

## **PRACTICE INFORMATION**

# **A J BALFOUR ASSOCIATES**

**Consulting Civil & Structural Engineers**

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**PLEASE NOTE OUR NEW CONTACT DETAILS**

**CONTENTS**









1. The Practice
2. Design Aims
3. Background
4. Office Accommodation
5. Resources
6. Engineering Capabilities
  - Civil Engineering
  - Structural Engineering
7. Construction (Design and Management) Regulations (CDM)
8. Training
9. Professional Indemnity Insurance
10. Financial Standing
11. Web Site.
12. Curriculum Vitae of Staff
13. Projects commissioned by Practice
14. List of Clients
15. Sustainability Policy Statement

**PRACTICE INFORMATION**

**THE PRACTICE**

A J Balfour Associates offers a consultancy service, in most branches of Civil and Structural Engineering, to Clients throughout Central Scotland in both the Public and Private Sectors.

The Principal and staff have a broad base of experience in many sectors, particularly in relation to the following fields:-

New Build Housing.	
Housing Rehabilitation.	
Commercial & Industrial Projects.	
Roads, Drainage Works (SUDS) and Site Infrastructure.	
Over-roofing, Inspection and Repair of Multi-storey Tower Blocks	
Demolition.	
Stock Condition Surveys	
Structural Investigations and Reports of Building Defects	

A J Balfour Associates is a highly professional team which is able to mobilise its experience and resources in a prompt and efficient manner to the benefit of its Clients.

**DESIGN AIMS**

A J Balfour Associates believe that Client satisfaction is paramount. Our commitment is to meet your requirements in terms of Client objectives, quality, value, budget and time scale using economic, practical solutions.

We have a dedicated policy of solving our clients' needs and problems by using Teamwork, Innovation, Best Value and forward thinking ideas yet maintaining commercial awareness and Sustainability.

**BACKGROUND**

A J Balfour Associates was formed in 1990, following the dissolution of Scottish Homes Technical Practices, where Alan Balfour was Engineering Manager in one of the Practices.

**OFFICE ACCOMMODATION**

On 29 March 2009, A J Balfour Associates relocated to their new Pavilion in the Panorama Business Village situated to the north of the Queenslie Area, 5 miles east of Glasgow City Centre, with convenient links to Junction 11 of the M8 Motorway.

**RESOURCES**

A J Balfour Associates is staffed by an experienced and enthusiastic team headed by a professionally qualified Engineer together with a Senior Incorporated Engineer, a Technician Engineer, Graduate Engineers, Trainee Engineer and administration staff, with collectively some 100 years experience in the housing and industrial sectors.

It is the policy of the Practice to expand staffing to levels commensurate with our work load.

The Practice use the latest computers and software to enhance our design, drafting and word processing skills. Currently we operate AUTOCAD drawing package ("the industry standard") and CADS design structural software packages for frame analysis and specific design of concrete, steel and masonry elements. We have also invested in the drainage package WINDES, which helps to calculate SUDS run off, Flood Storage, attenuation and flow control for a contributing area.

We enjoy a close team working and occasionally Partnership relationship with a number of Specialist Services Agencies, Consultants, Testing Laboratories (providing mineral, geotechnical, environmental, metallurgical, analytical, etc services.), and with Local Authorities / Public Utilities, thus enabling us to provide a fully comprehensive service to our Clients.

## DESIGN CAPABILITIES

A J Balfour Associates provides in-depth expertise and sustainable solutions in Civil and Structural Engineering from inception of a project, through all stages of design and construction to finalisation of accounts, statutory adoptions, etc. We aim to provide measurable value and a sustainable product for future generations which can be adapted at reasonable cost if necessary.

### 1. Civil Engineering Services

A summary of the services we provide includes:-

- Site Appraisal/Feasibility Study
- Site Survey
- Geotechnical, Mineral and Environmental Analysis of sub-soil
- Design of the Works - including Roads and Drainage
- CDM Risk Analysis
- Statutory Bodies Applications -
  - Planning, Building Control,
  - Roads Construction Consent, Roads Scotland Act,
  - Sewerage Scotland Act
  - Public Utilities liaison
  - Recommendations on Conditions of Contract
- Preparation of Bill of Quantities and Specification
- Issue of and Reporting on Tenders
- Post Contract Supervision, including financial certification and cost control reports
- Monitoring Progress
- Final Certification and Valuation
- Preparation of as-built record drawings

We have a close working relationship with local authorities, particularly roads and drainage departments and are therefore able to speed up the statutory approvals requiring Roads Construction Consents and Drainage approvals. Our track record in achieving early approvals, is in our opinion, "exceptional".

### 2. Structural Engineering Services

In addition to undertaking many of the functions detailed above, the Practice will carry out the design of structural elements from foundations to superstructures, in the following materials:

- masonry / brickwork
- steel
- concrete
- timber
- other newer and non traditional materials

all to the appropriate British Standards, Eurocodes,, Codes of Practice and Building Regulations.

### Experience is held in the fields of

#### • structural rehabilitation work including:

- reporting on the structural condition of properties
- assessing the structural capabilities of the various elements
- sampling and appraising of concrete components for chloride and carbonation attack
- sampling and appraising wall ties for corrosion and estimation of future useful life expectancy
- recommendations for structural repairs are carried out by the Practice.

#### New Build housing

- is our main field of engineering excellence..
- We are an active team player throughout the project..

#### Structural surveys and Condition surveys

- undertaken on many various non-traditional low rise-house construction types, including brick, timber, steel and concrete; several of these involving house types designated as defective under the Housing (Scotland) Act.
- multi storey inspection and reporting of several estates for possible stock transfer
- Structural Inspection of 10 No secondary schools of varying construction, including masonry, concrete and steel frames, timber etc, as part of Private Finance Initiative

### Multi-storey tower blocks

- structural condition surveys and instigation of remedial works
- design of steel structure, aluminium clad over-roofing systems on a number of tower blocks.

The survey and design functions often overlap, between Civil and the various forms of Structural Engineering and we have other significant experience in the **Commercial & Industrial** sectors

Each project is controlled under the close supervision of a qualified Engineer.

We will operate as part of a Project Team, as lead Consultant or as Project Managers. In the latter instances we can recommend suitably qualified professionals to complement ourselves.

### CONSTRUCTION (DESIGN and MANAGEMENT) REGULATIONS (CDM)

The CDM Regulations imposes additional responsibilities on the client, designer and contractor with regard to Health & Safety.

