

Structural Inspection Report

**Standalone Garage, Flat 1/1,
40 Campbell Street,
Helensburgh**

Balfour Engineering Consultancy Ltd

Suite 4016, Mile End, Abbeymill Business Centre, 12 Seedhill Road, Paisley PA1 1JS

Tel: 0141 848 9708

E Mail: info@balfourengineering.co.uk Web: www.balfourengineering.co.uk

Iain Balfour, Director, B.Eng (Hons.) C.Eng M.I.Struct.E. Registered in Scotland No. SC291795

Ref 14538/FD

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Report By:	Fiona Drew BEng (hons), CEng, MIStructE	Date:	12/05/26
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1.0 Introduction

Balfour Engineering Consultancy was instructed to undertake a condition survey inspection at the above property. The inspection was carried out on 28th April 2026, weather conditions were warm and dry.

The non-intrusive and non-disruptive survey was undertaken by Fiona Drew to determine the existing condition of the structure and provide recommendations on any defects noted.

Reference is made in the report to specific areas where alteration works are to be undertaken. Any other elements of note are also included for action/review.

2.0 Observations

For the purposes of the report the rectangular planned building will be taken to be on a north-south orientation with the front entrance accessible from West Argyle Street. There are two garage doors to the north elevation. There is an overgrown driveway/access between the garage doors and the Street.

The single storey garage structure is included within the B listing of the main residential property. The main residence was constructed around 1830 and the garage or outbuilding is taken to be commensurate with the main residence. This would mean that the garage is around 200 years old.

It has a mixture of red sandstone walls to the front/northern elevation and blonde sandstone walls to the southern/rear elevation. The internal walls are a mixture of stone and brickwork. The hand built timber hipped roof structure is finished with slates.

The building is split into a number of spaces. On the northern side there are what were two garage. On the southern side there is a large room with a window and door overlooking the garden grounds to the south. On the west elevation there are two smaller store rooms.

The flooring within the former garages is a concrete slab. Within the southern room there are flagstones.

Refer to Appendix A for photographs referred to below.

At the south-eastern corner of the building there is a small buttress. Refer to photograph 1. There is also extensive ivy growth.

On the southern elevation there is extensive ivy growth obscuring part of the wall and roof. The stonework is in acceptable condition. The roofing slates appear okay. The gutter is in poor condition. There is some minor deformation or movement in the roof finish. Refer to photograph 2.

The western elevation stonework and roof appear in similar condition to the southern elevation. Photograph 3.

Some weathering and minor deterioration of the stonework was visible in places on the western gable. Photograph 4.

Vegetation could be seen growing in horizontal and perpend mortar bed joints at the base of the wall on the west gable. Photograph 5.

To the front (northern) elevation there are a number of cracks within the stonework mortar joints and dislodged masonry. Some small movement of the roof slope was visible. The rainwater goods were in poor condition. The driveway was partially overgrown. Photograph 6.

There is a gap between this building and the adjacent newer garage. The gap is inconsistent along the height of the building. There is some dislodged stonework. Refer to photographs 7 – 9.

To each side of the small window on the northern elevation there is cracking to each side of the window lintol. There is also opening up of the joints. Refer to photographs 10 & 11.

Above the main eastern garage door the mortar joints have opened up. The timber elements are in poor condition. Photograph 12.

To the western side of the western garage door there is opening up of the masonry elements and the timbers are in poor condition. Photograph 13.

Masonry is dislodged and there is vegetation growths at the base of the north-western corner of the building. Photograph 14.

To the interior of the room space on the southern side of the building there are timber props install to the window lintol. Cracking is visible to each side of the lintol along with partially dislodged masonry. There is also vegetation beginning to grow within the building. Photographs 15 & 16.

To the dividing wall between the northern and southern parts of the building there is a stone wall. The wall is cracking in a number of places and is dislodged from the eastern gable wall. The flagstone covered floor dips from west to east across the length of the building. Photograph 17.

