Construction Industry Council (CIC) has completed the first stage of developing the Design Quality Indicator (DQI), an assessment system to evaluate the design quality of buildings. The central aim of the DQI is to help raise the quality of buildings in the built environment by:

- informing client and user choices at the briefing stage of projects to ensure clarity of understanding and a shared vision;
- developing a better understanding about the value of good design;
- enabling a clear framework to communicate and discuss requirements for the design quality of buildings;
- and comparing and integrating the views of different participants in the design, procurement and building processes.

The DQI is designed to be used by everyone involved or interested in the development process, and at all stages of a project – from briefing, through design, during construction, and when a building is occupied and in use. The DQI is currently being developed as an...
What is the Design Quality Indicator?

The DQI

The DQI assessment

The purpose of the DQI

DQI questionnaire sample statements

The DQI visualisation

The DQI

The Design Quality Indicator is an assessment tool to evaluate the design quality of buildings. The development of the DQI has been led by the Construction Industry Council, with sponsorship from the DTI, CABE and Rethinking Construction. It has been developed for building users and visitors, and practitioners engaged in the commissioning, design, planning, production and management of the built environment.

The DQI focuses specifically on assessing and measuring the value of the product – the completed building – and is a unique tool for everyone involved in the production and use of buildings to gain more value from design. It has been developed to complement the existing set of performance measures from ‘Rethinking Construction’, in particular the Headline Key Performance Indicators which assess the process – the delivery of the building.

The DQI has been developed in collaboration with a wide range of
What is DQI

organisations, including architectural firms, engineers, contractors, trade associations, client bodies, research organisations, Government departments, local authorities, NHS Estates, and many other supporters, including all of CIC’s member organisations.

The DQI assessment

The DQI assessment uses a short, generic questionnaire which takes 20-30 minutes to complete. This questionnaire offers a simple and powerful method for analysing the design quality of buildings, and is designed for use by everyone involved in the production of a building – commissioners, financiers, clients, designers, developers, constructors, project managers, facilities managers, building users and visitors. It is applicable throughout the construction process – at the inception, design, and construction stages of a building, and when the building is occupied and in use.

Respondents evaluate the design quality of a building – or proposed building – by giving opinion to the headline indicators of ‘Build Quality’, ‘Functionality’ and ‘Impact’.

The questionnaire uses a range of indicators under these three main headings:

**Build Quality** relates to the engineering performance of a building, which includes structural stability and the integration and robustness of the systems, finishes and fittings.

**Functionality** is concerned with the arrangement, quality and inter-relationship of space, and the way in which the building is designed to be useful.

**Impact** refers to the building’s ability to create a sense of place, and to have a positive effect on the local community and environment. It also encompasses the wider effect the design may have on the arts of building and architecture.

True design quality is the outcome of the duality and interplay of these quality fields of ‘Build Quality’, ‘Functionality’ and ‘Impact’.
What is DQI

The statements in the questionnaire are organised to address a range of issues under each of these three quality fields, as shown below:

**The DQI Quality Fields**

<table>
<thead>
<tr>
<th>Functionality</th>
<th>Build Quality</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use</td>
<td>Performance</td>
<td>Form &amp; Materials</td>
</tr>
<tr>
<td>Access</td>
<td>Engineering Systems</td>
<td>Internal Environment</td>
</tr>
<tr>
<td>Space</td>
<td>Construction</td>
<td>Urban &amp; Social Integration</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Character &amp; Innovation</td>
</tr>
</tbody>
</table>

Design Quality is enabled by the deployment of resources used in the creation of the building, and each project has its own unique context. The pragmatic contextual issues of Finance, Time, Environment and Resources are issues high on the agenda of all commissioners, financiers and developers – and are addressed in the questionnaire by seeking professional responses.

**The purpose of the DQI**

The DQI is for use throughout the development process, and enables clients, developers and project teams to specifically set their design quality intentions for a building – along with other key issues such as time and cost. These are then tracked from inception, through design, during construction, and when the building is in use – to ensure that their quality requirements are met – or even exceeded. There are a number of benefits from the use of the tool:
At inception, the DQI allows clients to clearly elicit their requirements and sets a framework for specific consideration about the quality of the product. It helps to inform client and user choices and develops a better understanding of the value of good building design, develops the brief, sets benchmarks, and assists in understanding the trade-off between different choices.

At the design stage, use of the DQI helps drive improvements in the focus, quality and value of design by enabling quality to be discussed singularly and comprehensively, and to assist in evaluating different scheme proposals.

During construction, using the tool allows all involved in the procurement and building process to compare and integrate the whole team’s understanding about the project and its aims, and ensure that their aspirations are aligned and their intentions being met; and

When a building is completed and occupied, the DQI can be applied by construction professionals, building users, visitors, client representatives and passers-by for them to assess and evaluate their perceptions on the completed building – for greater understanding and to inform future projects.

The main purpose of the DQI is as a comparator and as an indicator, by allowing different respondents to compare and contrast their results, and by enabling the quality of different projects to be compared with each other.