A J Balfour Associates are fully aware of their responsibilities as designers and ensure that Health and Safety is given proper consideration from the outset of a project. Our staff are familiar with the risk assessment procedures and regard safety as paramount.

### TRAINING

Staff awareness of advances and developments in Safety, Technology, Legislation, etc, is considered essential to maintain our level of knowledge and client confidence in the service which is being provided.

Consequently our staff attend appropriate training seminars (in house and externally) and receive technical journals to maintain their Continued Professional Development

Our Training programme covers a wide and varied range of topics, including, Sustainability, Value, Partnering, Geotechnical, Structural Engineering, Health & Safety, Construction Law and Information Technology.

### FINANCIAL STANDING

Our Bank is the RB S, Business Direct, clients are at liberty to contact our Bank for a financial reference through their own Bank if necessary.

### WORLD WIDE WEB SITE

We have Broadband providing access to the Internet for sending & collecting e-mail and digital file transfer. Thus making the instant transfer of drawings and documents between clients and other members of the design team smooth and efficient. Facilities for universal PDF document format transfer between all parties is also available.

Our web site is live on-line giving information on the practice and its activities. Please take the opportunity to visit at [www.balfourassociates.co.uk](http://www.balfourassociates.co.uk)

### PRACTICE INSURANCE DETAILS

A J Balfour Associates have the following Practice Insurances, verification is appended.

#### PROFESSIONAL INDEMNITY INSURANCE

- |                      |                                      |
|----------------------|--------------------------------------|
| • Broker             | Aon Risk Services, Professions Group |
| • Insurer            | Brit/QBE                             |
| • Limit of Indemnity | £5,000,000 any one claim             |

#### EMPLOYERS LIABILITY INSURANCE

- |                      |                                     |
|----------------------|-------------------------------------|
| • Broker             | Aon Risk Services, Commercial focus |
| • Insurer            | Norwich Union                       |
| • Limit of Indemnity | £10,000,000                         |

#### PUBLIC LIABILITY

- |                      |                                     |
|----------------------|-------------------------------------|
| • Broker             | Aon Risk Services, Commercial focus |
| • Insurer            | Norwich Union                       |
| • Limit of Indemnity | £5,000,000                          |

## CURRICULUM VITAE of Relevant Staff of

### A J Balfour Associates

#### Consulting Civil & Structural Engineers

19 Blairtummock Place, Glasgow, G33 4EN,

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### Alan J Balfour BSc(Hons) CEng MICE

**PROFESSIONAL QUALIFICATION** - CHARTERED ENGINEER (1983),  
Member of Institution of Civil Engineers

**EDUCATION** - **BSc(Hons) Heriot Watt University (1979)**

### EMPLOYMENT

**Principal** **1990 to date**  
**A J BALFOUR ASSOCIATES** GLASGOW, SCOTLAND

Civil and Structural Engineering Consultant involved mainly in the social housing sector. Has extensive experience of working within and managing multi-disciplinary teams from the conception stage through to construction and commissioning. This includes negotiated projects and those undertaken in Partnership or in Alliance with the Client and other partnering contractors. A number of projects were undertaken using performance against agreed KPI's. Has direct input into ensuring the success of a project, via Health & Safety, Environmental performance allied to the Commercial Success, programming and Quality of projects. Extensive Planning and Programming experience and am very IT aware and literate. Track Record of successful teams completing projects on time and within budget. Generally advising on civil & structural designs from foundations to superstructure, including design, maintenance and repair of all types of structures from low rise non-traditional to multi-storey, system built properties. Experience of inspection and repairs to building structures, including elements of concrete, steel and masonry, in multi storey and non traditional house construction. Experience in Civil Engineering sector of design and alteration to site infrastructure, involving, roads and drainage, SUDS and associated site investigations. Traffic Management and Traffic calming Schemes have also been undertaken in accordance with Local Authority Roads Consents. Involved with Structural Risk Assessments / 30 year life cycle costs for large City Councils and Scottish Homes stock transfers together with many structural inspection of several multi storey tower blocks, and non traditional housing, including BISF, Weir Phoenix, Atholl, Weir steel, Orlit houses and 10 No. Secondary Schools in Glasgow.

**Engineering Manager** **1989 to 1990**  
**SCOTTISH HOMES, TECHNICAL PRACTICE** GLASGOW, SCOTLAND

Engineering Manager of section within Scottish Homes responsible for design, inspection, maintenance and repair of Scottish Homes "own stock" in the Glasgow Area, including multi-storey inspections and repairs.

**Senior Engineer** **1988 to 1989**  
**SCOTTISH SPECIAL HOUSING ASSOCIATION (SSHA)** GLASGOW, SCOTLAND

Senior Engineer of section within SSHA responsible for design, inspection, maintenance and repair of Scottish Homes "own stock" in the Glasgow Area, including multi-storey inspections and repairs.

**Chartered Engineer** **1984 to 1988**  
**STRATHCLYDE REGIONAL COUNCIL** GLASGOW, SCOTLAND

#### Department of Sewerage

Involved in the inspection, design, maintenance and repair of the mainly Victorian sewerage systems in the Glasgow Area, from small diameter pipes to large 2m diameter brick sewers.

**Chartered Engineer/Engineering Assistant** **1979 to 1984**  
**CUMBERNAULD DEVELOPMENT CORPORATION** CUMBERNAULD, GLASGOW, SCOTLAND

**Chartered Engineer** - 1983 to 1984 Industry and Main Drainage Section  
Involved in the design and supervision of site development, roads, drainage, Industrial Developments, foundations, concrete floors and associated structures.

**Engineering Assistant** - 1981 to 1983 Main Roads Section

Involved in the design and supervision of Main Roads carried out under Agency agreements with Strathclyde Regional Council.

**Engineering Assistant** - 1979 to 1981 Industry and Main Drainage Section

Involved in the design supervision of site development roads, drainage, Industrial Developments, foundations, concrete floors and associated structures.