Some sign of woodboring insects was noted within deteriorated timber elements forming the roof structure. Photograph 18.

To the northern portion of the building within the former garage spaces the internal wall the cracks noted on the southern side are visible here. The dislodgement of this wall from the eastern gable is more pronounced, with a gap of around 110mm in places. Refer to photographs 19 – 21.

General view of eastern gable wall showing former window closed up at some point in the past. The concrete floor slab is in poor condition with extensive cracking running in many directions across the extent of the slab. Photographs 22 & 23.

There is a vertical crack or displacement between the northern wall and the eastern gable elevation. Photograph 24.

At the eastern garage door, newer precast concrete lintols have been installed to the interior at some point in the past. The stonework to the exterior of the walling is only partially supported on the precast concrete lintols, with load being shared by timber framing. Photograph 25.

The condition of the lintol and suitability of supports to masonry over the western garage door could not be confirmed. No obvious defects were noted to the timber roof structure in this area. Photograph 26.

A timber ceiling joist was unsupported at both ends above the former dividing wall between garage sections. Photographs 27 & 30.

On the western elevation a crack could be seen in the masonry. Photograph 28.

The western end of the internal dividing wall has been constructed with brickwork. The bricks have been laid on their sides ie not in the standard orientation. Photograph 29.

Where a dividing wall has been taken down the floor has not been infilled. Photograph 31.

The timber roof structure condition varies throughout. With some damp staining, water penetration, holes in the roof and warped timbers. Photographs 32 – 35.

3.0 Discussion in Relation to Adjacent Development

As there has been some disruption to the eastern gable wall a review was undertaken of the Planning and Building Warrants associated with the works which were carried out within the land on the eastern boundary.

A planning application was made in November 2019 for the proposed works which encompassed the demolition of the former garage, removal of some of the boundary wall to West Argyll Street and the construction of a new garage. Planning approval was given in January 2020 for the proposal.

An associated Building Warrant application was lodged in 2020.

Refer to Appendix B for extracts of the Argyll & Bute websites indicating both applications. The new garage appears to be of a larger floor plan area than the original garage.

In addition a review of historical maps available on Google Earth was undertaken. There are three dated images in Streetview of this property. In 2009 and 2011 the original garage is visible. It is a relatively lightweight timber framed building with what appeared to be a profiled metal cladding to the roof, possibly containing asbestos. It was around 3m in width and is shorter in overall height than the garage for number 40. The next image is from October 2021 this shows the original building having been demolished and the new much wider and taller garage having been constructed. The new building is also of brickwork construction.

This much bigger building will exert a higher bearing pressure on the surrounding soils and it is likely to deform the subsoils to a greater degree than the original structure. It is unknown what consideration was given to the foundations of the garage of number 40 Campbell Street within the Building Warrant application.

In properties of this age the foundations are likely to be shallow. They are expected to be a stones laid directly on the subsoils. For the new garage reinforced concrete strip foundations, where it isn't a raft slab, will have been constructed at around 450mm depth below ground level. This will more than likely be at a depth below any existing foundations. This would therefore suggest that the some form of retention along the boundary wall or underpinning of the existing foundations should have been undertaken or allowed for.

The new garage has been constructed almost hard up against the garage to number 40 meaning that there would have been very little room for movement.

Whilst no clear imagery is available for the condition of the garage building to number 40 to show its condition either before or during the construction works it is highly likely that the construction works will have had some impact on the existing building structure.

It could therefore not be categorically stated that the movement of the gable wall is wholly due to the construction of the new garage, but it will have had a bearing on the movement noted during the April 2026 inspection.

4.0 Discussion on Building Condition

This report does not relate to the costs associated with any remediation works noted below, nor does it make commentary on the costs for any of the items noted below. The costs for any works within this listed building would be determined by other parties.

Defects are due to a combination of the form of construction, the age of the property, the building not being in use and the potential disruption from the works within the adjacent land.

