Risk assessment decision making tool for building control bodies

Final risk assessment guidance
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Greenstreet Berman

January 2012
Department for Communities and Local Government
This research, commissioned by the previous government, is being published in the interests of transparency. The views and analysis expressed in this report are those of the authors and are not intended to reflect the current or future views or policies of the current government. The Department for Communities and Local Government is publishing this report alongside the 2012 consultation on changes to the Building Regulations as some of the findings in it are discussed in that consultation and used in the impact assessments that accompany it.
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1 INTRODUCTION

1.1 Scope of this guidance

This document sets out a risk assessment approach that can be used by both Local Authority and Approved Inspector Building Control Bodies (BCBs) for when developing service schedules for the inspection of building work. It covers both common projects such as loft conversions and more complex and larger projects such as hospitals. Section 2 provides guidance on the risk assessment of common projects and section 3 provides guidance for more complex projects.

For the purposes of this guidance only “building work” does not cover (unless it forms part of a larger application for work):

(a) Minor structural work such as building or demolishing a non-load bearing wall;

(b) Replacement window installations in dwellings; or

(c) The installation of fixed building services such as heating, hot water, air-conditioning, ventilation, plumbing or electrical installations.

This document builds on the document “Building control performance standards”\(^1\) published in 2006 by the Department for Communities and Local Government (DCLG) on behalf of the Building Control Performance Standards Advisory Group. In particular, it provides guidance on achieving site inspection regime of “appropriate intensity and frequency” (section 5).

1.2 Definition of risk

Risk is defined, in the context of identifying construction stages to be notified to Building Control Bodies, as the likelihood of non-compliance with building regulations and the potential extent of harm to current and future users of building and the environment associated with non-compliance. The risk to the environment includes the aggregate impact of the use of buildings on climate change.

1.3 Status of this guidance

This guidance is advisory.

It is applicable to all Building Control Bodies in England, both Local Authorities and Approved Inspectors.

Building Control Bodies may choose to apply this guidance or use an alternative risk assessment that is equally suitable and sufficient, as outlined in 1.6.1. However, we recommend that any alternative risk assessment method should achieve the aims and principles set out below.

1.4 Aims of risk assessment

The risk assessment aims to:

- Identify for inclusion in service schedules those stages where Building Control Bodies wish to be notified by the person carrying out the work to, where those stages:
  - Are points in the construction programme where the risk posed by non-compliance warrants inspection; and
  - Are points in the construction programme where the Building Control Officer (BCO) either Local authority or Approved Inspector will have the opportunity to view work prior to being covered over and / or is able to pre-empt non-compliance through reviewing work in progress.

- Advise on the number of visits that might reasonably be anticipated for inspecting some building work given the risk posed by non-compliance. (NB this links to changes made to the Local Authority Charges Regulations in 2010 which made the link between building control input and charges more explicit.)

The person carrying out the work is typically a builder (or a building company) but may on occasion be an architect or the owner of the building. The person carrying out the work is also responsible for notifying work to the Building Control Body and for compliance with building regulations.

1.5 Benefits of risk assessment

The application of risk assessment to service schedules offers the following benefits:

- Enables Building Control Bodies to focus resources on the higher risk building projects;
- Enables Building Control Bodies to focus, in particular, on builders with a history of non-compliance; and
- Enables Building Control Bodies to achieve a proportionate, transparent and consistent approach to inspection of building work.

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2 Each visit may entail inspecting a number of elements.

3 Insert link to Charges Regs
By completing a risk assessment in a transparent and consistent way, this will enable effective dialogue with persons carrying out the work, thereby facilitating effective working with these persons and enabling queries regarding inspection regimes to be addressed.

In addition:

- By recognising build risk factors such as the involvement of site engineers, the risk assessment should encourage designers and builders to take greater responsibility for delivering compliance;
- By linking the number of Building Control Officer visits (and thereby the building control charge) to risk assessment this will indicate to building owners the factors that influence the risk of non-compliance;
- The risk assessment provides flexibility in:
  - The definition of notification stages, such that new or specific stages may be added as necessary, rather than being limited to those currently defined in law; and
  - The selection of stages to be notified, revising their priority in accordance with building performance and changes in building regulations.

Thus, risk assessment is expected to support an effective approach to inspection, help improve compliance and achieve best value in use of Building Control Officer resources, whilst minimising demands on the person carrying out the work.

1.6 Key risk assessment principles

Some key principles that should apply to the conduct of risk assessment are outlined below.

1.6.1 Suitable and sufficient risk assessment

For a risk assessment to be suitable and sufficient it should:

- Identify the stages within a construction programme where it would be reasonable to require one or more site visits, given the risk, to prevent or detect non-compliance;
- Indicate the approximate number of visits to a site that would be proportionate to the risk and would reasonably be needed to survey a project as a whole and per construction stage;

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4 As part of the 2013 Building Regulations review, DCLG intend to consult on whether to remove the statutory notification stages, with the exception of commencement and completion, and replace them with a service plan.
- Indicate the elements that will reasonably need to be inspected at each stage, especially any that need to be highlighted to the person carrying out the work to ensure they are available to view at the time of inspection; and
- The risk assessment and resulting service schedule should award proportionate weight to potential non-compliances that may cause harm to the environment as well as current and future users of the building and other persons, such as neighbours.

In addition:
- The time required to complete the risk assessment should be proportionate to the magnitude of the building work and potential risk, such as a few minutes for common projects and tens of minutes to a few hours for larger and more complex projects.
- Completion of the risk assessment should be within the competence of any qualified Building Control Officer, notwithstanding the need to seek advice and peer review from other Building Control Officers, such as for assessing more complex or infrequent projects;
- The risk assessment should be of sufficient detail and be recorded to enable subsequent review of decisions on what to inspect in the event that these decisions are subject to review, audit, performance measurement or challenge; and
- It should be possible to complete the risk assessment without demanding the use of data on the frequency of non-compliance, although such data if available may be applied where appropriate and useful.

The risk assessment should include assessment of the following factors, wherever information is available or could reasonably be acquired to do so:
- The nature of the building work, such as constructing foundations versus roofs;
- The size and complexity of the building work;
- The extent to which any initial plans demonstrate compliance with building regulations;
- The level of builder experience, qualification, site management and professional support provided to builders during the construction process;
- Geological, ground contamination, ground water and other ground related hazards (where applicable to the construction activity); and
- Alternative means of achieving compliance.
Where the Building Control Body has access to data on non-compliance this may
inform the risk assessment, such as assessing the frequency with which non-
compliance has occurred for specific elements and stages of work. When using
such data, due account needs to be given to whether non-compliance data
represents all forms of non-compliance. That is, historical non-compliance data
may be limited to a minority of faults that are reported for a specific reason, such
as for the sake of insurance claims, rather than covering all forms of non-
compliance with building regulations. Risk assessments should give proportionate
consideration to all forms of non-compliance. Some forms of non-compliance may
only be detected during construction, for example they are physically covered up
during construction and do no reveal themselves later on in the form of visible
defects or do not lead building owners to make complaints or insurance claims.
Also due consideration needs to be given to whether historical non-compliance
data relates to current construction methods and materials. The risk assessment
should give due weight to the potential for non-compliance with new construction
methods and materials. This is likely to require qualitative review of information
about methods and materials and identification of potential faults.

