition however there are areas of cracking, lead cover flashings are generally in fair condition. Moss, lichen and plant growth are evident to coping stones with poor pointing to wall faces and the access hatch for the tank room is in need of renewal.

Recommendations

Rake out all defective joints to copings and re-mastic.

Renew roof hatch to tank room enclosure with a framed ledged and braced door.

Clean down roof surfaces, repair cracks, blisters, etc and reapply solar film.

Remove all moss and plant growth from roofs.

D BLOCK ROOFS

E3.46 Roof D - Main Roof Over East/West Block

Description

Asphalt roof coverings with solar reflective coating and lead cover flashings laid in bays with cross parapet walls. Parapets are generally constructed in brick with stone copings with the exception to the south wall where parapets are in excess of 1.5m high and are mainly constructed in stone.

Condition

Asphalt roofs, solar coatings and cover flashings are in good condition and appear relatively new, likewise parapet walls to the perimeters are generally in fair condition. Asphalt upstands in the main are in good condition with minor areas of creep at parapet upstands.

Areas of new asphalt have blistered and bubbled. This is possibly due to residual moisture being trapped in the structure at the time of replacement. The bubbles have burst in some areas and may be allowing water to penetrate into the deck. Areas of slumping to upstands was also noted together with a section of cover flashing which has become detached from the parapet wall.

The asphalt roof covering despite being coated with solar reflective paint was very soft at the time of inspection by solar gain and is easily marked and dented by shoes. This softness does not help the cause against slumping. Test samples should be taken to ascertain the correct asphalt for this purpose.

Recommendations

Cut out defective areas of asphalt to blisters and bubbles, etc and renew with new asphalt and make good solar coating.

Refix all loose flashings with lead wedges correctly plugged and masticed in place.

E.3.47 Roofs D1, 1A and 1B Over East Wing to Main

Description

Asphalt roof covering with solar reflective coating and brick parapet walls around perimeters, stone copings and lead cover flashings. Access ladders to D1A and D1B.

Condition

Generally the asphalt roofs are in good condition. All roofs have recently been renewed. Very minor blistering of the asphalt surface was noted (see main roof 3rd paragraph).

Recommendations

Cut out defective areas of blisters and bubbled asphalt and renew with new asphalt, make good solar coating.

BLOCK D ROOFS AND ELEVATIONS

E3.55 Roof D4B Plant /Tank Room Roof and Access to Roof D4

Description

Asphalt roof covering with solar reflective coating with brick parapet walls, stone copings around perimeter and lead cover flashings.

Condition

Generally in good condition, recently renewed.

Recommendations

General maintenance only, ie 6 monthly inspections.

E3.56 Roof D5 West Wing to Main Block

Description

Asphalt roof covering with parapet walls, stone copings to perimeter, lead cover flashings and solar reflective coating.

Condition

Generally asphalt is fair with areas of cracks and splits to the roof and to upstands. The roof covering would probably best be replaced. The west facing parapet wall would appear to have been rebuilt and a solar reflective coating has previously been applied. The solar coating has weathered and requires recovering. The asphalt roof to the tank room is in poor condition and requires renewal. Moss and plant growth is evident to roof coverings and to coping joints together with defective points and joints to coping stones and brick parapet walls.

Recommendations

Repair asphalt roofing to all areas and reapply solar reflective coating, including tank room roof.

Rake out joints to coping stones and repoint.

Rake out defective pointing to parapet walls and repoint in lime mortar.

Clean down roofs, remove any plant growth, moss, etc and apply solar coating.

E3.57 Roof D5A - North Extension to Block From Roof D5

Description

Asphalt roof covering with brick parapet walls, stone copings around perimeter and lead cover flashings.

BLOCK D ROOFS AND ELEVATIONS

Recommendations

Cut out defective asphalt to roofs and upstands and renew with new asphalt.

Provide lead cover flashings in Code 5 lead to parapet walls.

Rake out all defective joints to coping stones and re-mastic.

Rake out all defective joints to brick parapet walls and repoint in lime mortar.

Clean down all roofs and apply new solar reflective coating.

E3.60 Roof D7 - Low Level Roof to North Side of Main Block

Description

Asphalt roof covering with cover flashings to upstands. Timber roof lights to provide additional lighting to rooms below.

Condition

Roof covering is generally in fair condition.

Recommendations

Repair staircase, clean down, treat rust and redecorate.

Clean down roofs and reapply solar reflective coating.

E3.61 Roof D8 - Small Roof Over West Extension to Main Block

Description

Asphalt roof covering discharging into gutter.

Condition

Generally in fair condition, minor cracking noted with poor/fair solar coating.

Recommendations

Clean down roof, cut out cracks and make good, apply reflective solar coating.

E3.62 Roof D9 - Roof Over Low Level Building in Corner Between Block D1 & D1A

Description

Asphalt roof covering over concrete base with brick parapet walls and stone copings around perimeter.

Condition

Generally the roof coverings are in fair condition however there is some cracking to the asphalt upstands. Brick parapet walls and stone copings have defective joints and require repointing.

Recommendations

Cut out and replace defective asphalt to roof and upstands and make good with new asphalt.

Clean down roofs and reapply solar reflective coating.

Rake out all defective joints to coping stones and re-mastic.

Rake out defective pointing to brick parapet walls and repoint in lime mortar.

E3.58 Roof D5B - Small Flat Roof to East Extension to Block Under Roof D5

Description

Bituminous felt roof covering with grey stone chippings.

Condition

Generally the roof covering is in fair condition however there is insufficient fall on the roof and consequently there is a considerable amount of moss and plant growth to the roof. Discharge from the roof is into a plastic gutter along the south edge and the gutter is blocked due to leaves and is distorted with age.

Recommendations

Remove existing roof covering, realign roof to increase fall, reroof and apply new solar reflective coating.

Remove existing gutters and downpipe and replace with new cast iron gutters and downpipes.

E3.59 Roof D6 - Between Roofs D4A and D5

Description

Asphalt roof covering with brick parapet walls and stone copings around perimeter. No lead cover flashings

Condition

Generally in fair condition however there has been failure of the asphalt upstands and surface asphalt together with defective pointing to brick parapet walls and stone copings.

D BLOCK ROOFS