The cracking and movement of the eastern gable wall and separation from the internal walls are due to foundation movement and disturbance to the subsoils. As indicated in section 3.0 there is a strong possibility that a proportion of the movement is due to the earlier works in the adjacent grounds. However the condition of the wall and building overall has not been recorded prior to those works being undertaken and it cannot therefore be categorically stated that the adjacent works are wholly to blame.

That there is cracking along the internal wall and on the western gable would also suggest that this is associated with foundation movement and settlement of the subsoils.

As indicated elsewhere in this report in buildings of this age it was normal for the walls to be constructed directly onto the subsoils with no foundation being provided, alternatively the foundation, should they exist, may be larger/wider stones, upon which the mass masonry wall is constructed.

These types of foundation or overall wall construction are more susceptible to movement. A concrete strip foundation or raft slab would better distribute the forces associated with any sort of subsoil movement or disturbance therein.

The external walls are also not bonded to the internal cross walls, which means that should any movement occur as they are not tied together the extent of movement can increased disproportionately to the original movement.

The cracking along the length of the spine wall would suggest that there has been some settlement below the building which is not associated with the adjacent property. There is also some cracking due to the walls not being tied in and part of the spine wall being incorrectly constructed, ie the bricks have been laid on their side and not on their base. This impacts the structural capacity of the individual bricks and the wall overall.

Overall the masonry walling to the eastern gable, most of the spine wall and at least the first two meters or so of the front and rear elevations would need to be taken down and rebuilt.

Some of the cracking would be expected due to high stresses associated with openings. It is suggested that the some of the cracks could be be raked out to remove all deleterious material and infilled with a suitable lime mortar.

At the eastern garage door the external stonework is currently supported on some timber members which in turn appear in poor condition. The internal parts of the wall are supported on newer precast concrete lintols which appear to be adequate. The defective outer lintols would need to be replaced.

The hand built timber roof is formed with sloped rafters and hip members with ceiling joists at lower level. The roof is finished with sarking boards and slates. The roof is showing its age. There is water penetration and damp staining, along with signs of woodworm or other timber boring insects. At present on the eastern elevation the roof remains supported by the existing wall, even with the lean on the wall.

During any remedial works it is suggested that the roof would need to be inspected at a minimum and potentially wholly removed and replaced.

The concrete floor slab within the northern side of the building is badly cracked and there is a section missing where a wall has been taken down in the past. The cracking is suggestive of movement and at one area there may have been some impact damage. Ultimately the slab could not be saved and would need to be replaced.

All gutters and rainwater pipes should be checked for condition and as applicable removed and replaced. Any replacements would need to be in accordance with the listed buildings consent.

The gutters have been altered due suit the construction works in the neighbouring property. The extent of any agreement on these alteration activities is not known.

The rainwater goods will need renewed as water penetrating into the masonry is detrimental to the overall structural stability. The external walls of this building are constructed with a stone outer leaf and an inner leaf of either stonework or brickwork. The voids/cavity between are normally infilled with random rubble. As water penetrates into the wall it may cause some settling and or lateral movement of the wall.

Vegetation in the form of plant life, i.e. ivy or other plants were growing in some of the cracks in the surface. These should be removed. The roots are detrimental to the overall structure over time.

Doors and windows should be refurbished or replaced. For windows which need to be replaced this should be on a like for like basis so as to align with the Listed Building status.

At one location it could be seen that there was a lack of support at the joist ends on one ceiling joist. As this is in line with where there formally was a dividing wall between the garage sections it is thought that either this timber was historically supported on top of the wall. Or that the joist has been installed when the wall was removed to support other timber elements. Although as the joist is unsupported at each end of its length and only nailed to adjacent members it is not thought to be loadbearing.

5.0 Recommendations

There are two potential options for the garage or outbuilding to number 40 Campbell Stret.

- Full Retention – Refurbishment
- Full Demolition & rebuild

Commentary is given on each of the options noted based on structural requirements. No cost proposals are given for any of the options. These would need to be provided by others.