Traffic Management Schemes, Traffic Surveys and feasibility studies were also undertaken during this time at CDC

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PROFESSIONAL QUALIFICATION - INCORPORATED ENGINEER  
MEMBER OF INSTITUTION OF CIVIL ENGINEERS

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**EMPLOYMENT HISTORY**

- 1990 to date**                      **Incorporated Engineer -                      A J Balfour Associates**  
 Very experienced Project Engineer in the design of the Civil and Structural Engineering aspects and drawing work for new build and rehab housing projects, for both private developments and Housing Associations. Extensive experience has been gained in the structural problems of existing traditional and non traditional house types. Involvement with environment problems such as river erosion and sewerage outfall has also been undertaken. Involved with structural inspection of 10 No. Secondary Schools in Glasgow and many non traditional house surveys. Skill in structural computer based programmes, AutoCAD and also experience in the use of Micro Drainage, the industry standard for SUDS drainage.
- 1984 to 1990**                      **Technical Officer                      -                      SSHA/Scottish Homes**  
 Team member of multi-disciplinary teams involved in new build and modernisation work of Scottish Homes/SSHA Property. This involved liaising with in-house professionals as well as external consultants involved with the projects.
- 1978 to 1984**                      **Technician                      -                      SSHA, Glasgow Office**  
 Gained valuable experience in housing developments within the city boundaries dealing with problems such as previous uses of site, existing services and proximity of existing buildings and the condition of existing buildings.
- 1977 to 1978**                      **Technician                      -                      SSHA, Edinburgh Office**  
 Working in the Structural Engineers section , learnt and gained experience in the structural aspects of housing developments.
- 1973 to 1977**                      **Trainee Technician                      -                      SSHA, Edinburgh Office**  
 Gained experience in road and drainage design and drawing office work including land surveys.



STEVE SLICER

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**ENGINEERING TECHNICIAN**

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**EMPLOYMENT HISTORY**

**1990 to date**

**Senior Technician - A J Balfour Associates**

Serving as both Project Team member and in a co-ordinating role, has been involved in the assessment, design, documenting, supervision and budgetary control of a wide range of industrial, commercial and residential projects. Presently involved with the structural inspection of several multi-storey tower blocks in connection with building condition surveys and large stock transfers.

The latter has involved the inspection and assessment of traditional, non-traditional and high rise properties including, in 1995, a programme for the survey and repair of 11 blocks of multi-storey flats.

Has also had primary involvement in the over roofing of a number of multi-storey blocks.

Recently involved with structural inspection of several multi storey tower blocks, Weir Phoenix, Atholl, Weir steel, Orlits houses in Glasgow and 10 No. Secondary Schools.

Experience of reporting on structural 30 year life cycle costs for several large stock transfers.

Skill in structural computer based programmes, AutoCAD and also experience in the use of Micro Drainage, the industry standard for SUDS drainage.

**1977 to 1990**

**Technician/Senior Technician - SSHA/Scottish Homes**

Initially engaged as a structural technician on new build housing projects, Mr Slicer's interests evolved to encompass the assessment, repair and long term maintenance of the agency's stock with emphasis on non-traditional and high rise construction.

Mr Slicer served on multi-disciplinary teams comprising in-house professionals and personnel from local authorities and the BRE.

This period included 15 months on site inspecting and sampling multi-storey blocks and was followed by subsequent programmes of repair, re-pinning and re-cladding contracts.

**1973 to 1977**

**Trainee Technician - Bullen & Partners**

Assisted on numerous structural and civil engineering projects including schools, telephone exchanges, sports stadia and railway tunnels.



DAVE WATSON BEng(Hons)

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**GRADUATE ENGINEER**

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## **EMPLOYMENT HISTORY**

### **June 2008 to Present Graduate Engineer - A J Balfour Associates**

Following gaining an honours degree in Civil Engineering, returned to A J Balfour Associates as a Graduate Engineer.

Continued gaining experience of structural computer based programmes and also skill in the use of Micro Drainage, the industry standard for SUDS drainage.

Experience in planning and utility application forms

Condition Surveys of multi storey blocks and other non-traditional housing..

Worked on various social housing projects, including design and detail of

Foundations, structural elements, levels, roads, & drainage layouts and details

### **April 2007 to Sept 2007 - Student Engineer - A J Balfour Associates**

Summer Student, gained experience using AutoCAD, Word and Excel and other computer based programmes . Responsibilities included design work on Structural Analysis programmes including CADS, completing design drawings on AutoCAD, drawing issues to various parties .

Experience of Building Fabric and crack monitoring/movement surveys out on historical buildings.

Worked on various social housing projects, including design and detail of

Foundations, structural elements, levels, roads, & drainage layouts and details

### **June 2006 to Sept 2006 - Student Engineer South Lanarkshire Council Roads & Transportation**

Summer Student with Roads department involved in by working with other staff members and the use of various computer programmes such as AutoCAD, Word, Excel, ARCADY, PICADY and South Lanarkshire's own map based programme.

Gained site experience in the design and setting out of road works and bridges .

**PROJECTS UNDERTAKEN BY THE PRACTICE**

A summary of our commissions, followed by a list of the Clients and organisations with which we have worked, is given below.

**MODERNISATION/REHABILITATION**

**WINGET HOUSES,  
CARNTYNE GLASGOW  
STRUCTURAL REPAIRS**

Survey and appraisal between 2004-2005  
Assessment of 1000 houses.  
Pilot Scheme - Mar 2007 2 units,  
Structural Engineering Services for the  
assessment and repair of 1000no concrete  
houses.



**LOCHSIDE, COATBRIDGE  
BISF STEEL HOUSES, STRUCTURAL &  
FABRIC REPAIRS**

**Value £780,000 34 units**  
Structural Engineering Services for the  
removing of the existing steel & concrete  
cladding panels, conversion to timber frame  
and external insulated roughcast.  
Design Period - March 01 - June 01  
Contract Period - Aug 00 - March 02



**SPRINGBOIG, GLASGOW  
WEIR STEEL HOUSES, FABRIC REPAIRS**

**Phase 1 - Value £660,000 24 units**  
**Phase 2 - Value £770,000 38 units**  
**Phase 3 - Value £770,000 38 units**  
Structural Engineering Services for the  
removing of the existing steel cladding  
panels, conversion to timber frame and  
rebuilding of outer brick cladding.  
Ph1- Design Period - March 00 - June 00  
Ph1 Contract Period - Aug 00 - March 01  
Ph2 Contract Period - Dec 01 - Dec 02  
Ph3- Contract Period – July 05 - Feb 06



**Arden Phases 2A (3 & 4) £3.0m**

Civil and Structural design for the  
modernisation of 116 no fines flats reducing  
to 78 units of flats, maisonettes and villas by  
storey height reduction and new build  
extension.  
Externally, road closures together with  
provision of a new access road and parking  
bays contributed to a significant programme  
of street scape works.  
Completed - January 1992 (Phase 2A (3))  
August 1992 (Phase 2A (4))



**Windlaw Area B, Castlemilk, Glasgow  
£3.6m**

Civil and Structural design services for the conversion of 112 tenemental flats required the replacement of wall ties, provision of new build and bay window extensions and the creation of a special needs unit. Traffic calming and parking were provided as part of the overall Windlaw Traffic Management Strategy.