1.6.2 Proportionate, transparent and consistent inspection

The basis for deciding what to inspect and the number of site visits should be 1)
proportionate to the risk posed by non-compliance, 2) transparent and 3)
consistent within each Building Control Body and, as far as possible, between
Building Control Bodies.

- **Proportionality** requires that the number of visits and object of inspection
  reflects the risk posed by non-compliance, taking account of how likely it is
  that non-compliance may occur in the particular building project and the
  possible consequence of non-compliance, including potential harm to
  people and the environment.

- **Transparency** requires that:
  - The decision process for specifying the service schedule is explicit,
    stated and comprehensible, such as having a statement of the risk
    assessment method;
  - The decision process can be understood by builders, other
    professionals, and building owners; and
  - The results of a risk assessment are recorded and available for
    scrutiny.

- **Consistency** requires that a reasonably comparable approach is adopted by
  all Building Control Bodies and between individual Building Control Officers,
  specifically one which would indicate a similar number of visits and a similar
  range of inspection elements for similar building projects.
1.6.3 Mandatory stage notifications

Should DCLG proceed with the proposal to remove all mandatory notification with the exception of commencement and completion all intervening stage notifications would become subject to risk assessment by the Building Control Officer. The Building Control Body should advise the builder of the full notification schedule, including any non-statutory notifications, within a service schedule.

It is not mandatory that Building Control Bodies inspect at any of these stages, although it is considered good practice to inspect on completion. DCLG are also consulting on whether to make completion certificates mandatory in all cases where the Local Authority considers that the work complies. It is considered that it would be difficult to do so without carrying out at least one inspection of the work, probably at or near completion.

1.6.4 Status of stages within the service schedule

The notification stages included in service schedules by Building Control Officers must be notified to the Building Control Body by the person carrying out the work (whether this is the builder, architect or owner of the building). If DCLG proceeds with the introduction of a statutory service plan, once included in a service schedule, these stages effectively gain a statutory status and are not optional. Failure to notify stages in the service schedule would constitute a breach of the building regulations.

It is good practice only to include stages for notification where it can reasonably be expected, on the basis of risk assessment, that there is a need for inspection and that the inspection will be achieved. It should be noted that:

- Any service schedule is subject to revision by the Building Control Officer upon commencement of site visits, in particular the number of visits and the subject of inspection is open to revision at any time. Any such revision should be based on a revised risk assessment following more information and/or observation of the standard of building work by the Building Control Officer;
- The service schedule does not preclude re-visiting and re-inspecting work, where additional visits have not been included in the service schedule. Re-visits may be required for many reasons including verifying compliance with earlier instructions to persons carrying out the work or due to work not being open to view at the time of an earlier inspection;
- Building Control Officers are not required to make site visits for all notified stages; and
- The provision of a service schedule does not preclude the possibility of unannounced visits in-between notifiable stages.
1.6.5 Detailed plans

In the event that an application is not accompanied by detailed plans (ie Full Plans submission in the case of Local Authorities or its equivalent for Approved Inspectors), this should be taken into account in the risk assessment, specifically by rating the Design as High Risk. The exception to this is in the case of minor work - see section 1.8.5 below.

In the case of larger projects where design and build might be completed in phases, each phase may be assessed separately.

1.7 Engaging with homeowners and other building end users

It is good practice that Building Control Officers also communicate to building owners and other building end users (where known):

- The content of the service schedule, specifically the stages to be notified; and
- The results of the risk assessment, such as that the building work is rated as High risk.

1.8 Overview of advised risk assessment methods

1.8.1 Common building projects

It is advised that a structured risk assessment approach with specific guidelines is used for “common” domestic and commercial projects. The method includes:

- Rating the risk posed by the application as High, Medium or Low based on a consideration of risk factors;
- Guidelines on the number of visits typically needed for each combination of type of construction project and risk level;
- Indicating the typical construction stages and elements to inspect that may apply to each type of building project; and
- Selecting the stages to be notified and adding any special notes regarding any specific elements that must be open to view upon inspection.

To enable Building Control Bodies to assess the criticality of visits at each stage an optional checklist of building elements has been provided (see Appendix B) as part of this advisory method. This should help with:

- Selecting stages for notification;
- Prioritising elements to inspect; and
- Including some selected elements as additional notes on service schedules.

Building Control Bodies may wish to support this approach with their own supplementary guidance on elements to inspect at each stage and potential non-compliances to check for.
1.8.2 Complex building projects

It is also advised that the same stages of risk assessment are applied to larger and more complex projects, but also including:

- Drawing on expert review of the construction programme to define the construction stages;
- Consideration of potential non-compliance per construction stage, to identify what elements need to be inspected and to inform decisions on the number of visits needed to inspect each stage of work; and
- Taking account of factors, such as compliance of the design, the construction organisation, geology and so on, in decisions on the number of visits needed to inspect for non-compliance.

Checklists are offered to support this judgement based form of risk assessment. However, no guidelines are provided on the number of visits per type of project. The number of site visits inspection for more complex projects should be based on a combination of:

- The risk posed by non-compliance;
- The extent of inspection and verification achieved by other accredited bodies; and
- The level of service required by the client (where this exceeds that required by the risk assessment).

1.8.3 Common versus complex projects

The vast majority of building projects are likely to be “common”, including most projects involving dwelling houses and low rise flats, extensions and alterations to “high street” commercial buildings.

A specific definition of a “common” project is not offered. Building Control Bodies need to judge when the guideline number of visits suggested for “common” building projects are not valid for a particular project, and use the complex project risk assessment method instead. Some examples of “complex projects” might include:

- Shopping malls, hotels, large office blocks and factories;
- Work involving listed buildings, heritage buildings, or “designer” buildings.

Where the likely number of site visits differs greatly from those suggested for common projects, the “complex project” risk assessment should be used.
1.8.4 When to carry out risk assessment

A risk assessment would usually be completed on receipt of an application, e.g. when full plans are submitted. However, if the organisation undertaking the building work is unknown at the point of plan checking, the risk assessment may need to be revised on identification of the builder or on commencement, whichever is first. In the event that there are significant changes during the construction programme, the risk assessment may be revised along with the service schedule.

The risk assessment entails an implicit need to acquire information from the person carrying out the building work, as well as examination of plans and consideration of the local ground (e.g. for land contamination hazards). This information may be acquired by communication with the designer and builder as part of standard communications.