Full Retention - Refurbishment

Ultimately, no matter the cause of the deterioration, remedial works would be required to allow the building to be retained.

At all times any and all works should be undertaken in line with guidance as set out by Historic Scotland so as to comply with the listed building status and importance of the elevation overlooking the river.

For the refurbishment of the building it would need to take cognisance of the current Building Regulations. And this may require the roof members to be removed and replaced, subject to their size and condition.

The items as listed below are recommended to be undertaken. They have been split into three categories;

Immediate Repairs – These being ones which would impact the building remaining stable in the temporary case.

Repairs during site works – These being items that could wait until any refurbishment or remediation is undertaken. These are items that would be included within the overall works by the Contractor at that time. The opening up works associated with these items may lead to higher costs as the extent of repairs are fully identified.

Non-urgent – These are items which do not immediately impact on the overall stability of the building but will need action at some point.

Immediate Repairs

- Inspection of the roof to be carried out by a specialist to confirm its current condition.

Repairs during site works

- The gable wall, spine wall and around 2m or so of the front and rear elevations adjacent to the eastern wall should be taken down and rebuilt.
- The foundations would need to be inspected to confirm whether they exist and where not then new foundations should be constructed. These foundations should take cognisance of the adjacent structure to ensure that it is not undermined.
- All broken and damaged lintols should be removed and replaced on a like for like basis. For the timber lintols, it may be that a direct repair is not possible.
- Where there is a lack of support to the masonry at some of the doors then new lintols will be required.
- The floor slab and flagstones should be lifted. A new concrete floor slab should be provided within the front side of the building. The flagstones could be relaid, as preferred, on a flat and level surface.
- Where there are cracks or open joints then crack stitching bars as Helifix Helibar or equal approved, or L straps should be installed within the walls to the western side of the building.
- At the same time any open joints should be raked out to remove defective mortar and any other deleterious materials prior to be cleaned and the joints filled with new cementitious mortar. The mortar specification should be determined to suit the 75 or so year old bricks.

- Below ground drainage should be traced to ensure that there are no pipes below the building, and that if there are they pipes are in good condition. Any defects would need to be made good.

Non-urgent

- All ivy and plant growths to the walls and roof should be removed. Consideration should be given to the application of a suitable weed inhibitor to prevent further regrowth.
- All of the above ground rainwater goods would need to be inspected, made good and replaced.
- All windows and doors would need to be replaced.

The above list is not exhaustive and there may be other items which would be required as the building was opened up.

Full Demolition

Based on the list of works required to refurbish the building it is suggested that it would be more cost effective to wholly demolish the building. This is because with the extent of remedial works required most of the building structure would need to be taken down and substructure elements exposed. In ensuring this work was carried out safely large amounts of propping would be required, and it is likely that only small sections of the wall walls would remain in place during any refurbishment works.

Overall, subject to approvals, it is likely to cost less to safely demolish and rebuild the structure, either on a like for like basis, or in a more modern style, than to try and refurbish and make good whilst leaving the walling in place.

The final decision on this would be subject to costs, discussion and agreement of the building owners, Planning and Listed Building approval.

The demolition sequence would need to be determined by a suitably qualified Demolition Contractor taking cognisance of adjacent properties

6.0 Listed Building Status Commentary

Whether the building is repaired or demolished and rebuilt as the garage (or outbuilding) is included within the listing due consideration must be made of the listed status. An application will need to be made to Argyll & Bute Council to undertake any works to any part of the property, this includes the main building.

A copy of the listed building listing is included in Appendix C, along with an extract of the Argyll & Bute conservation area map for Helensburgh.

This map indicates that the site is not within the conservation area and should therefore be exempt from any special measures due to the conservation area. However as it is just outwith the boundary there may be some 'overspill' of requirement for compliance. This would need to be agreed and discussed by the Council

Whilst no listing can be found for the adjacent land to the east, it could be said that a precedence has been set. As the garage to the eastern property is of more modern appearance, should a new garage be constructed to replace the existing structure it may be that it could be constructed with a more modern appearance.