**Windlaw Area M, Castlemilk, Glasgow  
£2.9m**

Modernisation of 104 traditionally constructed flats required design for structural alterations and replacement of wall ties, alterations to the drainage system and provision of parking bays.



**Windlaw Area J, Castlemilk, Glasgow**

Modernisation and storey height reduction of traditionally constructed flats.



**LOCHSIDE, COATBRIDGE  
WHITSON-FAIRHURST, STRUCTURAL  
REPAIRS**

Pilot Scheme - Value £158,000 8 units,  
Phase 1 - Value £291,000 24 units  
Phase 2 - Value £524,000 28 units  
Phase 3 - Value £583,000 30 units  
Structural Engineering Services for the repair of Pre cast concrete framed houses.

**ROBROYSTON, GLASGOW  
WEIR STEEL HOUSES, FABRIC REPAIRS  
Value £3,000,000 106 units**

Structural Engineering Services for the removing of the existing steel cladding panels, conversion to timber frame and rebuilding of outer brick cladding. Complete January 2006

**LARKFIELD, GREENOCK  
ATHOLL STEEL HOUSES, FABRIC  
REPAIRS**

**Phase 1 - Value £400,000 24 units**  
Structural Engineering Services for the renewal of external insulation, including structural strengthening to steel sheet panels.  
Design Period - Dec 97-Mar 98  
Contract Period - June 98 - Nov 98

**Wishaw High School - Conversion to 29 flats** Structural services for the conversion of former high school into 39No flats  
This project was not advanced to site due to financial viability.

**IONA, Phase 1&2, Petersburn, Airdrie,  
Phase 1 -Value £1.1m**

**23 No modernised and 4 new build**

**Phase 2 -Value £1.2m**

**24 No modernised and 6 new build**

Civil & Structural services for the modernisation of 1960's, flat roofed terraced houses of 2 storey construction. One principal aim was to incorporate a pitched roof. Due to type of construction front and rear walls are non load-bearing and are being replaced with loadbearing timber frame panels. This project also includes the construction of several "infill" new build units.

Commission won following our involvement in the Feasibility Study for the area

Phase 1 1996

Phase 2 1998-99

**MULL, Phase 1, Petersburn, Airdrie,  
Value £1.5m**

Civil & Structural services for the modernisation of 44No terraced houses of 1960's, 2 storey construction.

Similar house type and construction to Iona houses (noted above).

Design Period - April-July 1995

Contract Period - April 1996 - May 1997

**224-230 Main Street, Renton Value £1.4m**

Structural services for the modernisation of conversion of 24No flats of 3 storey construction and the formation of 8No new build infill units.

Design Period - July 1994 to October 1994

Construction Period - March 96 - January 1997

**Westburn SNHC Steel Houses, Glasgow £2.3m**

Structural services in the removal of corroded steel sheeting from 100 cottages and 2 storey flats with timber frame construction constructed in the 1920's.

The design involved the replacement of the steel sheeting with plywood and the construction of a facing brick outer skin.

Contract Period

Phase 1 - Jan 1994 to Mar 1995 - £1.25

Phase 2 - April 1996 - Mar 1967 £1.05m

**Forgewood Estate, Motherwell**

Civil and Structural services for the comprehensive modernisation of 3 storey flats of no fines construction.

Commissions won following fee tender

**Phase 3A, £0.63m 18 units**

**Phase 3, £1.3m 42 units**

**Phase 2, £1.4m 48 units**

**Phase 1, £1.5m 42 units**

**Arden 2C (2), Glasgow £1.9m**

Civil and Structural services for the comprehensive modernisation of 56 units of 4 storey flats of no fines construction.

Input included structural investigation and analysis of pre-stressed concrete floor slabs, renewal of the drainage system and formation of new parking bays.

Commission won in competitive fee tender

Contract Period - April 1993 to July 1994

**Faifley Phase 11, Clydebank £3.1m**

Structural design services for the modernisation of 104 no fines flats including investigation and analysis of floor slabs and provision of new retaining walls.

Commission won in competitive fee tender

Contract Period - Phase A - November 1992 to January 1994

Phase B - July 1993 to October 1994

**Hutchesontown Phase IV, Glasgow £1.5m**

Civil and Structural services for the modernisation of 24 flats and 30 maisonettes in no-fines construction.

Major structural alterations to the building frontages were undertaken together with replacement of defective balcony slabs.

Contract Period - March 92 to November 93

**Windlaw Area H/I, Castlemilk, Glasgow £3.1m**

Civil and Structural services provided for major rehabilitation of 4 storey tenements in Wilson Block construction.

83 units reducing to 65 by height reduction to 2 and 3 storeys. Also included in this project were the provision of bay windows, new build extensions, replacement of corroded wall ties and the conversion of several flats into maisonettes.

Externally, traffic management measures were incorporated into the street scape to effect traffic calming, improve visibility and provide many new parking bays.

Contract Period - January 1992 to July 1993

**Arden 2C (1), Glasgow £0.5m**

Civil and Structural input to the modernisation of 16 no-fines 4 storey flats.

Completed - October 1991

**Arden 2B, Glasgow £1.5m**

Modernisation of 24 no-fines flats

**Arden 2A (2), Glasgow £0.5m**

Modernisation of 16 no-fines flats

**Newdykes, Kirkintilloch £1.3m**

Modernisation of 54 no-fines flats

**NEW BUILD**

**Dalquhurn Estate, Renton**

Civil & Structural Services for 278 units, low rise houses for Housing Association and private partner  
 Design Period Autumn 2006 - 2009  
 Construction Period Sept 2008-2011



**Renton, Dumbarton**

Civil & Structural Services for several phases of low rise houses for Housing Association, These project are procured under a "Partnering" agreement  
 Phase 8 - £5.2 - 18 housing units and 40 bed very sheltered housing  
 £3.2m - 48 units  
 Design Period Autumn 2005 - Oct 2006  
 Construction Period Oct 2006-2008  
 Phase 7 - £1.4 - 24 units  
 Phase 6 - £3.2m - 48 units  
 Phase 5 -£2.5m - 45 units  
 Phase 4, -£3.3m -68 units



**Lochfield phase 7, Easterhouse**

Civil & Structural Services for 34 units, 2 storey houses for Housing Association  
 Design Period May 2006 – December 2006  
 Construction Period Nov 2006-2008



