

a retail unit, particularly with a tearoom facility, would produce different requirements for heating, cooling and ventilation. That said, it would be an exciting prospect to have the building developed for retail purposes using sustainability drivers.

## 4.2 Building Standards and Legislation

Appendix C provides a brief analysis of the Building Standards (Scotland) Regulations in so far as they would impact on the development of 73-77 Trongate for office use, mixed use and retail purposes. The various demands on the building are quite different under the three scenarios: the development of the building to provide offices for a single organisation is the least onerous in terms of escape stair provision and the need to fireproof certain elements of construction. The maximisation of construction materials such as timber - as opposed to concrete - is more readily achieved in the office scenario than in a mixed use situation (where a separating floor would be required between differing uses) or in a retail option (where a compartment floor would be required between the basement and the remainder of the building).

Unfortunately, real constraints are placed on the development potential of the building by the proximity of the rear wall to the side elevation of the Tron Theatre. The bowed windows of the former St. Mary and St. Anne Kirk are extensively glazed, and the risk of fire spread across the narrow lane which separates the two buildings greatly reduces the area of openings permissible on the rear façade of 73-77 Trongate. Under the office scenario, where it would be desirable to maximise openings on the south wall, windows would have to be strategically placed, and in limited numbers, in order not to present a hazard to both structures. Similarly, the restricted potential for back-lit display units on the south wall would impact on the manner in which any retail unit was designed. Provision of fire fighting facilities within the building increases the area of openings permitted, although the benefits to the internal environment through the provision of a greater number of windows would have to be carefully weighed up against the financial implications of a fire fighting installation.

Finally, while the Building Standards must of necessity provide a framework within which the building is developed, so too will the provisions of the Disability Discrimination Act inform the layout of the building irrespective of its end use. These provisions are to be embraced, and need not impact on the building in anything other than a positive fashion. They will include the need to provide dedicated car parking as close as possible to the building; to provide a level entrance and to enable ease of vertical and horizontal movement throughout the building (which should include reducing glare from natural and artificial sources and designing signage to be accessible to all); to make

adequate provision for toilets, changing facilities and showers which are as flexible as possible; to carefully design fixtures, fittings and equipment, as well as lighting, heating and communications; and, above all, to provide an effective evacuation strategy from the building in the event of a fire. None of these requirements need be in conflict with the desire to develop the building in line with sustainability principles: indeed, they will maximise the accessibility and long-term usefulness of the building, and create a better environment for a greater number of its occupants and users.

### 4.3 Sustainability Best Practice

The following sections respond to the requirement that this study assess the potential of Nos. 73-77 Trongate in Glasgow for restoration and re-use as a demonstration building promoting best practice according to sustainable development principles. For the purposes of the discussion, the office scenario was adopted and analysed. Most of the sections are of necessity site specific, although a number of the recommendations might be broadly applied to buildings of a similar construction. The nature of the building itself – its construction and the condition of the existing fabric – also raised a number of interesting issues which have been discussed, albeit in the knowledge that they may not be appropriate to 73-77 Trongate, but to other historic buildings undergoing restoration while applying similar principles. Finally, although this study examines the re-use of an existing building whose construction generates certain scenarios, many of the issues referred to would be appropriate in a newbuild situation.

#### 4.3.1 73-77 Trongate, Glasgow – Primary Structure and Materials

The retention and refurbishment of our buildings is generally less wasteful of materials than building from afresh. The building at Nos. 73-77 Trongate is of architectural merit (being Category ‘C’ listed), so any repair or intervention work will require to achieve Listed Building Consent and to be to the satisfaction of Historic Scotland.

The front elevation of the property is constructed of sandstone, now covered in layers of paint. It can be expected that removal of the paint will reveal cementitious repairs and pointing, all of which should be removed prior to restoration work. The indenting of stone repairs and use of lime pointing will be appropriate in this instance. The key issue will be the treatment used to remove the outer layer(s) of paint (see section 4.3.4). The process of cleaning the paint from the adjoining Tron Steeple ultimately required the application of several coats of chemical paint stripper.

The rear elevation is finished in a cement-based roughcast. This will require to be removed, new openings formed and – depending on the