This would of course have to be agreed with the Council, after all necessary Listed Building Consents, Planning Applications or Building Warrants have been applied for.

7.0 Conclusion

As indicated above the building is in poor condition and will need extensive remedial works, or a full demolition and rebuild.

Some of the defects noted within the building are due to the age of the property, along with the form of construction. However some of the disturbance to the eastern side of the building can be attributed to the recent construction activities.

As noted elsewhere at all times any works should be carried out in accordance with Historic Scotland guidance to comply with the B listing of this building.

Scope of the Visual Inspection

This report is based on a visual examination of the relevant structural elements of the property, such as internal and external walls. Certain parts of the structure are inaccessible, and these are obviously out-with the scope of a visual examination. Attention may be drawn to non-structural elements, which could lead to deterioration of the fabric. Where an opinion is expressed regarding structural adequacy or settlement it is based on the evidence available.

In all aspects of a purely visual investigation opinion is expressed on the adequacy of the structure and unless specifically requested, no calculation is undertaken to establish the adequacy of individual structural elements. No examination of timber is made for deterioration due to woodworm, or wet or dry rot and a specialist may be required to examine this aspect of the condition of the property.

The visit to the referenced building does not constitute a design and the structural system for the building cannot be warranted. This report is limited to the observed conditions as much as site observations allow.

Appendix A Photographs



Photograph No.1 – Partial East Elevation not obscured by neighbouring garage.



Photograph No.2 – South (rear) elevation.



Photograph No.3 – West elevation



Photograph No.4 – Weathering and deterioration of stonework between doors on west elevation.



Photograph No.5 – Vegetation growing within bed and perpendicular joints.



Photograph No.6 – North (road) elevation.



Photograph No.7 – Close up of head of north-eastern corner adjacent to neighbouring property.



Photograph No.8 – Dislodged masonry below photo 7.



Photograph No.9 – Base of wall below photo 7 & 8.



Photograph No.10 – Cracking to each side of window lintol and opening of joints.



Photograph No.11 – Close up as photo 10.



Photograph No.12 – Split in timber to lower lintol above door, flaking paint to upper lintol, opening up of joints in stonework above lintol.



Photograph No.13 – Opening up of joints in masonry to north-western corner of building and timbers above door in poor condition.



Photograph No.14 – Cracked and dislodged masonry at base course to north-western corner of building.



Photograph No.15 – Southern wall, internal. Window lintol propped in two places.



Photograph No.16 – Cracking and dislodged masonry at south-eastern corner and vegetation growing inside building.



Photograph No.17 – Interior of southern portion of building viewing dividing wall running east-west. Extensive cracking visible and sloping of flagstone floor towards eastern gable.



Photograph No.18 – Deterioration of timber and sign of woodworm visible on eastern gable



Photograph No.19 – Northern face of internal wall at eastern end. Large crack at intersection of eastern gable.



Photograph No.20 – Close up of head of wall as photo 19.



Photograph No.21 – 110mm gap at opening up/crack as photo 19.



Photograph No.22 – Eastern gable wall. Concrete slab sloping towards northern side.



Photograph No.23 – Cracking noted across full extent of concrete floor slab.



Photograph No.24 – Opening up at intersection of north and east walls.



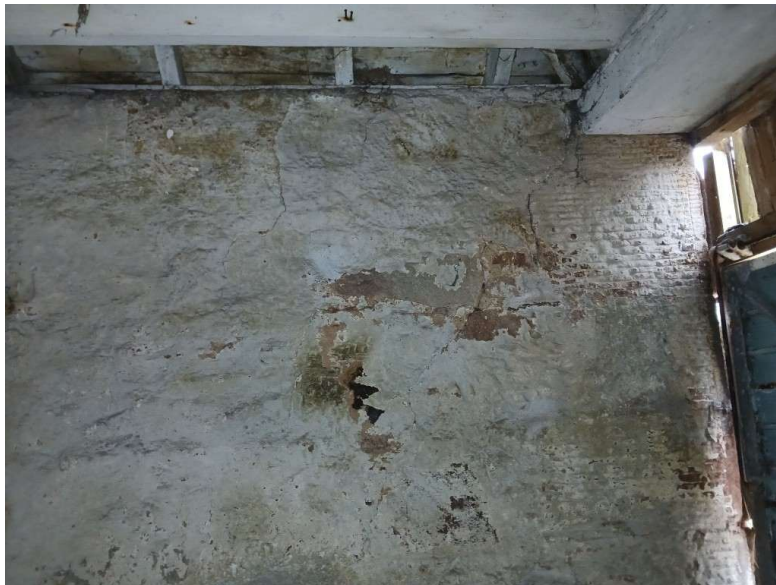
Photograph No.25 – Stone to outer leaf partially supported on external timber lintol and internal precast concrete lintol.



Photograph No.26 – Timbers to roof appear in reasonable condition. Safe lintol not visible condition unknown.



Photograph No.27 – Unsupported ceiling joist.



Photograph No.28 – Vertical crack to internal face of west gable.



Photograph No.29 – West end of internal wall. Constructed with bricks on their side, step cracking in walling.



Photograph No.30 – Unsupported joist end at former dividing wall location.



Photograph No.31 – No infill provided to flooring at former dividing wall.



Photograph No.32 – Timber elements in .poor condition.



Photograph No.33 – Condition of timber elements various throughout the roof structure.



Photograph No.34 – Light visible indicating at least one hole in roof slope.



Photograph No.35 – Damp staining to timber elements.

Appendix B

Planning & Building Warrant Search Results

Planning – Application Summary

[Help with this page](#)

19/02370/PP

Demolition of existing garage and partial demolition of wall to form vehicular access, erection of dwellinghouse and replacement garage, store and entrance gates

Land East Of 38/40 Campbell Street Helensburgh Argyll And Bute

★ Track

🖨️ Print

Details [Comments \(2\)](#) [Constraints \(7\)](#) [Documents](#) [Related Cases \(1\)](#) [Map](#)

Summary [Further Information](#) [Contacts](#) [Important Dates](#)

Reference	19/02370/PP
Alternative Reference	100202279-001
Application Received	Tue 12 Nov 2019
Application Validated	Wed 20 Nov 2019
Address	Land East Of 38/40 Campbell Street Helensburgh Argyll And Bute
Proposal	Demolition of existing garage and partial demolition of wall to form vehicular access, erection of dwellinghouse and replacement garage, store and entrance gates
Status	Decided
Decision	Application Approved
Decision Issued Date	Thu 16 Jan 2020
Appeal Status	Unknown
Appeal Decision	Not Available

Planning application details for adjacent property

Building Standards – Scottish Building Warrant Summary

[Help with this page](#)

20/00715/DOM2

Erection of single storey, 4 apartment, 3 bedroom, dwelling, demolition of existing garage and erection of replacement garage and store.

Land East Of 38/40 Campbell Street West Argyll Street Helensburgh Argyll And Bute

★ Track

🖨️ Print

Details [Certificates](#) [Documents](#) [Related Items \(2\)](#) [Map](#)

Summary [Further Information](#) [Plots](#) [Important Dates](#)

Description Of Works	Erection of single storey, 4 apartment, 3 bedroom, dwelling, demolition of existing garage and erection of replacement garage and store.
Site Address	Land East Of 38/40 Campbell Street West Argyll Street Helensburgh Argyll And Bute
Application Reference Number	20/00715/DOM2
Application Type	Domestic New Build (other)

There is [1 case](#) associated with this application.

There is [1 property](#) associated with this application.