1.8.5 Advice on application of risk assessment

Repeated work

Where a type of building work is repeated the Building Control Body may choose to risk assess one example of the work and then apply this generically to other instances, with the proviso that the Building Control Officer needs to check that there are no significant variations to the exemplar each time they survey. Some examples of this may include:

- Inspecting a chain of shop refits where the same work is being carried out in shops of similar size and design;
- Inspecting office refits where the same work is being carried out in offices of similar size and design;
- Inspecting new build dwelling houses where the same design, builder and site conditions exist.

The common project or complex project risk assessment method can be applied as stated in this guide, with a standard service schedule being generated. The Building Control Body should add notes indicating the circumstances where a specific risk assessment should be completed rather than relying on the generic risk assessment. This may include, for example:

- A particular shop might be in a listed building;
- The geology in a large development with multiple dwelling houses might vary significantly;
- An office or shop refit where it is found that existing structures pose a greater risk than assumed for the generic risk assessment, e.g. if ceilings are not fire rated or load-bearing structures have been compromised.
Sites with multiple new buildings

Where multiple buildings are being constructed on a single site, the Building Control Body may choose to allow for:

- Being able to visit multiple buildings in one visit – whilst noting that this may entail a longer visit which might equate to a similar time as a series of site visits;
- Sampling buildings rather than repeating the same inspections on all buildings.

The risk assessment may help indicate whether the Building Control Body wishes to adopt a sampling approach. For example, High risk work might require inspection of a selected stage of work in all building units, in 50% of units for Medium risk work and 33% of low risk work. Sampling might entail inspecting every building unit but viewing different stages of work in each case, as per the latter example.

Projects with multiple packages of work

The common project risk assessment method focuses on building projects that involve a single package of work, such as a loft conversion.

Some applications might involve, for example, a loft conversion and a garage conversion as part of a single application. One option is to risk assess each package of work separately and plan site visits accordingly, especially if the work might be completed sequentially.

Where a project has multiple packages of work, the Building Control Officer may choose to allow for inspecting stages in parallel. For example, treating commencement as a single visit or viewing garage superstructure at same time as drainage for the loft conversion. This would require the Building Control Officer to differ from the guideline number of visits stated in this guidance based on their professional judgement.

It is advised that the programme of work is reviewed to determine if the works are being undertaken in parallel or not. Also account should be taken of the potential for work to be delayed such that the different elements are no longer undertaken in parallel.

Minor work

It is suggested that Building Control Bodies generically risk assess minor work and use standard service schedules for these, rather than risk assessing each project comprising solely minor work. Minor work, for the sake of risk assessment, would normally entail one or two site visits only. Examples of minor work may include, for the purpose of this risk assessment guide, where the project is limited to one or more of:

- Connecting to existing drains;
- Cavity wall insulation in a dwelling house;
- Installing or modifying a controlled service or fitting\(^5\), or changing a building energy status;
- Replacement windows;
- Part P (electrical) work.
- Installing or modifying stairways, ramps and guarding.

The Building Control Body may apply the “complex project risk assessment” to each of these types of work to produce generic guidance on the number of site visits, definition of stages and any documentation to be supplied by the person carrying out the work. A typical stage would be when a critical item needs to be open to be viewed, such as viewing wiring is plastered over or otherwise on completion. Applications for projects involving minor work are unlikely to be accompanied by detailed plans. In this instance, it is advised that the absence of detailed plans is not treated as a medium or high risk.

\(^5\) gas installations, electrical installations, plumbing, cooling, ventilation, heating and hot water systems, including heating control
2 COMMON PROJECTS

2.1 Introduction

The following guidance is suggested for the risk assessment of “common” building projects.

There are three steps:

- Step 1: Risk rate the project and identify guideline number of visits;
- Step 2: Prioritise stages and/or elements at each stage;
- Step 3: Select stages to be notified and any High priority elements to inspect.

Step 1 gives a guideline number of site visits. Step 2 helps to prioritise the stages. Step 3 brings together the guideline number of visits and prioritisation of stages to select ones to be notified.

A risk assessment template is given in section 4.

2.2 Step 1: Risk rating projects

2.2.1 Risk levels and guidelines on the number of site visits

A range of factors can be assessed to determine the level of risk associated with some building projects. The factors reflect the nature of the work, the design and the competence of the builder. The risk level (High, Medium or Low) is then cross referenced with the type of building work to indicate the number of site visits.

The risk level is based on the following factors:

- Design;
- Build risk;
- Size; and
- Complexity.

If the builder is not appointed or identified at the time an application is submitted it may be necessary to complete a preliminary risk assessment and revise it before or at commencement once the builder is known.

Points are awarded per factor by the Building Control Officer using their judgement and the criteria in this guidance. The points are then summed to give an overall risk score, which is then applied to Table 1 to identify the risk level of High, Medium or Low, as shown in Table 1:
Table 1: Risk scores and levels

<table>
<thead>
<tr>
<th>Score</th>
<th>Risk level</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 to 16</td>
<td>High</td>
</tr>
<tr>
<td>8 to 12</td>
<td>Medium</td>
</tr>
<tr>
<td>4 to 7</td>
<td>Low</td>
</tr>
</tbody>
</table>

The guideline number of site visits is set out in Table 2. The number of visits reflects the risk level and type of construction project. A range is given, such as 3 to 5. It is advised that a range, such as 6 to 8, is used for service schedules rather than a single value such as 7. The Building Control Officer should expect to make a total number of visits within the indicated range. The precise number is not stated as the risk assessment is not exact. The Building Control Officer needs to decide on the exact number of visits as the building work proceeds.

A number of elements of building work may be inspected per visit.

The indicative number of visits excludes enforcement visits but includes re-visits. A risk assessment may be amended during a project in light of site observations, leading to higher or lower risk ratings.

Table 2: Indicative number of site visits (excluding enforcement visits)

<table>
<thead>
<tr>
<th>Project risk level</th>
<th>Extension or annex</th>
<th>New build</th>
<th>Conversion /material change of use</th>
<th>Loft conversion</th>
<th>Underpinning</th>
<th>Other structural alteration* Office/shop refit</th>
<th>Garage conversion to habitable use</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>9 to 11</td>
<td>11 to 13</td>
<td>7 or 8</td>
<td>7 or 8</td>
<td>6 or 7</td>
<td>5 or 6</td>
<td>5 or 6</td>
</tr>
<tr>
<td>Medium</td>
<td>6 to 8</td>
<td>7 to 10</td>
<td>4 to 6</td>
<td>4 to 6</td>
<td>4 or 5</td>
<td>3 or 4</td>
<td>4</td>
</tr>
<tr>
<td>Low</td>
<td>3 to 5</td>
<td>4 to 6</td>
<td>2 or 3</td>
<td>2 or 3</td>
<td>2 or 3</td>
<td>2</td>
<td>2 or 3</td>
</tr>
</tbody>
</table>

*Other structural alteration refers to work such as removing load-bearing walls between a lounge and dining room, completed as a isolated job rather than as part of an extension or conversion.
Guidance is provided below on the criteria for awarding points, for each of the factors.