**St Columbas, Viewpark**

Civil & Structural Services for 43 units, 2 storey houses for Housing Association  
 Design Period Sept2006 – December 2006  
 Construction Period Mar 2007-2008



**St Gabriels, Viewpark**

Civil & Structural Services for 32 units, 2 storey houses for Housing Association  
 Design Period Sept2006 – December 2006  
 Construction Period Mar 2007-2008



**Helenvale Street, Glasgow**

Civil & Structural Services for 2 blocks of flats, 4 storey houses for Housing Association  
 Design Period Autumn 2005  
 Construction Period Spring 2006-Feb 2007



### **Westwood Crescent, Hamilton**

Civil & Structural Services for 28 units, 2 storey houses for Housing Association  
 Design Period Sept2006 – December 2006  
 Construction Period Mar 2007-2008

### **Laighstonehall, Hamilton**

Civil & Structural Services for 74 units, 2 storey houses for Housing Association  
 Design Period Spring 2003 - Summer 2003  
 Construction Period Oct 2003-2006

### **Langside, Uddingston**

**phase 1** - for 26 units, 2 storey houses  
**Phase 2** - for 74 units, 2 storey houses  
 Civil & Structural Services  
 Design Period Spring 2002 - Dec 2002  
 Construction Period Spring 2003-2006

### **Leny Road, Deanston**

Civil & Structural Services for 10 unit, 2 storey houses for Housing Association, in Conservation Area.  
 Design Period Autumn 2001 - Summer 2002  
 Construction Period Summer 2003-2004

### **Westmuir Street, Glasgow**

Civil & Structural Services for 22 units, 2-3 storey houses and 12 unit Hostel for Housing Association  
 Design Period Autumn 2000 - Spring 2001  
 Construction Period Spring 2001-Feb 2003

### **Various Castlemilk sites, Glasgow**

Structural Services for 2 storey houses for Private Developer.  
 Site 1 - 124 units, Site 5 - 32 units  
 Site 5A - 16 units, Site 5B- 18 units  
 Site 7 - 56 units  
 Design Period 2000 -01  
 Construction Period 2000 - 2002

### **Renton, Dumbarton**

Civil & Structural Services for several phases of low rise houses for Housing Association, These project are procured under a "Partnering" agreement  
 Phasing

### **Nursing Home at Carrongrove, Falkirk, £1m**

Civil & Structural Services to develop site for 48 bed, 2 storey nursing home, carried out as a design and build for contractor.  
 Phasing  
 Design Period Spring - Summer 1996  
 Construction Period July 96 - Feb 1997

### **Dryburgh Gardens, Wishaw Phase 2**

Former school site within to develop 38No 2 storey houses for private developer  
 Design Period Spring - Summer 1998  
 Construction Period Autumn 98-1999

### **Site at Sloan Ave, Irvine**

Civil & Structural Services to develop site for 30 flats, 3 storey  
 Design Period Winter 1995  
 Construction Period Spring 96 - May 1997

### **Site at Lochearnhead**

Civil & Structural Services to develop steeply sloping site for 30 flats, 2 storey  
 Design Period Spring -Autumn 2000  
 Construction Period Summer 2000-2001

### **Site at Maddiston, Falkirk**

Civil & Structural Services to develop steeply sloping greenfield site for 46 houses/flats, 2 storey  
 Design Period Autumn 1995-  
 Construction Period Spring 97-Summer 98

### **Site at Cranhill, Glasgow**

Engineering involvement for Structural aspects for 118 houses on former school site.  
 Site has shallow mine workings which shall require to be consolidated  
 Design Period Summer 1995-  
 Construction Period Nov 1996 -1998

### **Bow Farm, Phase II, Greenock**

Appointment won as part of design team in a design and build competition for the construction of 90 units of 2 houses.

### **Whinhill Phase 1, Greenock £2.3m**

Appointment followed Tender to carry out Feasibility Study for the area  
 This site, formerly housed interwar flats of 2-3 storeys.  
 Due to the steeply sloping nature of the site extensive external works and retaining walls required to be designed.  
 The phase 1 proposed development comprises 45 2-storey units including flatted, semi detached and terraced houses.

Design April 1994 to Autumn 1994  
 Site works Spring 1995 to Summer 1996

**Whinhill Phase 3, Greenock £2.0m**

Appointment won following Fee Tender  
Similar problems with steep site as Phase 1  
Development proposes 38No 2-storey units.  
Design Jan 97 - September 1997  
Site works March 1998 to Feb 1999

**Airth, near Falkirk**

Site to develop 48No - two storey houses for two private developers, part funded by partnership agreements for housing association.  
This site has shallow mineworkings which required grouting.  
Design period Spring -Autumn 2000  
Construction Period Autumn 2000-2001

**Ibrox Street, Glasgow £1.3m**

This gap site, formerly tenements, required extensive Civil works in advance of the house erection in order to bring the area to a developable condition.

**Leader Street, Glasgow**

Former school site within City Centre to develop 40No 2 storey houses for private developer  
Construction Period Jan 98-Oct 98

**Airth Castle nr Falkirk**

Civil & Structural Services for development of 50 No 2 storey luxury detached villas for private developer  
Design Winter 95- spring 96  
Construction Period summer 96 - 98

**Miscellaneous Projects up to £0.25m**

These individual commissions vary in content from servicing plots for self build projects to full design of large detached houses and includes Design Certification, obtaining Building Warrant, etc

**MULTI STOREY BLOCKS - A DESIGN SOLUTION**

High rise properties present unique problems in terms of their structural capabilities and shortcomings as well as in matters of maintenance and management.

All blocks are subject to cyclic maintenance and require periodic monitoring inspections. These exercises are most speedily and economically carried out by suspending access cradles onto the face of the building supported by rigging erected on the flat roof deck.

In recent times many blocks have been over roofed against water ingress and condensation caused by cold bridging.

This has removed the opportunity for cradle access and leaves building owners faced with the expensive options of masted platforms or fixed scaffolds for even the most routine tasks.

When, in 1991, we were first approached to design such a roof, we appraised our Clients of the drawbacks of existing systems and established that they were keen to maintain the facility for cradle access.

We then designed a system of over roofing which still encapsulates and insulates the block but allows cradles to be erected when required.

This is achieved with no sacrifice in choice of form, colour or long term low maintenance. The structural steel framework is strong and versatile; the aluminium sheeting is virtually corrosion free and colour choice almost unlimited.