Building Warrant application details for adjacent property

Balfour Engineering Consultancy Ltd

Suite 4016, Mile End, Abbeymill Business Centre, 12 Seedhill Road, Paisley PA1 1JS

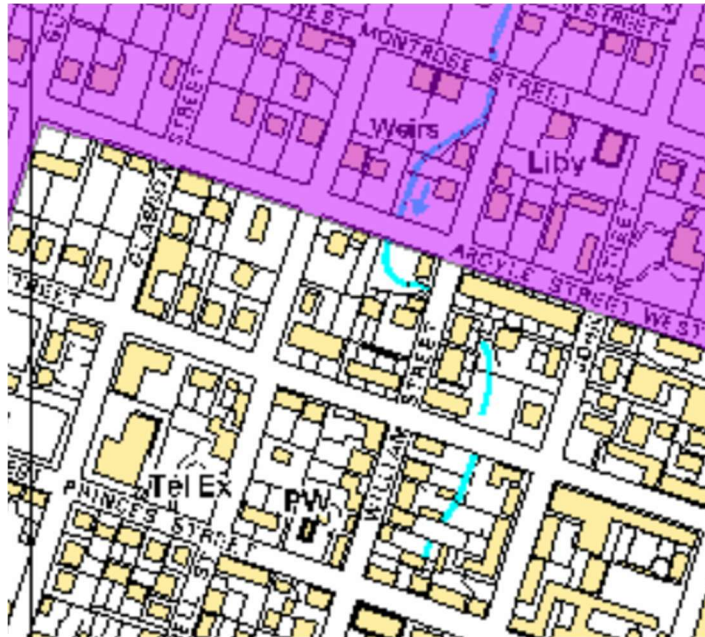
Tel: 0141 848 9708

E Mail: info@balfourengineering.co.uk Web: www.balfourengineering.co.uk

Iain Balfour, Director, B.Eng (Hons.) C.Eng M.I.Struct.E. Registered in Scotland No. SC291795

Appendix C

Listed Building Search Results



Extract from Upper Helensburgh Conservation Area Map by Argyle & Bute Council

Summary

Category
B

Local Authority
Argyll And Bute

NGR
NS 29209 82753

Date Added
30/06/1993

Planning Authority
Argyll And Bute

Coordinates
229209, 682753

Burgh
Helensburgh

Description

Circa 1830. 2-storey and attic, 3-bay symmetrical flatted villa with classical porch. Red sandstone rubble, rendered and line as ashlar to

S elevation, harled to W, ashlar dressings. Base and lintel courses, raised painted margins, pilaster quoins to S elevation, quoin strips to N.

S (ENTRANCE) ELEVATION: panelled fanlit door to centre with deep half-glazed vestibule door, projecting timber portico with dentilled cornice and incised Greek fret decoration to piers. Window flanking,

3 symmetrically disposed windows at 1st floor.

W (CAMPBELL STREET/SIDE) ELEVATION: 3 bays; window to centre and outer right, blind to outer left at ground and 1st floor.

N (REAR) ELEVATION: stone forestair to enclosed timber porch to centre at 1st floor.

E ELEVATION: mirror image of W elevation.

4-pane sash and case windows to S, 12-pane elsewhere. Grey slate roof, ashlar coped skews, slate hung piended dormer flanked by gabled canted dormers to S, single dormer and rooflights to N, rendered corniced stacks to gables, original cans.

OUTBUILDING TO NE: rectangular-plan, red sandstone rubble, 2 boarded doors to S and W elevations, piended slate roof.

Extract from Historic Environment Scotland Website Indicating listed status

Balfour Engineering Consultancy Ltd
Suite 4016, Mile End, Abbeymill Business Centre, 12 Seedhill Road, Paisley PA1 1JS
Tel: 0141 848 9708

E Mail: info@balfourengineering.co.uk Web: www.balfourengineering.co.uk

Iain Balfour, Director, B.Eng (Hons.) C.Eng M.I.Struct.E. Registered in Scotland No. SC291795