2.2.2 Risk rating each factor

**Design risk**

**Design risk is rated from 1 (low) to 5 (high) as set out below in Table 3**

**Table 3: Guidance on risk score for design**

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Approved design without conditions, accompanied by a specification of building regulations requirements</td>
<td>Approved without conditions</td>
<td>Approved with building regulation conditions</td>
<td>Initial design rejected or significant omissions</td>
<td>Building notice or regularisation.</td>
</tr>
</tbody>
</table>

It is presumed that the assessment of plans will have regard for geology and use of the building. For example, the design of foundations will need to allow for type of local geology, whilst fire precautions will need to reflect the building use (such as a care home versus a storage unit). Thus, the design should be “fit for purpose” and compliant with those building regulations that apply to the particular project.

**Build risk**

The build risk is assessed as follows:

- If the builder is unknown award 3 points (medium risk);
- If the builder is identified, start with 3 points and then:
  - Deduct one point (**to a minimum score of 1**) for each of:
    - Membership of a recognised construction body, such as FMB, NHBC, Trustmark, or given a superior rating by another builder rating system;
    - Regular and scheduled involvement of site engineers architects, building surveyors and other relevant construction professionals\(^6\), in supervising and checking compliance;
    - Operation of recognised and externally accredited quality assurance system, such as ISO 9001;
    - Other form of achieving compliance\(^7\) defined by a Building Control Body;

\(^6\) This would include “Appointed Persons” who would act as a compliance co-ordinator on construction sites, the potential introduction of which DCLG intend to consult on as part of the 2013 Building Regulations review.
• A documented history (such as inspection records) of achieving compliance with building regulations without Building Control Officers having to complete revisits or additional visits;

• Provision of a portfolio of work that demonstrates competence or a statement of how they will achieve compliance or otherwise demonstrates comprehensive knowledge of how to comply with building regulations relevant to this type of application; and

• Key stage of construction is certificated by an authorised competent person or certification scheme (one point for each stage that is certificated), such as NHBC.

  o Add one point (**to a maximum score of 5**) for any of;

  • Documented history of requiring re-visits to check compliance with pre-completion interventions such as verbal or written advice (i.e. informal enforcement as opposed to formal legal enforcement);

  • Documented history of non-compliance involving section 36 notices and/or prosecution under section 35;

  • No, or minimal, previous experience of this type of project;

  • Demonstrated limited knowledge of how to comply with those building regulations relevant to this type of application, such as unable to provide correct answers to questions about how to comply with building regulations or what the regulations require for the work being completed; and

  • Given an inferior (below average) rating on a builder rating system applied by or recognised by the Building Control Body.

For example:

• A builder included on the NHBC list of registered builders that has regular site visits by an ARB architect to checks work may be awarded 1 point. This is calculated by:

  o Starting with 3 points;

  o Deducting one point for being a NHBC registered builder;

  o Deducting one point for having an ARB architect involved in regularly checking work.

  o Thus, 3 - 1 - 1 = 1.

• A builder with a history of requiring revisits and minimal or no relevant experience would score 5 points. This is calculated by:

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7 This is intentionally left undefined to allow for the emergence in the future of new ways of achieving compliance.
Starting with 3 points;
- Adding one point for a history of requiring revisits;
- Adding one point for no relevant experience;
- Thus, $3 + 1 + 1 = 5$.

The builder assessment is presented as a list of factors in Appendix A.

**Size and complexity risk**

Size and complexity risks are rated relative to the “norm” for common building projects, namely:

**Size**

- Large (3 points) = Footprint larger than 40m² floor area or more than 2 storeys.
- Medium (2 points) = 10 to 40 m² floor area footprint, no more than 2 storeys; and
- Small (1 point) = footprint less than 10m² floor area, no more than two storeys.

**Complexity:**

- High risk (3 points) = Use of novel features or materials; historic structures;
- Medium risk (2 points) = Standard construction and design methods; and
- Low risk (1 point) = Use of a standard design (e.g. pattern book).

**Worked examples**

Two hypothetical worked examples are shown below.

**Example 1. Low risk rating**

This example involves a domestic extension to a semi-detached house, with an approved design without conditions and a builder who is a member of FMB and who has a portfolio of work that demonstrates competence. The calculation is as follows:

- From the list of Design criteria in Table 3 Award 2 points (an Approved design without conditions): 2
- From the Build risk listing:
  - Start with 3 points and then:
  - Deduct 1 point for Membership of FMB;
  - Deduct 1 point for having a portfolio of work that demonstrates competence;
Sub total for Build risk: \((3 - 1 - 1) = 1\)
- From the Size risk list select: A small extension of 9m² floor area: 1
- From the Complexity risk list select: Medium, using standard construction methods and materials: 2

Total score for project: \((2 + 1 + 1 + 2) = 6\)

Now refer to Table 1. A risk score of 6 falls into the Low risk level (4 to 7 points). Referring to Table 1, an Extension with a Low risk level has an indicative number of 3 to 5 visits.

Example 2. High risk rating
This example also involves a domestic extension to a semi detached house, but in this case the house is a historic structure, there is an approved design with conditions, and the builder has no previous experience of this type of project but has a history of requiring re-visits to check compliance with pre-formal enforcement interventions such as verbal or written advice. The calculation here is as follows:

- From the list of Design criteria in Table 3 Table 3 Award 3 points (an Approved design with conditions) : 3
- From the build risk listing:
  - Start with 3 points and then:
  - Add 1 point to score for No or minimal previous experience of this type of project;
  - Add 1 point to score for History of requiring re-visits to check compliance with pre-formal enforcement interventions such as verbal or written advice;

Sub total for build risk: \((3 + 1 + 1) = 5\)
- From the Size risk list select: A medium extension of 25m² floor area: 2
- From the Complexity risk list select: High, extending a historic structure: 3

Total score for project: \((3 + 5 + 2 + 3) = 13\)

Now refer to Table 1. A score of 13 falls into the High risk level (13 to 16 points). Referring to Table 2, an Extension with a High risk score has an indicative number of 9 to 11 visits.

2.3 Step 2: Prioritising stages and elements per construction stage

Aims
The Building Control Officer could choose to prioritise and assess elements of work at each construction stage, such as those shown below in Figure 3, to:
- Help inform the decision on which stages the builder must notify the Building Control Body, i.e. prioritise stages with higher priority elements; and
- To include selected elements on the service schedule—either exceptional elements or all elements to be left open to view at the inspection.

At all times the Building Control Officer has the option of adding other elements to any list used.

