

STRUCTURAL REPORT

70, 72, 74 and 76 WATH ROAD, ELSECAR

Introduction

These four properties are part of a short terrace of 10 houses along Wath Road, which lies in a conservation area. The houses have Grade 2 listed building status and are as described in the Heritage Statements. Nr 70 is 3 storeys with a pitched roof, with a hip. Nrs 72, 74 and 76 are 2 storeys with pitched roofs.

Both the front and rear elevations are in random sized coursed, honey coloured soft local sandstone. The elevations are as illustrated on the attached photographs 1 to 9.

The roofs to all properties are covered with Welsh thin slates. The roofs were strengthened a number of years ago and they appear well aligned and with no obvious defects.

There are brick chimneys, which appear to have been repointed recently and are in a reasonable condition.

Elevations and floor plans are shown on Drawing Nrs SL (2) 01 and SL (2) 02 and on the Architects details.

Structural Condition of the Properties and Proposals

To both the front and rear elevation of all 4 properties, the sandstone facing is very seriously eroded, leaving deep concave holes to many areas. Cementitious render has been applied to many areas to build back the stone, although this appears eroded and loose in places. Eroded joints between the stone walling have also been made up with cement based mortar. The degree of erosion is such that local areas of the wall are considered to be at risk of collapse. This is shown on the attached photographs.

A small gable wall is present between Nrs 70 and 72 to both the front and rear between the 2 storey roof to Nr 72 and the 3 storey roof to Nr 70. To the front, isolated stones appear to require replacement only, although a close inspection will be made when the properties are scaffolded and access is available. To the rear, the gable is fully rendered. It is proposed to fully remove this render and inspect the underlying stonework, which will be replaced as necessary.

To both the front and rear elevation, there is a mixture of stone and concrete lintels and cills. It is proposed to replace all defective units and those in concrete with new matching stone units.

To the rear elevation of Nr 70, a 2 brick square chimney has been added but not bonded to the wall. This extends up to just below the 3 storey eaves. It is intended to demolish the chimney and make good the wall.

All timber and brick outbuildings to the rear are to be demolished, subject to the Conservation Officer's approval.

With regard to replacing the outer leaf of stone, it is proposed to fully prop the first floor and roof, as illustrated on Drawing Nr SL (02) 02. Once fully scaffolded, the outer leaf of stone will be carefully demolished by hand. It is anticipated that most of the rubble core to the wall will be lost. The inner leaf will be made good as necessary. Resin fixed wavy tailed wall ties are to be fixed to the inner leaf. The outer leaf of stone will then be rebuilt, filling the rubble core as work proceeds.

Internal Alterations and Adaptations

To Nrs 72 and 76, it is proposed to remove the triangular chimney breast within the ground floor kitchen. A trimmer beam and steel plate are to be provided at first floor to support the small chimney breast above.

No other internal structural works proposed. Minor additions and alterations to first floor stud partition walls are as detailed by the Architect.

Conclusions

To both the front and rear elevation, the extent of the deterioration and erosion of external stonework is so advanced that the walls are considered to be at risk of local collapse. It is recommended, therefore, that the stone facing be replaced at the earliest opportunity. The only viable alternative to this would be the demolition of the houses and, since they form part of a terrace of largely privately owned houses, this would present significant problems.

To enable the rebuild, significant temporary support will be required. Propping details are shown on the drawings.

It is proposed to replace all damaged and mismatched lintels and cills with stone units in character with the original.

Internally, only minor alterations of minimal structural significance are proposed. These are intended to improve the functional usage of the properties.

APPENDIX A

PHOTOGRAPHS



Photo 2 Front Elevation of 72 Wath Road at First Floor level



Photo 1-Front Elevation 70+72 Wath Road



Photo 6 Rear Elevation 70+72 Wath Road



Photo 5 Front Elevation 74 Wath Road



Photo 9- Rear Elevation 70+72 Wath Road

APPENDIX B

DRAWINGS