**DQI questionnaire sample statements**

There are over 90 statements in the DQI questionnaire which respondents are asked to give opinion to. Some samples are:

- The building easily accommodates the users’ needs
- The lighting is versatile for different user requirements
- The building provides good security
- The circulation spaces and common areas are enjoyable
- The building is sited well in relation to its context
- There is sufficient daylight in the building
- The building is energy efficient
- The building makes you think

**The DQI visualisation**

The results from the DQI analysis are represented in the visualisation below.
What is DQI

Home
DQI Trailblazing Scheme

July 2002 – June 2003

What is the Trailblazing Scheme?

What are the benefits for me?

How do I get involved?

Trailblazing Conference

What is the Trailblazing Scheme?

From July 2002 the Construction Industry Council (CIC) is licensing 100 organisations and companies to use the Design Quality Indicator as part of the DQI Trailblazing Scheme. This is targeted to public and private clients, developers, financiers, design firms and contractors, and is the first opportunity for the DQI to be used.

The 100 Trailblazers will be licensed to use the DQI on a maximum of six construction projects at any stage of their development – inception/briefing, design development, under construction, or recently completed and occupied. Using the DQI will enable you to steer and influence the design process, align the design requirements of different participants in the project, assess the quality of the project at its relevant phase of development, and help you in achieving greater value from design.

The 100 Trailblazers will be given the opportunity to provide feedback about how they found the DQI to use, and to assist in the development of a fully versatile web-based DQI which will be publicly available in May 2003.

What are the benefits for me?

The benefits for involving your organisation or company in the Trailblazing Scheme are wide and varied, and include:

- Assessing the quality of design of your projects – proposed, under construction or completed;
- informing client and user choices at project briefing stage to ensure clarity of understanding and a shared vision;
• developing a better understanding about the value of good design;
• enabling you to clearly communicate and discuss your requirements for the design quality of your building;
• comparing and integrating your views with different participants in the design, procurement and building processes;
• comparing and contrasting your views of a building against the results from other users in the Trailblazing Scheme; and
• providing a measured focus on your building in the context of the many other process-based key performance indicators.

So far over 30 organisations have expressed interest in taking part as DQI Trailblazers, including Skanska, Buro Happold, WS Atkins, Colander, Mace, Sport England, Robert Adam Architects, Penoyre and Prasad Architects, Edward Cullinan, DEGW, Peabody Trust, Max Fordham LLP, RMJM, University of Cambridge, OGC.

**How do I get involved?**

We are targeting a wide variety of organisations and companies to be involved in the Trailblazing Scheme, to ensure the DQI is used by:

• 40 to 60 design companies
• 10 to 20 contractors
• 10 to 20 public client organisations
• 10 to 20 private client organisations
• 5 to 10 others (school, universities, etc)

A license fee of £300 (+VAT) is required for use of the DQI, which will enable your organisation or company to be fully involved in the DQI Trailblazing Scheme. The licence form to use the DQI is available as a PDF by clicking below:

[Trailblazing licence](http://www.dqi.org.uk/trailbla.htm)

To register as a DQI Trailblazer please contact:

We will be accepting new Trailblazers until the end of the first week of December 2002.

William Hawkins
Construction Industry Council
26 Store Street
Trailblazing Conference

To obtain feedback from the process, we are holding a Trailblazing Conference, for all Trailblazers, on the 11 December 2002. If you are a Trailblazer, or have a further interest in the DQI and would like to attend please email dqi@cic.org.uk to register.
Role of DQI Facilitators

Training

Role of DQI Facilitators

To assist Trailblazer organisations with using the DQI, CIC has established a Register of DQI Facilitators. Each Facilitator has attended an informal two-hour Workshop to be versed on the process and protocol for applying the DQI tool, and to assist with its implementation on building projects. There are two main types of DQI Facilitator:

- Independent individuals whose role is to assist Trailblazer organisations to use the DQI on their building projects
- Individuals within Trailblazer organisations whose role is specifically to facilitate the use of the DQI on their own organisations building projects

The role of the DQI Facilitators is to present and explain the DQI tool to the organisation wishing to use it, and to ensure that each person at the meeting is clear about what the DQI is, what it does, and what they are required to do. A simple and annotated PowerPoint presentation has been developed for this purpose.

More information about the role of the DQI Facilitators and the method to use the DQI on building projects is outlined in the Guidance for DQI Facilitators. To download this Guidance please click below:

Facilitators guidance (V2.1)

If you are registered as a DQI Facilitator and would like to download various resources to assist in facilitating a DQI usage please click here to enter the resources section (note this section is password protected, if you do not have a password please contact CIC)

Training
If you would like to have a DQI Facilitator appointed to assist with the implementation of the DQI on one of your projects, please contact dqi@cic.org.uk. You may also train as a DQI Facilitator in your own right; we are holding two further Facilitator workshops during the period of the Trailblazing scheme, these are:

- **28 November 2002** from 2 – 4.30pm at the Royal Incorporation of Architects in Scotland (RIAS), 15 Rutland Square, **Edinburgh** EH1 2BH.