**Asbury/Belmar Court, Linwood £0.42m**

Two 18 storey brick clad blocks.  
 Commission to over roof these two blocks won following fee tender.  
 Design Period April -August 1995  
 Construction period - January 1996 - July 1996



**Carron Street Phase 2, Glasgow £0.3m**

Two 15 storey brick clad blocks.  
 Roof incorporated dormer features on all elevations.  
 Constructed - February to September 1992

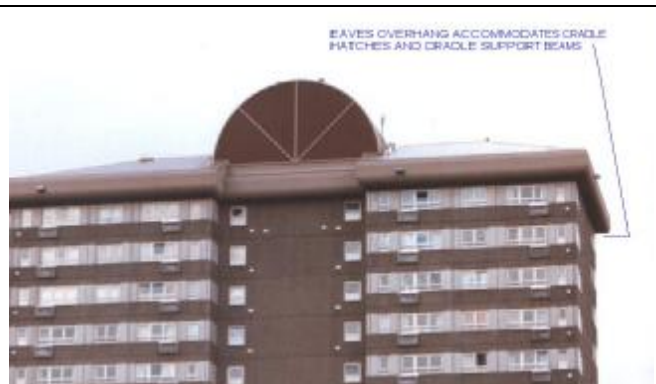


**Carron Street Phase 3, Glasgow £0.15m**

A plain hipped end roof this, the last of four blocks, reflected the design of the original block but incorporated our system for cradle access.  
 Constructed - December 1992 to May 1993

**Shaftesbury Street, Glasgow £0.23m**

An 18 storey Bison Wallframe block situated close to Charing Cross and overlooking the Kingston Bridge in Glasgow City Centre.  
 Close liaison with the City Planners was required before adopting a high domed roof for this sensitive location.  
 Constructed - September 1992 to May 1993



**COMMERCIAL AND INDUSTRIAL DEVELOPMENTS**

**New Offices for Housing Association**

**Value £0.75m**

New build development of Office accommodation, on brownfield site.

Piled foundations

Construction Period 2007 - 2008



**Extension to Engine Test Preparation Area, Prestwick, Value £1.1m**

Extension to aeroplane engine test cell to create 1000m<sup>2</sup> of preparation storage area.

Constructed in steel portal frame clad in profiled sheeting.

Construction Period Oct 2002 - Feb 2003



**Scottish Homes, Glasgow South Area, Office Relocation £0.45m**

Redevelopment of an existing 4 Storey tenemental block into new area offices



**Scottish Homes, Castlemilk Community Facility**

Modernisation/Alteration of an existing 4 Storey tenement block into new community facility



**Renton, Dunbartonshire**

Redevelopment of village shopping area for Health Centre, Offices, Shops, car parking and housing



**Extension to Clearwater House, Riccarton**

**Value £1.6m**

Large extension to SEPA offices at Heriot Watt University to create 900m<sup>2</sup> of laboratory space constructed in steel portal frame clad in facing brick and profiled cladding:

Construction Period 2001 - 2002



**Westerburn Street, Glasgow £0.3m**

Construction of a factory workshop unit with 2 storey offices in steel portal frame clad in facing brick and profiled steel sheeting.

Extension of unit 30m x 15m currently at design stage

Proposed Construction of Extension -  
Autumn 1999 - spring 2000

**Redevelopment of Payne Street, Glasgow**

Development of derelict building involving construction of a factory workshop unit with office in steel portal frame clad in facing brick and profiled steel sheeting.

Alterations to existing 4 storey warehouse and conversion into offices/workshops

Currently at design stage

Proposed Construction of Extension -  
Winter 1999 - summer 2000

**Carntynehall Road, Glasgow £0.2m**

Structural alteration, refurbishment and over cladding of an existing factory unit.

**Chinatown, Glasgow £0.6m**

Provision of Civil and Structural design services associated with the conversion of an existing city centre warehouse into Glasgow's Chinese Shopping Mall comprising 15 shop units and a large restaurant.

Special consideration was given to the design of the traditional Chinese pagoda entrance features using materials imported from the Orient.

**Carron Road, Falkirk £0.1m**

Design of a new mid-floor gallery for an existing furniture warehouse.

**Polmont Parish Church, Polmont £0.21m**

Refurbishment and repair following extensive fire damage, together with the formation of a new extension to the church hall.

**Shopping Centre**, structural inspection and appraisal for prospective Property Developer  
Investigation of recently built 21 unit shopping centre in West of Scotland

**Secondary Schools, Glasgow**

Structural inspection of 10 secondary schools in Glasgow for possible transfer under PFI initiative.

**Renton, Dunbartonshire**

Extension to village Community Centre.

## MISCELLANEOUS

### **Waste transfer station, Glasgow**

Due to the implementation of "Landfill Tax" it has become important to separate solids from liquid waste. This proposal creates separation plant, settling tanks and drying beds.

### **Lead Water Pipe Replacement, Various Sites**

Several contracts completed to replace the lead water service pipes within property boundaries where the responsibility to do so lies with the Landlord rather than the Water Department.

### **Carrongrove Estate, Falkirk £1.2m**

Site development and provision of roads and sewers for 64 plots for self build housing. Work includes land fill of site and diversion of a canal pipeline.

### **Land Drainage, Various Areas**

Provision of cut off drains to prevent surface water run off into gardens, etc.

### **Parking Provision**

Various contracts to provide parking bays adjacent to existing roads thus improving pedestrian safety and easing congestion.

### **Demolition Contracts**

#### **Various Demolition Contracts**

19 blocks of 2 and 3 storey flats to facilitate proposed re-development, Greenock.

3-closes to clear site for private development, Glasgow

13 closes of 4 storey no-fines flats to facilitate proposed regeneration of inner-city re-development, Arden, Glasgow.

Demolition contracts to remove vandalised lock-up garages, Langlands, Glasgow

Atholl steel houses - 100No

Parkhead - 50 houses

### **Balcony Balustrades**

Some older flatted properties have shown deterioration of the protective metal balustrades which presents potential danger to the public. We have replaced many of these with robust yet decorative metalwork, restoring safety and improving the visual amenity of the properties.

### **Roof Edge Protection to Multi Stories**

Project for the design and installation of permanent roof edge protection on 9No multi storey tower blocks

### **Castlemilk Drive, Glasgow, £0.5m**

Design of a streetscape involving bus bays and lay-by parking, all integrated into the overall Traffic Management Strategy of the Windlaw area

### **Manhole Surveys**

Providing technical expertise and computer analysis for the digital mapping, surveying and plotting of 5000 No manholes for Strathclyde Sewerage to provide data for their Drainage Area Studies, and to assist them in the creation of asset management records of their apparatus.