**Identifying priority stages and elements**

Stages may be prioritised in at least two ways:

- By prioritising the stage; and
- By prioritising the elements of work in each stage, and then comparing stages.

It is suggested that the Building Control Body can choose which of these options to adopt.

The first option would inform the selection of stages to be notified. The second option would also:

- Enable identification of high priority elements that the Building Control Body may wish to highlight to the builder; and
- Provide a list of high priority elements that the Building Control Body may choose to use in support of inspections.

Whilst Commencement and Completion must be notified, they do not have to be included in the schedule of visits, although it is considered to be good practice to visit at Completion. Commencement may often be combined with inspecting work such as foundations.

**Prioritisation considerations**

Specific elements of building work may be prioritised where:

- Certain stages or elements have a particular importance for the building’s purpose group. For example, verifying sound insulation in walls at pre-plaster stage may be particularly important for schools (H);
- It is vital to inspect certain elements of work at the correct stage, i.e. if it is not inspected at that stage it may be covered up thereafter or impractical to correct any faults;
- Building Control Officers may also wish to have regard, when assessing the priority of specific elements and stages of the building work, to:
  - Local experience— for example whether there is recent history of frequent non-compliance with a particular element;
  - Whether the work involves a novel method or material for a particular element;
Other information, such as evidence of compliance problems with a type of construction method/ material / element elsewhere in the country, or reasonable cause to anticipate non-compliance with a particular element; and

Whether a new or revised building regulation creates a need to prioritise certain elements due to the potential lack of builder familiarity or experience with a new or revised regulation.

- Involvement of other verification bodies. For example, if an element is inspected by a recognised certification or inspection organisation, this may suggest that inspection of the pertinent element is a low priority.

In this sense, this stage of risk assessment is identifying the priority points in the construction process where significant faults may occur and be detected / corrected. It should be noted that, generally, all building regulation schedules should be given equal weight, although some may have particular importance for certain occupancies.

It is advised that Building Control Officers prioritise stages or individual elements of building work as High, Medium or Low. A checklist of elements is provided in section 5, which Building Control Bodies may choose to use.

For example, in the case of an extension to a dwelling house, the Building Control Officer may judge that all stages are of equal priority except for foundations which are rated as High priority due to local history of subsidence. In another example, means of escape may be rated as High Priority for a loft conversion in a four storey dwelling house, with other elements assessed as Medium priority.

### 2.4 Step 3: Select construction stages to be notified

#### 2.4.1 Typical stages

The typical stages per type of project are provided in Figure 1. The figure lists seven common types of building work and eight typical stages of construction. Two of the stages should always be notified to Building Control Bodies. The remaining stages are subject to the risk assessment. Some stages have been blacked out where they do not apply to a certain type of building work. The stages selected by the Building Control Officer constitute those points where the person carrying out the work must notify the Building Control Body. Guidance is provided below at 2.4.2 on how to use the results from Stage 1 and 2 of the risk assessment to select stages to be notified to the Building Control Body.

These stages are defined below Figure 1.
Figure 1: Construction stages checklist (to be notified by the person carrying out the work to Building Control Body), stages blacked if unlikely to be applicable

<table>
<thead>
<tr>
<th>Notification stages</th>
<th>Project type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>New build</td>
</tr>
<tr>
<td>Commencement</td>
<td>Mandatory inclusion in stages to be notified</td>
</tr>
<tr>
<td>Foundations and excavations</td>
<td></td>
</tr>
<tr>
<td>Basement / tanking</td>
<td></td>
</tr>
<tr>
<td>Over sites</td>
<td></td>
</tr>
<tr>
<td>Drainage</td>
<td></td>
</tr>
<tr>
<td>Superstructure</td>
<td></td>
</tr>
<tr>
<td>Pre plaster</td>
<td></td>
</tr>
<tr>
<td>Completion</td>
<td>Mandatory inclusion in stages to be notified</td>
</tr>
</tbody>
</table>

*E.g. removal of chimney breast, removing load-bearing wall between lounge and dining room – not as part of an extension, loft conversion, change of use or garage conversion.

List of the notification points for construction stages

The notification points for the construction stages are set out below.

- Commencement – two working days before commencement of work;
- Foundations and excavations – on completion of excavation of ground but before cover up/ in fill;
- Basement / tanking – upon construction of walls and installation of membranes – before cover up of membranes;
- Over sites – on completion of any concrete or material laid over a site and installation of Damp Proof Course/Damp Proof Membrane (DPC/DPM) but before cover up of insulation/DPC/DPM;
- Drainage – laying and connection of drains before cover up;
- Superstructure – erection of walls, timbers, steelwork, frames, installation of fire protection and glazing - before cover up by plaster or cladding or tiles;
- Pre plaster – after installation of “first fix” wiring (dwellings only) and insulation but before plaster; and
- Completion – 5 days prior to completion of all building and installations work, and prior to occupation.

Building Control Bodies may wish to add to these stages or sub-divide these stages as befits the building work. For example:

- Foundations and excavations could be split into – excavations before in fill, and then during pouring of concrete; and
- Superstructure could be split into each floor, or walls and internal structures versus the roof.

Any bespoke stage needs to be defined in the service schedule.

2.4.2 Criteria for selecting stages to be notified

Alignment of guideline number of visits to notification stages

Whilst there may not be a direct correspondence of notified stages to visits, the risk assessment is intended to guide decisions on which stages are to be notified and which stages to visit, i.e. if there is justifiable reason to ask for a stage to be notified, there should be a reasonable expectation that there will be a site visit at that stage (subject to changes upon commencing site visits).

The number of guideline visits may exceed or be less than the number of stages.

- If the guideline number of visits exceeds the number of construction stages – this allows for additional visits for some of the stages; and
- If the guideline number of visits is less than the number of construction stages, this requires that some stages are omitted from those to be notified to the Building Control Body.

The Building Control Officer may schedule more than one site visit per stage, especially where High priority elements have been identified at that stage.

In the event that the number of visits is less than the number of applicable stages, the Building Control Officer may, as far as is practicable, choose to inspect elements of work completed in earlier stages when completing later visits.

Selecting stages for notification

Therefore, guidance is offered here on selecting stages to be notified and matching the number of stages to the guidelines on the number of site visits.

Notification of Commencement and Completion are mandatory. Completion is included in the guideline number of visits. Therefore, if the guideline number of visits derived from the risk assessment is three to five, from Table 2, one of these is accounted for by Completion. Whilst Commencement should also be notified, this may not always necessitate a visit. Firstly, there may not be any work to inspect at commencement. Also, the surveyor has the option of combining a Commencement visit with a visit at (say) start of Foundations work. On the other hand the surveyor may choose to visit at Commencement to, for example, check...
the builders understanding of the plans, review unforeseen changes to plans and to talk through the builder’s proposed approach to the work.