- **11 December 2002**, from 1 – 3pm at the Building Centre, 26 Store Street, **London** WC1E 7BT.

If you would like to attend either of these, please forward your contact details, and workshop you are interested in attending please contact dqi@cic.org.uk, or by phone, 020 7637 8692.
Media

Up and walking 2992 kb
Building - 25 October 2002

Egan's follow-up report puts architecture centre stage 736kb
the architects' journal - 12 September 2002

Letters 883kb
the architects' journal - 15/22 August 2002

Fuzzy logic 978kb
the architects' journal - 1/8 August 2002

Wilson welcomes launch of the design quality indicator 2116kb
Construction Monitor - July 2002

Angled delight 978kb
Building Design - 26 July 2002

How to account for taste 2116kb
Building - 12 July 2002

Delight detector starts trial run 978kb
Building Design - 12 July 2002

Design quality indicator testers sought 736kb
New Civil Engineer - 11 July 2002

CIC reveals new design 'language' 736kb
the architects' journal - 11 July 2002

BEETTER BUILDINGS FOR A BETTER QUALITY OF LIFE
Construction Minister, Brian Wilson, today welcomed the launch of a new tool designed to continually benchmark the quality of buildings against industry standards.

- 8 July 2002

CIC launches design indicators
Building - 21 June 2002

Delight detector debuts
Building Design - 12 April 2002

Delight detector debuts
Building Design - 23 February 2001

For more information contact dqi@cic.org.uk

Home
Development of the DQI

History

The development of the DQI began in September 1999, when CIC submitted a bid for joint funding through the (then) Department of the Environment, Transport & the Regions Partners in Innovation (PiI) Scheme. Work formally started on the development of the DQI in May 2000, which led to the development of the DQI tool. In May 2002 further sponsorship was secured from Department of Trade & Industry (again through the PiI Scheme), Commission for Architecture and the Built Environment, and Rethinking Construction to complete the refinements needed to the DQI tool, and to develop an interactive web-based DQI for the construction industry.

The Construction Industry Council has led the development of the DQI, with SPRU at the University of Sussex as the principal research contractors, assisted by Colander. The development of the DQI has also been hugely assisted by a multi-disciplinary steering group organised and managed by CIC, which, since the beginning of the project in May 2000, has included:

Steering Group members

Michael Dickson  Steering Group Chairman, Buro Happold
Simon Allford  Allford Hall Monaghan Morris (until July 01)
Amal-Lee Amin  SPRU (until February 01)
Caroline Cole  Colander
Deryk Eke  Office of Government Commerce (from May 02)
Stephanie Fischer  Burrell Foley Fischer (until July 01)
David Gann  SPRU
Charles Gjertsen  Rethinking Construction (until July 01)
William Hawkins  Research Associate, CIC (from September 01)
**Development of the DQI**

Stephen King **CABE** (from May 02)  
Robin Nicholson **Edward Cullinan Architects**  
Malcolm Potter **Davis Langdon Consultancy**  
Chris Nicholls **Department for Trade & Industry** (until July 01)  
Bob Packham **Department for Trade & Industry** (from May 02)  
Brian Parke **Major Contractors Group, Skanska** (from May 02)  
Sunand Prasad **CABE Commissioner, Penoyre & Prasad**  
Jane Priestman **Design Consultant** (until July 01)  
Peter Runacres **Rethinking Construction** (from July 01)  
Jon Rouse **CABE** (from May 02)  
Aamon Salter **SPRU** (until July 01)  
Nicholas Spencer **DQI Manager, CIC** (until August 02)  
Andrew Stroud **Former Secretary, British Construction Industry Awards** (until July 01)  
Mike Tester **Tuffin Ferraby & Taylor** (until July 01)  
David Walker **Hoare Lea & Partners**  
Elanor Warwick **Peabody Trust** (until July 01)  
Graham Watts **Chief Executive, CIC**  
Jennifer Whyte **SPRU**  

Other than those listed above, there are many other organisations, Government departments, and companies supporting the principles and the development of the DQI, including:

**DQI supporters**

**Organisations**
- Association of Consultant Architects  
- Association of Consulting Engineers  
- Association for Project Management  
- Association of Planning Supervisors  
- Architecture and Surveying Institute  
- British Institute of Architectural Technologists  
- British Institute of Facilities Management  
- British Property Federation  
- Chartered Institute of Building Services Engineers  
- Chartered Institute of Building  
- CIC member organisations  
- Confederation of Construction Clients  
- Construction Industry Research and Information Association  
- Construction Products Association  
- Consultant Quantity Surveyors Association  
- Countryside Agency  
- Design Council  
- District Surveyors Association  
- English Heritage

Development of the DQI

- English Partnerships
- Environment Agency
- Institution of Structural Engineers
- Landscape Institute
- Local Authorities (various)
- London Authorities Construction Benchmarking Club
- Major Contractors Group
- National Construction Benchmarking Forum
- Regional Development Agencies (various)
- Royal Institute of British Architects
- Royal Institution of Chartered Surveyors
- Royal Town Planning Institute
- Society of Chief Architects in Local Authorities

Government Departments
- Cabinet Office
- Department for Environment, Food & Rural Affairs
- Department for Culture, Media and Sports
- Department for Education & Skills
- Department for Work & Pensions
- Department of Health
- Department of Trade & Industry
- Department of Transport, Local Government and the Regions
- Foreign & Commonwealth Office
- HM Treasury
- Home Office Lord Chancellor's Department
- Ministry of Defence
- NHS Estates
- Welsh Assembly

Companies
- Many public & private clients, design firms, contractors, and others (A full list of supporters will be placed on the site shortly).

Compatibility with other Benchmarking tools

The DQI has been developed to be compatible with other indicators and benchmarking systems that are under development or already in use in the construction industry. The DQI assesses the quality of the product - the completed building, while there are other tools that assess the process of producing the building, and other tools that combine elements of assessment for both the product and the process - such as some emerging sustainability and environmental tools. A useful source for more information
about the different benchmarking systems in construction is KPI Zone, www.kpizone.com
Using the Design Quality Indicator?

When can I use the DQI?
Feedback from the DQI in use

When can I use the DQI?

The DQI is currently being developed as a fully interactive web-based system, which will be available for public use from May 2003. In the meantime, CIC has launched the Trailblazing Scheme which offers the first opportunity for 100 organisations in the construction industry to use the DQI. To register your interest or enquire about using the DQI, please contact:

Construction Industry Council
26 Store Street
London WC1E 7BT

T 020 7637 8692

E dqi@cic.org.uk

Feedback from the DQI in use

The DQI has already been successfully piloted during the development process on a number of different types of project at different stages of completion. Feedback has included.

"It touched on things we clearly hadn’t thought of"
Client

"It’s a very important tool to use for a public sector client to get a balanced brief"
Financier

"I wish we’d used this earlier – the designer didn’t even seem to think about us"
Receptionist

"I was pleasantly surprised to be asked if the flat was ‘delightful’ and ‘convivial’"
Tenant

"I’d like to use this throughout the project life-cycle"

Project manager

Below are photographs of the projects that DQI has been used on:

Brindley Place, Birmingham

Darlaston Pool, Walsall
Using the Design Quality Indicator?

Freeman Centre, University of Sussex

Dalston Lane, London

Brighton Library, Brighton
Using the Design Quality Indicator?

Nottingham Skating Arena, Nottingham

Ladybridge Primary School, Stockport

Jesse Boot Wildcats Arena, Barrow

Home
Contact us

If you would like to discuss any of the information listed on this site, or are keen to ascertain how you can become more involved with the DQI tool, please contact CIC.

Construction Industry Council
26, Store Street
London
WC1E 7BT

Tel: 0207 637 8692
Fax: 0207 580 6140
e-mail: dqi@cic.org.uk
DESIGN QUALITY INDICATOR TRAILBLAZING SCHEME  
(the "Scheme")

Licence for the Design Quality Indicator

This Licence is made the __________ day of __________ 2002

BETWEEN:

1. The Construction Industry Council of 26 Store Street, London WC1E 7BT (the "CIC"); and

2. …………………………………………………………………………………….. of ………………………………………………………………….. ("the Registered Body")

IT IS AGREED AS FOLLOWS:

1. GRANT OF LICENCE

1.1 In consideration of the payment of £300 (+VAT) the CIC hereby grants a non transferable, non sub-licensable, non exclusive, worldwide licence to the Registered Body to use the design quality indicator questionnaire (the "DQI") in accordance with the terms of this Licence. The Licence shall run from the date on which the licence fee of £300 (+VAT) has been cleared by the CIC's bank (provided that the Licence fee was accompanies by a signed copy of this Licence) until 30 June 2003 ("the Licence Period") unless it has been terminated before that date under the terms of clause 5. The CIC shall deliver the DQI to the Registered Body as soon as practicable after the start of the Licence.

1.2 In recognition of the use to which the DQI results will be put, and the need for consistency in its implementation and operation in the built environment, the Registered Body agrees to use the DQI only for the purpose and in the manner specified by this Licence.

2. OWNERSHIP

2.1 The parties agree that the copyright (and all other intellectual property rights) in the DQI (and any variations thereof) shall belong to the CIC.
3. DQI SPECIFICATION AND THE SCHEME

3.1 The Registered Body acknowledges that the DQI provided under this Licence is a pilot version of the design quality indicator questionnaire, that the criteria, procedures and guidelines are not yet fully developed by the CIC and that consequential changes and developments may be required by the CIC during the Licence Period. The Registered Body shall implement any changes to the DQI as soon as practicable after notification by the CIC.