### **Footbridge Designs**

Design of foundations and check on calculations for Ekki footbridge to British Rail Station, Glasgow Structural Survey and report on dilapidated concrete footbridges and proposals for replacement bridges in Kilmarnock.

### **Landslip Control and River Retraining**

Development of scheme to prevent soil erosion of steep embankment due to action of river erosion on outside of curve.

### **Water Tank (Public water supply) Raft Floor/foundation design & detail**

Design of reinforced water retaining structure for public water tank

## STRUCTURAL CONDITION SURVEYS

We undertake the inspection, appraisal and preparation of reports and recommendations on all types of properties encompassing a range of construction elements.

As well as the more common forms of construction using timber, brick and concrete, we have investigated many non-traditional forms of construction such as :

- Steel framed and/or clad houses, Weir, Atholl, BISF
- Concrete House Types, Orlits, Dorrans, Whitson-Fairhurst, Cellular, FoamSlags, Unitroy, Winget
- Wilson Block, Crosswall Construction
- Blackburn
- No-fines concrete flats
- Bellrock
- Timber frame Houses
- Multi-storey flats, (9 - 24 storey)  
Various, precast concrete, panel system  
insitu concrete framed, no fines, JH DU blocks

Frequently associated with large stock transfers we are also asked to provide, life cycle costs, generally 30 years, covering the structural elements, which are likely to require, inspection repair during the remaining useful life.

Additionally and prior to Local Government reorganisation we provided support services to Glasgow District Council for structural inspections on their large housing stock.

### Structural Inspections of Glasgow Schools

Inspection and reporting on 10 No secondary schools as part of PFI transfer

**Structural Condition Surveys** on 6 No low rise blocks suffering from severe reinforcement corrosion to concrete columns

### Structural Inspection of Multi Storey Tower Blocks

Visual inspection of numerous tower blocks using cradle access and fixed masted platform access.

This included the appraisal and preparation of reports and recommendations on essential structural repairs.

Stock Condition survey of 3100 houses for transfer to new Housing Association

Stock Condition survey of 500 houses for transfer to new Housing Association

Structural Appraisal of 6 No blocks of 2-6 storey maisonettes at Cumbernauld, suffering from severe reinforcement corrosion to external concrete columns

Structural Inspection of 10 No Glasgow Schools as part of proposals to dispose of school buildings under PFI

**Structural Condition/Life Cycle Surveys** Visual inspection and selected testing of concrete elements in various tower blocks.

This included the appraisal and preparation of reports and 30 year life cycle costs, with recommendations on essential structural repairs. This exercise was primarily carried out with the potential for large stock transfers from Local Authority to community based Housing Associations

### Multi storey blocks inspected

- 7 No MKIII at Clydebank, 15 storey
- 2 No MKII at Langlands, Glasgow, 15 storey
- 6 No at Toryglen, Glasgow  
15 storey - 2 x MK III,  
10 storey - 2 x MK II & 2 x MK 1 No fines
- 5 No at Hutchesontown, Glasgow  
24 storey - 2 x MK 6  
9 storey - 3 x Tracoba
- 1 No JH DU block at Partick, Glasgow
- 3 No 15 storey MK III Springburn, Glasgow
- 3 No Bison MK 10 Springburn, Glasgow
- 4 No at Dundee, 4 x MKIII No fines
- 1 No 18 storey panel system at Anderston
- 3 No 9-11 storey panel system at Anderston
- 18 No 5-storey panel system at Anderston
- 29 No blocks at Broomhill, Glasgow
- 12 No blocks at Cumbernauld

### Structural Risk Assessment of Council Housing Stock

- Aberdeen - 59 No Multistory and 5,500 No Various Non-traditional Houses,
- Dundee - 26 No Multistory and 3,000 No Various Non-traditional Houses,
- Glasgow - 29 No Multistory
- Cumbernauld - 12 No Multistory and 2,000 No Various Non-traditional Houses,
- East Dunbartonshire - 300 No Various Non-traditional Houses,
- Argyll & Bute - 600 No Various Non-traditional Houses, and 5,400 Traditional Stock
- Falkirk - 3,100 Non Traditional Houses and 13 blocks of multi storeys
- Broomhill, Glasgow - 29 Blocks of multi storey

### Structural Inspection and Repair of Orlit Houses

Inspection and follow up repair contracts to defective concrete beams and columns on:

200 houses, Priesthill, Glasgow, repair works value £150,000 (Spring 1998)

300 houses, East Balornock, Glasgow, repair works value £180,000 (Spring 1998)

### MISCELLANEOUS SURVEYS

We are frequently instructed by private individuals to carry out a structural inspection of their property. As a result we have inspected many varied house types and reported on numerous defects, some of which may be trivial, others involving extensive repair or even demolition.

