# Castlereagh 10-Year Planned Preventative Maintenance (PPM) Plan

## Introduction

Castlereagh Campus is the oldest of the 4 main campuses within the College's estate with the buildings on-site ranging from 30 – 70 years old. The campus is earmarked for re-development with a state of the art, modern campus. There is a requirement to continue to maintain and modernise the campus to ensure it remains fit-for-purpose during the planning, design and potentially construction phases of the re-development project. For the purposes of this report we have taken the view that the existing buildings will remain in use for at least the next 10 years and therefore have prepared a Planned Preventative Maintenance Plan based on this timeframe.

Our brief was to identify those items of works over a ten year period that would be required to be undertaken to the structure and fabric of all buildings. A report on the building services is being undertaken by consulting engineers, Williams Shaw.

The following maintenance schedule does not make provision for any alterations or refurbishments required to the buildings to facilitate changes in curriculum.

## Main Issues Summary

The following maintenance schedule does not make provision for any alterations or refurbishments required to the buildings to facilitate changes in curriculum.

Internal finishes and decorations require renewal on a cyclical basis and an allowance has been made for each block to undertake these life cycle works annually.

### 1.2.1 Block 1

Generally the pitched roofs coverings are in a functional state of repair albeit would require cleaning to remove the heavy build-up of moss and lichen. Upgrades in the form of roof ventilation, insulation and replacement rainwater goods will be required over the term to preserve the elements and prevent water ingress.

The windows to the block are generally comprised of UPVC double glazed units with some aluminium framed windows and some metal framed single glazed windows. Generally the UPVC windows are aged and would require replacement in entirety in the next 10 years.

Over the ten year period it is anticipated that wide-scale replacement and/or upgrading of automatic doors, fire alarm devices and heating plant and pipework will be required. The lecture theatre mechanical ventilation plant is recommended for replacement during the period.

Poorly sited server equipment in classrooms and the conversion of south-facing classrooms to IT classrooms have resulted in over-heating issues in some rooms. A scheme to re-site server equipment outside of classrooms is proposed however budget costs for this project have not been included within this report.

### 1.2.2 Block 2

Given the age of the roof covering and the condition of the rooflights it is proposed to replace these elements in their entirety over the 10 year period. This is a worst case

scenario and there may be scope to retain the existing roof covering and replace rooflights only.

The windows to the block are a combination of double glazed UPVC and single glazed aluminium windows. The single glazed aluminium windows will require replacement in the short to medium term.

### 1.2.3 Block 3

The roof covering comprises of insulated profiled metal sheet cladding to the entire pitched roof area. The profiled metal cladding has received several areas of patch repairs including recoating of the valleys to the front elevation. There is corrosion to the ends of the panels and at laps & fixings throughout all elevations. There are some localised areas of water ingress at certain locations at lap ends etc. It is unknown if the roof cladding can be washed down and re-coated to elongate the lifespan therefore we have allowed for 'worst case scenario' and wholescale phased replacement with insulated roof panels in the long term.

Fenestration is provided through single glazed aluminium windows with glazed curtain walling to all elevations. The curtain walling and windows will require upgrading to double glazing within the 10 year period.

### 1.2.4 Block 4

Block 4 comprises modular type timber frame and cladding construction with felt roof and is used for storage. Allowances have been made for essential maintenance only including roof repairs, replacement doors, cladding repairs and treatment.

### 1.2.5 Block 5

There is a combination of pitched and flat roof coverings to this block with rooflights installed throughout. Replacement of pitched roof coverings is recommended due to the water ingress around rooflights and the poor thermal performance of the roofs. Replacement rainwater goods, soffit and fascia will be replaced alongside the roof covering.

Windows are double glazed UPVC and are generally satisfactory however there is an allowance to replace selected windows to the block within the 10 year period.

Internally Block 5 requires significant modernisation and re-modelling to provide a fit-for-purpose space. These budget costs have not been included in this report.

### 1.2.6 Block 6

This building is in poor condition and it is recommended that roof coverings are upgraded, wall insulation upgraded and windows replaced.

### 1.2.6 Mechanical & Electrical

Heating plant and circulating pumps to the main boiler-house and Block 5 plant-room is at the end of it's functional life and requires immediate replacement. There is a capital funding bid prepared for financial year 2021-22, however the costs have been included

in this report as there is no absolute confirmation at this time that the project will be proceeding.

A portion of sub-distribution boards, mains cabling and distribution boards have been identified as requiring replacement during the period. Large scale re-wires are recommended to Block 3, Block 5 and Block 1 within the 10 year period with replacement LED lighting also required throughout.

Fire alarm, intruder alarm and access control will all require replacement between years 6 – 10 in all blocks.

## Budget Cost Summary

The Campus has been maintained to a good standard however there are elements which are at the end of their functional life and which now, or in the short to medium term, require replacement or significant enhancement work.

# Castlereagh 10-Year PPM Plan

| | Building | M&E | Total |
|---|---|---|---|
| Block 1 | £ 915,000 | £ 801,521 | £ 1,716,521 |
| Block 2 | £ 105,160 | £ 173,058 | £ 278,218 |
| Block 3 | £ 987,180 | £ 849,070 | £ 1,836,250 |
| Block 4 | £ 31,450 | £ 15,000 | £ 46,450 |
| Block 5 | £ 545,150 | £ 394,565 | £ 939,715 |
| Block 6 | £ 145,500 | £ 86,304 | £ 231,804 |
| Sitewide | £ 342,000 | £ 42,720 | £ 384,720 |
| Total | £ 3,071,440 | £ 2,362,237 | £ 5,433,677 |

Exclusions to Costs:

Professional Fees (15%)

Fixtures & furniture (10%)

VAT (20%)

Contingency / Optimum bias (20%)

Statutory Fees

Alterations or Re-modelling

These additional costs account to a total cost for planned works circa £10m.