3.2 The Registered Body shall not amend or alter the DQI (including, without limitation, the content and/or method of operation of the DQI) or reproduce or distribute it without the prior written permission of the CIC, except as reasonably necessary for the purposes set out in this Licence. If permission is granted by the CIC to develop, expand, amend or alter the DQI, the parties agree that the CIC will own the copyright (and all other intellectual property rights) in the changed version of the DQI. By granting any such permission, which shall be in the CIC's sole discretion, the CIC shall not be deemed to have waived any of its intellectual property rights in the DQI (in either its original or changed form), all of which are hereby reserved by the CIC.

3.3 The Registered Body now assigns to the CIC, as beneficial owner with full title guarantee free of all encumbrances, any and all present and future copyright (and all other intellectual property rights) in changes made to the DQI to hold the same to the CIC absolutely. This assignment is for the remainder of the term of the copyright (and all other intellectual property rights) and all renewals and extensions and includes all accrued rights of action in relation to any past or existing infringements of them.

3.4 The Registered Body shall be entitled to use the changes that it have been made to the DQI under the terms of the Licence granted pursuant to clause 1.1.

3.5 The CIC will produce and publish headline and collective results from the Data and the results and information provided by all the other registered bodies. The CIC shall not publicise or disseminate the individual findings from use of the DQI by the Registered Body without the written permission of the Registered Body.

4. LICENCE CONDITIONS

4.1 The Registered Body shall:

4.1.1 maintain documented, formal procedures for the operation of DQI;
4.1.2 use the DQI for no more than a maximum of 6 building projects ("Projects") during the Licence Period, with a maximum of 15 users of the DQI for each Project. The Registered Body shall be entitled to use the DQI on any of its Projects at its discretion, which can be at any stage of development (e.g. briefing, design, construction, in use) save that use of the DQI at different stages of the same Project shall count as a separate Project for the purposes of the maximum of 6 Projects;

4.1.3 provide the CIC with information about each Project and the results generated by the DQI (the "Data"), in the format specified by the CIC, within two weeks of completing the DQI for a Project;

4.1.4 grant the CIC a non exclusive, transferable, sub-licensable, worldwide licence to use the Data for the purpose of generating a report for the Registered Body, generating and publishing headline statistical information based on the Data and the information and results from all the other registered bodies and for the future development and exploitation of the DQI and any associated headline statistical information.

4.2 The Registered Body shall take all necessary steps to enable the CIC to operate the Scheme and agrees to maintain records to meet the criteria and procedures set out in this Licence and/or as notified to the Registered Body in writing by the CIC. The CIC shall be entitled to refer to the Registered Body in any advertising associated with the CIC and/or the DQI.

5. TERMINATION

5.1 This Licence may be terminated by the CIC on giving 1 month's notice to the Registered Body. The Licence shall in any event terminate automatically on 30 June 2003. On termination, for whatever reason, the Registered Body shall cease to participate in the Scheme from that date onwards and shall discontinue use of the DQI (and all copies thereof).

5.2 The Scheme will be subject to constant monitoring and review by the CIC. The CIC may contact the Registered Body during the Licence Period, and the Registered Body agrees to provide such information as may be requested by the CIC in relation to its use of the DQI.

5.3 It is intended, but without commitment, that towards or at conclusion of the Licence Period, the CIC will re-launch the DQI and may or may not issue a further licence to the Registered Body.
6. **NO LIABILITY**

6.1 The Registered Body accepts that the DQI is still under development and is being provided to the Registered Body by the CIC solely for development and testing purposes and therefore the Registered Body participates in this Scheme at its own risk. The Registered Body acknowledges that any reports generated by the CIC for the Registered Body and any headline statistical information published by the CIC may contain errors and therefore the Registered Body shall not rely upon such information and shall use it at its own risk. Accordingly, all warranties, representations, guarantees, conditions and terms whether express or implied by statute, common law, trade usage or otherwise and whether written or oral are hereby expressly excluded to the fullest extent possible by law.

6.2 The Registered Body agrees that neither the CIC nor any other person involved in creating, developing, testing or using the DQI shall be liable for any direct, indirect, consequential or incidental loss or damage arising from or relating to the DQI, the Data, the reports generated by the CIC or under this Licence.

7. **GENERAL**

7.1 This Licence shall be construed in accordance with English law and the parties irrevocably submit to the exclusive jurisdiction of the English courts to settle any disputes which may arise in connection with this Licence.

7.2 If any part of any provision of this Licence shall be invalid or unenforceable, then the remainder of such provision and all other provisions of this Licence shall remain valid and enforceable.
I accept the terms of this Licence

Signed by ......................................

Authorised Signatory for and on

behalf of ......................................

Date: .............................................

Signed by: .................................

Authorised Officer

On behalf of the

Construction Industry Council

Date: .............................................

Please return this Licence to:

Construction Industry Council
26 Store Street
London
WC1E 7BT

Please enclose a cheque for £300 Licence fee (+VAT) £352.50, made payable to the Construction Industry Council.
Using the DQI

Version 2.1

30 September 2002

Figure 1: Trailblazing Process Map

Web: www.DQI.org.uk  e-mail: dqi@cic.org.uk
# Contents

1.0 Introduction 3

1.1 Purpose of the DQI 3
1.2 The Trailblazing Scheme 4

2.0 Selection of Projects 4

3.0 Role of DQI Facilitators 5

4.0 Running a DQI Pilot 6

4.1 Using the Questionnaire 7
4.2 The Weightings 7
4.3 Levels of detail and complexity 8

5.0 Preparation of Results 9

5.1 Feedback from using the DQI 9

6.0 FAQ’s 10

APPENDIX A 11
Questionnaire Feedback Form (3 Copies)
1.0 Introduction

The Design Quality Indicator (DQI) is a new and unique, generic method for assessing the design quality of buildings. The DQI is developed to a robust level, and by summer 2003 will be developed as an interactive web-based DQI. The Trailblazing Scheme (see 1.2) is part of the DQI development.

The DQI is a short, simple and non-technical Questionnaire that addresses the ‘Functionality’, ‘Build Quality’ and ‘Impact’ of a building.

**Functionality** is concerned with the arrangement, quality and inter-relationship of space, and the way in which the building is designed to be useful.

**Build Quality** relates to the engineering performance of a building, which includes structural stability and the integration and robustness of the systems, finishes and fittings.

**Impact** refers to the building’s ability to create a sense of place, and to have a positive effect on the local community and environment. It also encompasses the wider effect the design may have on the arts of building and architecture.

1.1 Purpose of DQI

- **What is it for?**

  It has been developed to help everyone involved as stakeholders to the built environment to gain more value from the design of buildings, and to assist in improving the quality of buildings in the built environment.

- **Who is it for?**

  It can be used by all stakeholders involved in the production and use of buildings, including public and private clients, developers, financiers, design firms, contractors, building managers and users.

- **When can it be used?**

  The DQI can be used at any stage in the development process, from setting the brief, evaluating design proposals, during construction, and when a building is complete, to set and check that your intentions for the building are being met.

- **What are the benefits?**

  The benefits the DQI offers are:
  - Assessing the quality of design of your projects – proposed, under construction or completed;
  - informing client and user choices at the briefing stage of projects to ensure clarity of understanding and a shared vision;
  - developing a better understanding about the value of good design;
- enabling a structural framework to clearly communicate and discuss your requirements for the design quality of buildings;
- comparing and integrating your views with different participants in the design, procurement and building processes;
- comparing and contrasting your views of a building against the results from other users of the DQI; and
- providing a measured focus on the product in the context of many other process-based key performance indicators

1.2 The Trailblazing Scheme

CIC is running the DQI Trailblazing Scheme to enable 100 organisations in the construction industry to use the DQI. The Scheme will run from July 2002 – June 2003, when the DQI will be launched as a fully interactive web-based tool. The aim is that the following organisations will be involved in the Scheme:

- 40 – 60 design firms (architects, structural engineers, others)
- 10 – 20 contractors
- 10 – 20 public client organisations
- 10 – 20 private client organisations
- 5 – 10 other users (schools, universities, and so on)

Each Trailblazer organisation will have completed the Licence agreement and returned it to CIC with a cheque for £300.

CIC will issue a DQI Pack to organisations once they are confirmed as being of Trailblazer status, which will comprise:

- Several copies of the DQI Questionnaire
- A password to access the secure Resources section of the DQI website where various sources can be downloaded, including an annotated copy of the DQI PowerPoint presentation
- A copy of the signed Licence agreement
- Other DQI and Rethinking Construction publicity material

2.0 Selection of Projects

The full DQI tool is intended to be used on any building projects at inception, during briefing, design or construction, and when a building is complete. For the Trailblazing Scheme, each Trailblazer is entitled to use the DQI on a maximum of 6 building projects, with an upper limit of 15 users for each project.

Please note that the use of the DQI at different stages of the same project shall count as separate projects for the purposes of the maximum of 6 projects.

Depending on the stage of the selected projects, the use of the DQI and the participants involved in using it will vary. Thus the DQI could be used:
- At inception/briefing; for the development of the brief, setting benchmarks, assisting in understanding of the trade-offs and choices that need to be made, and as a training tool for clients and advisors. The DQI will allow the design of the project and the requirements and values to be considered and discussed across the project team. CIC suggest that the DQI is used to give an importance rating to each of the different statements raised in it.

- At design stage; to drive improvements in the focus, quality and value of the design, and to assist in evaluating different scheme proposals. The value of using the DQI is in enabling detailed discussion through the project team and prospective user groups about each of the statement posed in the questionnaire.

- During construction; to assist in the delivery of the project, and help with integration of the whole teams understanding about the building and its aims.

- On a completed building; to receive feedback from the project team and the building users, and to help inform improvements for the next project and promote the take up of more comprehensive occupancy evaluation tools.

These suggestions for use of the DQI are guidelines only, and Trailblazing organisations are free to choose the projects that they wish to use at the stage of development they choose with the participants who they would like to use the DQI.

### 3.0 Role of DQI Facilitators

To assist Trailblazer organisations in using the DQI, CIC is setting up a Register of DQI Facilitators. There will be two types of DQI Facilitator:

- Independent individuals who wish to assist Trailblazer organisations to use the DQI
- Nominated individuals within Trailblazer organisations who wish to facilitate the use of the DQI on their own organisations building projects

Each DQI Facilitator will attend a Workshop to find out more information about the DQI. CIC will host a Register of Facilitators as a result of these Workshops, and Trailblazer organisations will contact CIC for a Facilitator to be mobilised to run the DQI on one of their projects.
4.0 Running a DQI Pilot

- **Before you start**

Before you start it is essential that the organisation using the DQI has signed the Licence to ensure that they are a Trailblazer organisation.

- **What is the process?**

The process can be undertaken in a 1½ to 2 hour meeting, which would run roughly as follows:

- Attendees being given a 20 minute presentation on the DQI so that everyone is clear about what the DQI and what it does, and what they are required to do;
- The DQI Questionnaire should be handed out to attendees, for each respondent to fill in. This process takes about 20-30 minutes, and runs best when it is without discussion or distraction;
- The facilitator should spur a discussion among attendees focusing on his/her knowledge of the building, and specific questions they wish to ask about the project, and picking up on any comments that people might have made while completing the questionnaire. The discussion should cover issues such as how easy the Questionnaire was to complete, whether the process was useful, how attendees assessed the relative attributes of the building, what they view the strengths and weaknesses of their building to be, and so on. The aim is to elicit and record the various views and perspectives that different participants have on the building, which will complement the DQI assessment.

It may be that the Trailblazer organisation would wish to emphasise certain parts of this process. For example, if the DQI was being used at design stage to evaluate four different design proposals, other information about each of these projects might be used to supplement the answers and discussion given completing the DQI.

- **Who should take part?**

This will vary depending on the stage of the project the DQI is being used on, and the specific requirements of the Trailblazing organisation. Generally, the meeting should consist of roughly 10 - 15 people involved with the project and it is useful to engage a range of interests and perspectives on the building.

Suggestions for delegates at a pilot include:
- client representatives
- representatives from the local authorities or procurement department
- facilities managers
- members of the design team
- contractors
- others involved in the construction process/ the completed building
- members of staff at the building
- casual users
- **How to introduce the tool**

Each Facilitator will be responsible for ensuring that each person at the meeting is clear about what the DQI and what it does, and what they are required to do. A simple and annotated PowerPoint presentation has been developed for this purpose which will be made available to Facilitators on the DQI website (to do this you will need as password and username, all registered DQI Facilitators and Trailblazers will be provided with this – for further advice please contact CIC at dqi@cic.org.uk)

**4.1 Using the DQI Questionnaire**

The DQI Questionnaire is the main data capture tool, and each respondent is asked to evaluate the design quality of their building – or proposed building – by giving opinion to the headline indicators of ‘Functionality’, ‘Build Quality’ and ‘Impact’. The questionnaire is structured with statements that address specific attributes of the building under these three main headings, as follows:

**FUNCTIONALITY:**
- Use
- Access
- Space

**BUILD QUALITY:**
- Performance
- Engineering Systems
- Construction

**IMPACT:**
- Form & Materials
- Internal Environment
- Urban & Social Integration
- Character & Innovation

The Questionnaire consists of just 90 statements that each respondent gives opinion to. This statements posed are general, and should be answered according to each respondents personal opinion about the building, or proposed building.

**4.2 The Weightings**

At the end of each of the sections of ‘Functionality’, ‘Build Quality’ and 'Impact' respondents are asked to weight the importance to them of the different aspects of design quality. Respondents should think carefully about the priorities that they have for the building, and remember that there is no single measure of good building design.

<table>
<thead>
<tr>
<th>IMPACT SUMMARY</th>
<th>Respondents score</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHARACTER &amp; INNOVATION</td>
<td>eg. 5 6</td>
</tr>
<tr>
<td>FORM &amp; MATERIALS</td>
<td>eg. 5 3</td>
</tr>
<tr>
<td>INTERNAL ENVIRONMENT</td>
<td>eg. 5 8</td>
</tr>
<tr>
<td>URBAN &amp; SOCIAL INTEGRATION</td>
<td>eg. 5 3</td>
</tr>
<tr>
<td>total points 20</td>
<td>total points 20</td>
</tr>
</tbody>
</table>

Using the illustration above for a school building, one might expect the ‘Internal Environment’ to be more important in the mind of the respondent than the ‘Character & Innovation’ of the building, which could be a close second place priority. ‘Form & Materials’ and ‘Urban & Social Integration’
could be perceived as both being not as important, and hence given a lower score. The respondent has a total of 20 points to allocate to these criteria, and might therefore score them:

- Character & Innovation: 6
- Form & Materials: 3
- Internal Environment: 8
- Urban & Social Integration: 3

In each of the Sections respondents answer, they are also asked to identify the three most important statements for their building to achieve.

**Impact**

For sections 1 to L, please additionally circle the 3 statements within each section that you feel are the most important for your building.

1. **CHARACTER & INNOVATION**
   - 01. The building provides a sense of security
   - 02. The building lifts the spirits
   - 03. Visitors like coming here
   - 04. The building reinforces the image of the occupier’s organisation
   - 05. The building is widely acclaimed for its quality
   - 06. The building has character
   - 07. The building makes you think
   - 08. There is clear vision behind the building
   - 09. The building’s design and construction contributes to development of new knowledge

In the example illustrated above, questions 02, 05, and 09 have been circled to show that the respondent thinks that these are the most important statements for the building to achieve.

The statements are phrased to apply to a completed building. When the Questionnaire is used at the inception, design or construction stages of a project, the respondent should rephrase the statement to suit their requirements. For example, the statement ‘the building provides good access for all’ should be read at the design stage of a project as ‘the building will provide good access for all’

Depending on the type of building, its stage of development, and the level of knowledge of the respondent, there will be some statements in the Questionnaire that will not be applicable.
4.3 Levels of detail & complexity

The DQI tool has been designed to be useable by anyone involved in a project. However, there are clearly aspects of design and building which require expert assessment and knowledge – the more so earlier in the process.

The DQI is akin to a computer game with several levels. CIC has consciously emphasised the entry level. During the Trailblazing Scheme, it is intended that the organisations involved will contribute to the development of the more expert levels; for example, by deploying and perhaps developing more detailed methods of assessment for certain elements of the DQI.

5.0 Preparation and feedback of Results

At the end of each pilot the Facilitator is required to collate the completed DQI Questionnaires and return them by post to CIC. Once at CIC, we will input the data into the DQI system, and prepare a set of responses which will be sent, in confidence, to the Trailblazer organisation.

The data from each Trailblazer will also be used to develop headline benchmarking information which will be made publicly available. The results from using the DQI and the weightings algorithm that is used to generate them, will be continually refined and developed throughout the Trailblazing Scheme.

5.1 Feedback from using the DQI

To aid with development of the DQI over the trailblazing period we are keen to gain feedback about experiences which users of the DQI have with tool.

To help with this we have produced a feedback form (attached to the end of this document), which should be used to direct any discussion, and completed to aid us develop further generations of the tool.

If you could complete this form after each use of the DQI and return to CIC along with the DQI questionnaires (please continue on further sheets if necessary).
6.0 FAQs

During the DQI pilot there are likely to be a number of FAQs that respondents will ask. Some are covered in Section 1.1, but others may include:

Q *How do we use this if the building isn’t completed?*

A Currently the tense of the statements in the DQI Questionnaire are written for assessing an existing building. Guidance can be found in Section 2.0 for using the DQI at the inception and design stage.

[Note: We are holding a general review of the DQI Questionnaire on the 11 December 2002 for all Trailblazers and users of the DQI (details and invitations will be distributed nearer the time). We would appreciate feedback from experiences of using the DQI Questionnaire - Section 5.1 contains guideline for providing feedback.]

Q *What do we do with questions we can’t answer?*

A Not every respondent who completes the DQI will have a view on all 90 statements, and some may not be applicable to the particular building or job stage. In this case respondents should tick the ‘Not Applicable’ response.

Q *What do you do with the results?*

A Once the results are sent to CIC we will enter them into the DQI weightings algorithm, which has been developed by SPRU at the University of Sussex. The results from this weightings algorithm will be returned to the Trailblazer. The data gained will also, in an anonymous form, help in the production of benchmarking results.

Q *How long will it take to fill in?*

A In trials it took between 20 and 40 minutes. It will generally take longer at the inception and design stages than for a completed building (see Section 4.0)

Q *Should I answer according to my perceptions of the building?*

A Yes, the DQI works by assessing a number of respondents perceptions, and often the differences between different responses are key to the success of the DQI in the design process.

Q *I need a facilitator, where can I get one?*

A If you contact CIC, at dqi@cic.org.uk, or on 020 7637 8692, they will be able to provide you with names and contact details of trained DQI Facilitators in your area (see Section 3.0)
Questionnaire Feedback Form

Name/Ref Number of Trailblazing Organisation:

Name of Project:

Contact Name:

Tel:

e-mail:

Questions for Focusing Feedback:

1. How did you get on?

2. Were there any questions you could not answer?

3. Which questions did you think were most important?

4. Which questions did you think were least important?

5. Did you learn anything from filling in the questionnaire?

6. What would help you to understand the questionnaire better?

7. How did you understand the framework?

8. How did you assess the relative importance of different categories for your building?

9. What would help you to understand design quality?

10. What would make the tool more useful?

Please send this form together with completed questionnaires to CIC, 26 Store Street, London WC1E 7BT