Stages between Commencement and Completion can be selected based on:

- The guideline from stage 1 of the risk assessment on the number of inspections per project, such as 4 or 5 for a Medium risk loft conversion;
- The priority of each stage, as per Step 2 in section 2.3.

If the guideline number of visits is less than the number of stages, the prioritisation of stages or elements assigned in Step 2 of the risk assessment may inform which stages to select for notification.

For example, a low risk extension has a guideline of 3 to 5 visits, compared to eight construction stages in Figure 1. If more elements were rated in Step 2 as High priority for the Pre-plaster stage than Superstructure, then Pre-Plaster may be selected by the Building Control Body for Notification and Superstructure is not selected for Notification.

- The relevance of each construction stage to that type of building work, i.e. foundations are relevant to an extension but are unlikely to be relevant to an loft conversion.

For example:

- With a guideline of 3 to 5 visits for a Low risk extension, visits may be selected for:
  - Foundations/excavations (combining Commencement with this visit);
  - Over sites;
  - Pre-plaster; and
  - Completion.

In this example due to the occurrence of Part L non-compliances in the Building Control Body’s area, Over sites and Pre-plaster are chosen as stages to visit, in order to inspect floor insulation at over site stage and cavity wall insulation at pre-plaster stage.

- With a guideline of 9 to 11 visits for a High risk extension;
  - Seven stages are selected for Notification (all except Basement/tanking); and
  - Due to a local history of non-compliance with Part L insulation requirements in the Building Control Body’s area, two visits are scheduled for Pre-plaster, and due to local adverse geology two visits are scheduled for Foundations – one to check depth and one to check foundations materials.

2.5 Service schedule contents

A service schedule may include the following information.

- Name of person carrying out the work or their agent;
- Name and contact details of the Building Control Officer;
- Address of building work;
- Application/project reference number;
- Stages to be notified to the Building Control Body by the person carrying out the work, with definition of these stages and when they are to be notified to the Building Control Body;
- Note of any elements of work that the Building Control Officer wishes to communicate to the person carrying out the work, (these may be exceptional elements or all elements to be inspected);
- Notes on any tests or test results that the Building Control Officer will need to have sight of and when these are required; and
- Notes of any British Standards and/or technical data from approved bodies to be supplied.
3 RISK ASSESSMENT OF COMPLEX PROJECTS

3.1 Introduction

For more complex and larger projects, the notification stages, number of site visits and subject of inspection should be determined by the surveyor through a process of risk assessment, using their expertise.

The process is outlined below. The advised process is the reverse of that for common projects. It comprises:

- Defining the key construction stages by review of the nature of the work and construction programme;
- Identifying what needs to be inspected and when to best ensure detection and correction before cover up;
- Judging the number of visits based on a review of what needs to be inspected at each stage and the number of visits needed to adequately inspect these elements. The number of visits should also have regard to the assessment of risk factors such as:
  - Site management arrangements;
  - Building Control Body’s past experience of the standard of compliance in these types of building work and the number of visits needed for these types of work; and
  - Client service expectations (where these exceed those demanded by risk).

In the event of the design and build occurring in stages, the risk assessment may also need to be staggered or revised at each phase.

It is advised that risk assessment of larger and more complex projects is reviewed by another Building Control Officer prior to finalisation.

3.2 Step 1: Defining stages and elements to inspect

The Building Control Officer is advised to review the application and programme of work and to then deduce:

1. The key stages of construction;
2. What might ‘go wrong’ at each stage (potential elements, such as beams, that might fail to comply with building regulations) – i.e. risks of non-compliance;
3. The criticality of these elements for the use of the building; and
4. The point in the construction programme when these elements are open to inspection, such as upon completion of the superstructure.
A list of construction stages is advised below:

- Commencement;
- Foundations and excavations;
- Subterranean structures;
- Tanking and basements;
- Drainage;
- Over sites;
- Superstructure - first, second and subsequent levels;
- Pre plaster; and
- Completion.

### 3.3 Step 2: Project risk rating and number of visits

**Project risk rating**

The Building Control Officer may choose to complete a project risk rating. The same risk rating method is advised as used for common projects, with the addition to “build risk factors” of:

- Fast track construction or design and build – increase risk score by a point.

However, no advice is offered here on the number of visits per risk level. The estimation of the number of visits is determined by Building Control Officer judgement, as outlined below.

**Number of visits**

The number of site visits should be based on the Building Control Officer’s professional judgement, taking account of:

- The number of potential elements to inspect identified per construction stage (which should reflect the project size and nature of the project);
- Past experience regarding number of site visits required for this type and size of project;
- The risk of non-compliance and hence the need to pre-empt non-compliance by advice and revisits;
- The role of other verification and inspection bodies, i.e. does someone else already inspect and certify an element or stage of work?

For example, if the foundations for a project are to be gradually constructed over a 10 day period, (say) 5 visits may be needed to properly inspect the foundations over that period.

It is advised that the number of visits is estimated per stage, and that the total is then added up for all stages.
Given the uncertainties in risk assessment of more complex and larger projects, the number of site visits might be stated as being within +/- 30% of the indicated number.

**Example results table**

A table is given below that may be used to capture the results of this risk assessment, with some hypothetical example entries.

<table>
<thead>
<tr>
<th>Key construction stage</th>
<th>Elements to be inspected at each stage</th>
<th>Risk rate criticality of element for purpose group of building</th>
<th>Visits needed to check this stage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>H M L</td>
<td></td>
</tr>
<tr>
<td>Superstructure:</td>
<td>Wall ties</td>
<td>M</td>
<td>1 per floor with 3 floors = 3 visits</td>
</tr>
<tr>
<td>each floor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Floor joists and beams and connections</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fire dampers and fire collars</td>
<td>H</td>
<td></td>
</tr>
<tr>
<td>Super structure:</td>
<td>Roof timbers, restraint straps, bracing</td>
<td>M</td>
<td>1</td>
</tr>
<tr>
<td>roof</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4 APPENDIX A: RISK ASSESSMENT TEMPLATE FOR COMMON PROJECTS

4.1 Step 1: Project risk rating

1) For Design, Size and Complexity please:
   - Circle numbers that apply;
   - Add up the total for Design, Size and Complexity.

<table>
<thead>
<tr>
<th>Design</th>
<th>Approved design without conditions, accompanied by a specification of building regulations requirements</th>
<th>Approved without conditions</th>
<th>Approved with building regulation conditions</th>
<th>Initial design rejected or significant omissions</th>
<th>Building notice or regularisation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Size</th>
<th>Small</th>
<th>Medium</th>
<th>Large</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Complexity</th>
<th>Small</th>
<th>Medium</th>
<th>Large</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Sub-total score for design, size and complexity =

Notes:

Size
- Large (3 points) = Footprint larger than 40m² floor area or more than 2 storeys;
- Medium (2 points) = 10 to 40 m² floor area footprint, no more than 2 storeys; and
- Small (1 point) = footprint less than 10m² floor area; no more than two storeys.