**FEASIBILITY STUDIES**

Day Care Unit - Wishaw

Community Centre, Bridgeton

Estate Regeneration, Carntyne, Glasgow

Estate Regeneration, Hamilton

Estate Regeneration, Laighstonehall, Hamilton

Estate Regeneration, Anderston, Glasgow

New Build Housing, Lochearnhead, Perthshire

Self Build Housing, Kilsyth

Industrial and Commercial Redevelopment, Port  
Dundas Business Estate, Glasgow

New Build Housing, Barrhead

New Build Housing, Killearn

Flats, Offices and Nursing Home, Falkirk

Estate Regeneration, Windlaw C & D, Glasgow

Estate Regeneration, Forgewood, Motherwell

Estate Regeneration, Strone Farm, Greenock

Estate regeneration, Bow Farm, Greenock

Shopping complex and Health Centre, Renton

Housing Association Offices, Renton

Estate regeneration, Mull & Iona Petersburn ,

Elderly Day Care Unit, Falkirk

Supported Accommodation Unit, Falkirk

**A LIST OF SOME OF THE CLIENTS AND ORGANISATIONS WE WORK FOR FOLLOWS:-**

Aberdeen City Council	Larkfield Housing Association
Abertay Housing Association	Linstone Housing Association
Antonine Housing Co-operative	Link Housing Association
Atrium Group	Linstone Housing Association
Argyll & Bute Council	Lochside Housing Association
Argyll Community Housing Association	Lochfield Park Housing Association
Avondale Securities Ltd	Mackenzie Construction
Ayrshire Housing	Magnum Discount Warehouse
Beechwood Developments	Miller Homes
Bow Farm Housing Association	Morrison Homes
Cairn Housing Association	New Gorbals Housing Association
Cantime Ltd	North Glasgow Housing Association
Carrongrove Ltd	North Lanarkshire Council
Charing Cross Housing Association	Nestlé UK Ltd
Chung Ying Investments	Ogilvie Homes Ltd
Church of Scotland	Parkhead Housing Association Ltd
City of Glasgow District Council	Pineview Housing Association
Cloch Housing Association	Protim Services Ltd
Clyde Valley Housing Association	Robertson Construction Group
Clydebank Housing Association	Rural Stirling Housing Association
Community Self Build Scotland	Sanctuary Scotland Housing Association
Communities Scotland	Scotia House Ltd
Cordale Housing Association	Scottish Homes
Cruden Building Renewals	Scottish Legal Life
Cruden Estates	SEPA
Cube Housing Association	Shettleston Housing Association
Cumbernauld Housing Partnership	Shire Housing Association
DJB Surveys	South Lanarkshire Council
DTZ Pieda Consulting	Southside Housing Association
Dundee City Council	Speirs Gumley Property Management
East Dunbartonshire Council	Strathclyde Regional Council
Falkirk Council	Stoddard Carpets Ltd
Falkirk Discount Warehouse	Sweater Shop Ltd
Ferguslie Park Housing Association Ltd	Sweeney Drainage
Fisher Hinksman Ltd	Thenew Housing Association
Forgewood Housing Cooperative	Thistle Housing Association
GAP Housing Association	TSB Bank PLC
Glasgow Housing Association	Turnberry Homes
G E Caledonian Ltd	Walker Sandford Property Management
Gemini Housing Association	West of Scotland Housing Association
Glasgow City Council	Whinhill Steering Group
GHA - Glasgow Housing Association	Whiteinch & Scotstoun Housing Association
Goodway Clear Ltd	Wiltshier (Scotland) Ltd
George Leslie Ltd	ZH Properties
George Rome Ltd	
Grattan PLC	
Halifax PLC	
Hambro Countrywide Relocation PLC	
Heriot Watt University	
Hillhead Housing Association 2000	
Home in Scotland	
IMP Ltd	
Kilbeg Housing Cooperative	
Kilbride Industrial Services	
Kilmarnock & Loudoun District Council	
Kelvin Homes Ltd	

**A LIST OF SOME OF THE  
HOUSING ASSOCIATION CLIENTS  
WE WORK FOR FOLLOWS:-**

Abertay Housing Association  
 Antonine Housing Co-operative  
 Atrium Homes  
 Argyll Community Housing Association  
 Ayrshire Housing  
 Bow Farm Housing Association  
 Cairn Housing Association  
 Charing Cross Housing Association  
 Cloch Housing Association  
 Clyde Valley Housing Association  
 Clydebank Housing Association  
 Cordale Housing Association  
 Cube Housing Association  
 Cumbernauld Housing Partnership  
 Ferguslie Park Housing Association  
 Forgewood Housing Cooperative  
 GAP Housing Association  
 Gemini Housing Association  
 GHA - Glasgow Housing Association  
 Hillhead Housing Association 2000  
 Home in Scotland  
 Kilbeg Housing Cooperative  
 Larkfield Housing Association  
 Linstone Housing Association  
 Link Housing Association  
 Lochside Housing Association  
 Lochfield Park Housing Association  
 Parkhead Housing Association Ltd  
 Pineview Housing Association  
 New Gorbals Housing Association  
 North Glasgow Housing Association  
 Rural Stirling Housing Association  
 Sanctuary Scotland Housing Association  
 Scottish Homes  
 Shettleston Housing Association  
 Shire Housing Association  
 Southside Housing Association  
 Thenew Housing Association  
 Thistle Housing Association  
 West of Scotland Housing Association  
 Whiteinch & Scotstoun Housing Association

**A LIST OF SOME OF THE  
OTHER PUBLIC CLIENTS  
WE WORK FOR FOLLOWS:-**

Aberdeen City Council  
 Argyll & Bute Council  
 City of Glasgow District Council  
 Communities Scotland  
 Dundee City Council  
 East Dunbartonshire Council  
 Falkirk Council  
 Glasgow City Council  
 Heriot Watt University  
 Kilmarnock & Loudoun District Council  
 North Lanarkshire Council  
 Scottish Homes  
 South Lanarkshire Council  
 SEPA  
 Strathclyde Regional Council

**A J BALFOUR ASSOCIATES**  
**ENVIRONMENTAL POLICY STATEMENT**

It is the objective of A J Balfour Associates to contribute where ever possible to adopt a responsible attitude to protecting the environment by developing innovative and sustainable design solutions.

A J Balfour Associates are committed to:

**Collaborating fully with all members of the project team and other Stakeholders to develop and adopt best practice sustainable development**

**Specifying materials which are durable, economic and don't require significant amounts of energy to produce**

**Consider as a first option, the use of recycled materials, eg construction demolition materials, and redevelopment sites against greenfield sites, where possible.**

**Making best use of existing infrastructure before embarking on new construction**

**Eco-design solutions by the removal or reduction of any environmental impacts associated with a product or a service at the design stage - e.g. by using less materials and energy; substituting toxic materials for non-toxic materials; designing a product so that it can be disassembled at the end of its useful life and its components re-used or recycled, etc.**

**Local sourcing of labour and materials to reduce energy consumption**

**Considering the effects of movement of spoil on site and corresponding waste production and disposal.**

**Working in Partnership with suppliers, and customers to promote effective and meaningful environmental best practice**

**Adopting sustainable drainage systems, including close liaison with SEPA, Water Authorities, local community,**

**Adopting measures to prevent pollution and adverse impact on the environment and local community**

**Training staff, suppliers and contractors to enhance awareness of environmental legislation, regulations, British Standards and Good Practice**

**Minimising waste, re-use and recycling where ever possible**

**Adopting energy efficient plant and materials**

**Balancing economic viability with environmental and social responsibility to provide lifetime design solutions**

**Developing a management system to demonstrate continual improvements in environmental and health and safety performance**

A J Balfour Associates desire to be seen to be adopting the Government definition of sustainable development

*Maintenance of high and stable levels of economic growth and employment; prudent use of natural resources, social progress which recognises the needs of all people; and effective protection of the environment*

and to;

*meet the needs of the present without compromising the ability of future generations to meet their own needs*