Complexity:
- High risk (3 points) = Use of novel features or materials; historic structures;
- Medium risk (2 points) = Standard construction and design methods; and
- Low risk (1 point) = Use of a standard design (e.g. NHBC template or pattern book).
2) For build risk:

- Circle numbers that apply in Score column;
- Start with a score of three;
- Then add and deduct each number as appropriate; and
- Apply a maximum score of 5 and a minimum score of 1.

| Membership of a recognised construction body, such as FMB, NHBC, , Trustmark, or given a superior rating by another builder rating system; | -1 |
| Regular and scheduled involvement of site engineers, architects and other relevant construction professionals in supervising and checking compliance; | -1 |
| Operation of recognised and externally accredited quality assurance system, such as ISO 9001; | -1 |
| Other form of achieving compliance\(^8\) defined by a Building Control Body; | -1 |
| A documented history (such as inspection records) of achieving compliance with Building Regulations without Building Control Officers having to complete revisits or additional visits; | -1 |
| Provision of a portfolio of work that demonstrates competence or a statement of how they will achieve compliance or otherwise demonstrates comprehensive knowledge of how to comply with building regulations relevant to this type of application; | -1 |
| Key stage of construction is certificated by an authorised competent persons or certification scheme (one point for each stage that is certificated), such as NHBC; | -1 |
| Documented history of requiring re-visits to check compliance with pre-completion interventions (ie informal enforcement) such as verbal or written advice; | +1 |
| Documented history of non-compliance involving section 36 notices and/or prosecution; | +1 |
| No, or minimal, previous experience of this type of project; | +1 |
| Demonstrated limited knowledge of how to comply with those building regulations relevant to this type of application, such as unable to provide correct answers to questions about how to comply with Building Regulations or what the regulations require for the work being completed; | +1 |
| Given an inferior (below average) rating on a builder rating system applied by or recognised by the Building Control Body. | +1 |

| Sub-total score |  |

\(^8\) This is intentionally left undefined to allow for the emergence in the future of new ways of achieving compliance.
*Remember the total score must be between 1 and 5. So a score of 3 + 3 will be treated as 5, or 3 – 4 is treated as 1.

3) Add up sub total for design, size and complexity with build risk score.

<table>
<thead>
<tr>
<th>Design, size and complexity sub total</th>
<th>plus</th>
<th>Build sub total</th>
<th>Overall project risk score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4) Refer to Table 4 to see Risk level.

**Table 4: Risk scores and levels**

<table>
<thead>
<tr>
<th>Score</th>
<th>Risk level</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 to 16</td>
<td>High</td>
</tr>
<tr>
<td>8 to 12</td>
<td>Medium</td>
</tr>
<tr>
<td>4 to 7</td>
<td>Low</td>
</tr>
</tbody>
</table>

5) Guideline number of visits

Refer to Table 2 to see guideline number of visits, e.g. 9 to 11 for High risk Extensions.

**Table 5: Guideline number of site visits**

<table>
<thead>
<tr>
<th>Project risk level</th>
<th>Extension or annex</th>
<th>New build</th>
<th>Conversion/material change of use</th>
<th>Loft conversion</th>
<th>Underpinning</th>
<th>Other structural alteration*</th>
<th>Garage conversion to habitable use</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Office/shop refit</td>
<td></td>
</tr>
<tr>
<td><strong>High</strong></td>
<td>9 to 11</td>
<td>11 to 13</td>
<td>7 or 8</td>
<td>7 or 8</td>
<td>6 or 7</td>
<td>5 or 6</td>
<td>5 or 6</td>
</tr>
<tr>
<td><strong>Medium</strong></td>
<td>6 to 8</td>
<td>7 to 10</td>
<td>4 to 6</td>
<td>4 to 6</td>
<td>4 or 5</td>
<td>3 or 4</td>
<td>4</td>
</tr>
<tr>
<td><strong>Low</strong></td>
<td>3 to 5</td>
<td>4 to 6</td>
<td>2 or 3</td>
<td>2 or 3</td>
<td>2 or 3</td>
<td>2</td>
<td>2 or 3</td>
</tr>
</tbody>
</table>

*Other structural alteration refers to work such as removing load bearing walls between a lounge and dining room, completed as a isolated job rather than as part of an extension or conversion.
4.2 Step 2: Prioritise stages or elements

Refer to Figure 2. Enter H, M or L per stage to indicate if it is High, medium or low priority, or N/A if it does not apply to this project (e.g. no foundation to be constructed).

Figure 2: Prioritisation of stages (High, Medium or Low – H, M or L)

<table>
<thead>
<tr>
<th>Notification stages</th>
<th>Priority</th>
<th>Notification stages</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commencement</td>
<td>Drainage</td>
<td>Foundations and excavations</td>
<td>Superstructure</td>
</tr>
<tr>
<td>Basement / tanking</td>
<td>Pre plaster</td>
<td>Over sites</td>
<td>Completion</td>
</tr>
<tr>
<td>Other (write in)</td>
<td>Other (write in)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

You may wish to place a High priority on a stage if any of the following apply:

- If certain stages or elements have a particular importance for the building’s purpose group. For example, verifying sound insulation in walls at pre-plaster stage may be particularly important for schools (H);
- Where it is vital to inspect certain elements of work at the correct stage, i.e. if it is not inspected at that stage it may be covered up thereafter or impractical to correct any faults;
- Building Control Officers may also wish to have regard, when assessing the priority of stages of the building work, for:
  - Local experience – for example whether there is recent history of frequent non-compliance with a particular element;
  - If the work involves a novel method or material for a particular element;
  - Other information, such as evidence of compliance problems with a type of construction method/material/element elsewhere in the country, or reasonable cause to anticipate non-compliance with a particular element; and
  - Whether a new or revised building regulation creates a need to prioritise certain elements due to the potential lack of builder familiarity or experience with a new or revised regulation.

You may wish to place a low priority on a stage if

- An element is inspected by a recognised certification or inspection organisation; and

---

9 A supplementary checklist of elements is available for prioritising specific elements per stage, see section 5.
• The stage does not contain any important elements of work.
All other stages may be given a Medium priority.

4.3 Step 3: Select stages to notify

Refer back to the guideline number of visits and the prioritisation of stages, enter Yes for those stages to be notified by the builder and enter the suggested number of visits. The number of visits should not exceed or be below the guideline number of visits.

<table>
<thead>
<tr>
<th>Notification stages</th>
<th>Selected for notification by the builder</th>
<th>Suggested number of visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commencement</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Foundations and excavations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basement / tanking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over sites</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drainage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Superstructure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre plaster</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completion</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Other (write in)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
• Commencement and completion should always be included as a stage to be notified;
• Completion should always be treated as one of the guideline visits; and
• Commencement visits can be combined with a visit at the first stage of actual work, such as Foundations.

The stages to be notified should align to those to be visited. However, Building Control Officer’s are not obliged to visit each stage and may choose to combine inspection of work from more than one stage, such as commencement and foundations.
5 APPENDIX B: ELEMENTS PER STAGE

A table of elements is given below. The Building Control Body may choose to use this or a similar checklist to support the prioritisation of stages and inspections, as discussed at section 2.3.

The Building Control Officer should write in H, M or L into the suggested table to represent High, Medium or Low priority, or N/A if the element is not present in the building work.

**Figure 3: Prioritisation of elements per notification stage**

<table>
<thead>
<tr>
<th>Construction stage</th>
<th>Element</th>
<th>Priority (H, M, L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan check</td>
<td>All, especially structural calculations, fire safety, area of glazing,</td>
<td></td>
</tr>
<tr>
<td>Commencement</td>
<td>Commencement of work</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Assessment of existing lintels, foundations, beams etc</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trial holes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Check for encroaching trees, made up ground, etc</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Access for fire service</td>
<td></td>
</tr>
<tr>
<td>Foundations &amp;</td>
<td>Excavations (depth /width, distance to trees &amp; drains)</td>
<td></td>
</tr>
<tr>
<td>excavations</td>
<td>Movement joints, anti heave protection, clearance to drains</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Piling</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel reinforcement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ground preparation for raft</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>Basement /tanking</td>
<td>Tanking for below ground walls &amp; floors</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Retaining wall</td>
<td></td>
</tr>
<tr>
<td>Over sites</td>
<td>Ground floor preparation (hardcore etc)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Suspended timber ground floor preparation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pre cast concrete beams/ floor (ventilation &amp; DPC)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DPC</td>
<td></td>
</tr>
</tbody>
</table>

---

10 See foundations and over site as well
<table>
<thead>
<tr>
<th>Construction stage</th>
<th>Element</th>
<th>Priority (H, M, L)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DPM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gas protection – landfill, radon etc</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Floor insulation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Site levels for disabled access</td>
<td></td>
</tr>
<tr>
<td>Drainage (before back fill)</td>
<td>Sewer branches to the site</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Drainage laid prior to coverage</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ground percolation tests (septic tanks and/or soak-aways)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Excavated soak-away pits</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exposure of main sewer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Re routing of main sewer/ relocation of main sewer</td>
<td></td>
</tr>
<tr>
<td>Super structure</td>
<td>Frame – concrete reinforcement or steel frame or timber</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Floor joists and beams and connections</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Construction at first floor level, e.g. block work and wall ties</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Construction at 2nd and subsequent floor levels</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dormer framework prior to boarding over</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Roof timbers, restraint straps, bracing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Roof breather membrane</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Staircase installed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vehicle barriers/ bays</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fire protection applied to structural members</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cavity barriers /fire stopping</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fire dampers and fire collars</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Means of escape</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Space separation &amp; compartmentation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Glazing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Openings to conservatories etc</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Area of glazing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thermal elements (cavity walls etc)</td>
<td></td>
</tr>
<tr>
<td>Construction stage</td>
<td>Element</td>
<td>Priority (H, M, L)</td>
</tr>
<tr>
<td>--------------------</td>
<td>--------------------------------------------------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td></td>
<td>Access</td>
<td></td>
</tr>
<tr>
<td>Pre plaster</td>
<td>Sound insulation in walls, floors and stairs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Insulation in walls &amp; roofs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bare walls, beams, lintels</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fire doors</td>
<td></td>
</tr>
<tr>
<td></td>
<td>First fix electricals (dwellings only)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ventilation systems</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hygiene (sanitary conveniences &amp; washing facilities – pipes etc)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Damp proofing and insulation of external walls, ceiling insulation &amp; roof coverings</td>
<td></td>
</tr>
<tr>
<td>Completion</td>
<td>Drainage water tightness test</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Internal lighting, appliances (CO2 emission rates (DER/BER),)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Heating system, incl thermostatic control</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sound insulation test</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gas tightness test to flues</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electrical installations (dwellings only)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Combustion appliances &amp; fuel system storage</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Air leakage test</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hygiene (sanitary conveniences &amp; washing facilities)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test of emergency lighting and fire alarms</td>
<td></td>
</tr>
</tbody>
</table>
### APPENDIX C: EXAMPLE SERVICE SCHEDULE

<table>
<thead>
<tr>
<th>Application/project reference number:</th>
<th>Address of work:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Type of work: Loft conversion</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Person carrying out the work:</th>
<th>Building Control Officer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td>Name:</td>
</tr>
<tr>
<td>Telephone:</td>
<td>Telephone:</td>
</tr>
<tr>
<td>Fax:</td>
<td>Fax:</td>
</tr>
<tr>
<td>Address:</td>
<td>Office address:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stages of work to be notified to the Building Control Officer by person carrying out the work:</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Commencement</strong></td>
<td>Provide copy of final architect’s plan and structural engineers’ specifications for new load bearing timbers.</td>
</tr>
<tr>
<td>Two working days before commencement of work</td>
<td></td>
</tr>
<tr>
<td><strong>Drainage</strong></td>
<td></td>
</tr>
<tr>
<td>On laying and connection of drains before cover up</td>
<td></td>
</tr>
<tr>
<td><strong>Superstructure</strong></td>
<td>Leave new timbers and insulation revealed before fitting ceiling or floor coverings.</td>
</tr>
<tr>
<td>On erection of walls, timbers, steelwork, frames, installation of fire protection and glazing - before cover up by plaster or cladding or tiles</td>
<td></td>
</tr>
<tr>
<td><strong>Pre plaster</strong></td>
<td></td>
</tr>
<tr>
<td>After installation of “first fix” wiring (dwellings only) and insulation but before plaster</td>
<td></td>
</tr>
<tr>
<td><strong>Completion</strong></td>
<td>Provide copy of Part P certificate if installed by Competent Person and glazing certificates.</td>
</tr>
<tr>
<td>On completion of all building and installations work, prior to occupation.</td>
<td></td>
</tr>
</tbody>
</table>
The person carrying out the building work is required under the building regulations to notify the Building Control Officer of these stages of the work so that they can be inspected. 24 hours notice is generally required for inspections and inspections can be booked by phoning xyz. An assessment is made of the requested inspections each day and the person requesting the inspection is contacted by phone between 8.30 and 11.00 am on the day of the inspection to arrange a mutually convenient time for it to be made. The Building Control Officer will usually respond to this notification unless pressure of other inspections prevents it. It may also be useful for inspections to be made at certain other stages and the Building Control Officer may complete additional inspections or reinspect stages.

Expected number of site visits: 5

Date issued: