

**Revised July 2016**

**BUILDING BYE-LAWS (JERSEY) 2007 (as amended)**

**BUILDING WORKS CARRIED OUT IN CONNECTION WITH ALL BUILDINGS OTHER THAN DWELLINGS.** (including works involving the extension, material alteration or change of use of buildings other than dwellings)

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**TEMPLATE FOR THE PRODUCTION OF BUILDING SPECIFICATIONS**

This document should be used as a basis for producing building bye-law specifications which need to accompany plans submitted with applications for building permits.

It sets out the minimum level of information required for the purposes of showing compliance with the requirements of Parts 1 to 12 of the second schedule to the building bye-Laws for applications relating to non-domestic premises.

Where any requirement, or part of the second schedule, does not apply to a specific project, reference to that requirement or part in this document can be ignored when preparing the building specification.

## Information required in respect of Part 1: Structure

### GENERAL

- 1  State the design codes which are to be used for the purposes of satisfying each of the requirements in Part 1 of the second schedule, and that structural design is to be certified under the SER scheme prior to commencement of work.

### SPECIFIC DETAILS

#### Foundations:

- 1.1  Type of foundation to be specified and note to state that size and depth to suit ground conditions:
- 1.2  Where the foundation is subject to a later design by a structural engineer this should be clearly noted:
- 1.3  Where the building has five or more storeys, a statement that it will be designed to satisfy the Bye-Law requirements for disproportionate collapse:
- 1.4  Where piled foundations are proposed, a note to state one load test to be carried out, for every 50 piles or part thereof, (up to a maximum of 3) and integrity testing on all piles:

#### Wall Construction:

- 1.5  Length, height and thickness to be dimensioned:
- 1.6  Cavity width to be stated:
- 1.7  Materials to be specified:
- 1.8  If wall design is subject to calculation by a structural engineer, this should be stated on the plans:

#### Floor Construction:

- 1.9  Specify use of floor. State the design dead and live loads and provide design calculations:
- 1.10  Timber floors - Specify covering, joist size, joist span, spacing and timber strength class:
- 1.11  Concrete floors – Specify thickness:
- 1.12  If construction is subject to a later design by a structural engineer, this should be stated on the plans with no member sizes given. (not applicable in the case of mezzanine floors)
- 1.13  Where it is proposed to construct a mezzanine type floor structure (e.g a raised storage platform in a warehouse) full structural design details need to be provided with the design dead and live loads clearly stated.

#### Roof Construction:

- 1.14  Where the roof construction is to be to a later design by a structural engineer, this should be stated on the plans with no member sizes given:
- 1.15  Roof specifications that are not subject to a later design should identify all member sizes with design calculations provided, or if span tables used these should be identified with the design loading stated.

## Information required in respect of Part 2: Fire Safety

### GENERAL

- 2  State which design code (e.g. approved technical guidance document 2, 2013 edition) has been used for the purposes of satisfying the requirements in Part 2 of the second schedule, and state all

works are to be carried out in accordance with all relevant recommendations of that code / technical guidance document.

2.1

Identify the number of separate occupancies within the building and the purpose group for each part:

## MEANS OF WARNING AND ESCAPE

### Alarm system:

2.2

Type of fire alarm system to be specified:  
Specification should make it clear what type of system is to be provided. i.e. manual system to BS 5839: Part 1, or automatic system to an L1 L2 or L3 standard. If automatic system specified, manual call points should also be provided at storey exits:

### Horizontal Escape:

2.3

Identify all storey / final exits, and dimension maximum travel distances to these taking into account walls partitions, fittings etc:

2.4

Occupancy of each room / storey to be stated. If occupancy less than that given in Table C1 of TGD, reasoning to be stated:

2.5

Clear opening of doors on escape routes to be dimensioned:

2.6

Position and rating of fire doors to be shown:

2.7

Protected corridors / lobbies to be shown:

2.8

Where exit doors accommodate more than 60 persons, show the door opening in the direction of escape

2.9

State where escape lighting to BS5266: Part 1 is to be provided:

### Vertical Escape:

2.10

Dimension height of top floor above lowest ground level:

2.11

Position of escape stairs to be shown and width dimensioned:

2.12

Show doors recessed to prevent swing from encroaching on the effective width of escape stairs / corridors:

2.13

Calculation to show how the number and width of escape stairs has been determined to be provided. This should clearly show the allowance made for any necessary discounting:

2.14

Rise, goings and headroom on escape stairs to be stated:

2.15

Fire protection to escape stairs (including doors) to be shown and fire rating of all elements stated:

2.16

Separation of stairs and lifts at basement levels to be shown:

2.17

Protected corridors / lobbies to be shown:

2.18

Size and position of disabled refuges on stairs to be shown, together with details of the communication links that are to be provided:

2.19

State where escape lighting to BS 5266: Part 1 is to be provided:

## INTERNAL FIRE SPREAD

### Linings:

2.20  Classification of wall and ceiling linings in rooms and circulation spaces to be stated:

### Structural Fire Resistance:

2.21  Period of fire resistance for all elements of structure to be stated:

2.22  Where proposal involves the construction of a mezzanine type floor in a building provide details of hour fire resistance is to be achieved to that floor structure.

### Compartmentation:

2.23  Position of compartment walls and floors to be highlighted:

2.24  Period of fire resistance for all compartment walls / floors (including any doors) to be stated

2.25  Use of the building or part to be stated:

## EXTERNAL FIRE SPREAD

### Walls and Roof:

2.26  Distance from building to boundary to be dimensioned on plans:

2.27  Amount of unprotected area of any elevation with a boundary condition to be stated. Where a notional boundary is set (i.e. where there is more than one assembly and recreation or residential building on the same site) the unprotected areas in any existing building(s) with a boundary condition must also be shown. A schedule showing the amount of unprotected area as a % of the wall area and calculations showing the required distance to the boundary to be provided:

2.28  State the surface spread of flame classification that is to be achieved by the roof covering and rooflights:

2.29  State materials to be used in the construction of external walls and the surface spread of flame classification that is to be achieved.

2.30  In a building with a storey 18m or more above ground, demonstrate any insulation product or filler material in panels used externally is classified as a material of limited combustibility, or provide full scale test data to show the façade system meets the acceptance criteria in BR 135, in accordance with BS 8414.

## ACCESS AND FACILITIES FOR THE FIRE SERVICE

2.31  Clearly show on plan the % of perimeter of the building to which fire service vehicle access can be achieved, identifying any necessary turning facilities:

2.32  Highlight the position of any fire fighting shafts and state construction to comply with BS: 9999: 2008

2.33  Dimension on plan the distance from any dry riser inlet to the fire appliance hardstanding.

2.34  Where an enclosed car park is to be naturally ventilated, show openings for smoke ventilation. Clear opening size of all smoke vents and floor area of car park to be stated:

2.35  Where an enclosed car park is to be mechanically ventilated, specify ventilation rates to be achieved, fire rating of system, and method of providing a secondary power supply:

## Information required in respect of Part 3: Combustion Appliances and Fuel Storage Systems.

### GENERAL

- 3  State which design code (e.g. technical guidance document 3 2010 Edition) has been used for the purposes of satisfying the requirements in Part 3 of the second schedule, and state all works are to be carried out in accordance with all relevant recommendations of that code / technical guidance document.

### SPECIFIC DETAILS

- 3.1  Specify whether or not appliance is roomed sealed or open-flued, and show where appliance is to be sited:
- 3.2  Show position of flues and dimension outlets from flues:
- 3.3  State that a flue gas spillage test is to undertaken where any open flued appliance is sited in a room that has mechanical extract ventilation:

## Information required in respect of Part 4: Site Preparation and Resistance to Moisture

### GENERAL

- 4  State which design code (e.g. technical guidance document 4) has been used for the purposes of satisfying the requirements in Part 4 of the second schedule, and state all works are to be carried out in accordance with all relevant recommendations of that code / technical guidance document.

### SPECIFIC DETAILS

#### Resistance to Moisture:

- 4.1  Specify roof pitch and the materials to be used for the roof, walls and floors:
- 4.2  Identify position of DPCs and cavity trays:
- 4.3  Provide details of the method to be used for upgrading existing walls where a material change of use of a building is proposed:

## Information required in respect of Part 5: Ventilation and Condensation in Roofs

### GENERAL

- 5  State which design code (e.g. technical guidance document 5 2011 Edition ) has been used for the purposes of satisfying the requirements in Part 5 of the second schedule, and state all works are to be carried out in accordance with all relevant recommendations of that code / technical guidance document.

### SPECIFIC DETAILS

#### Offices – New build and change of use:

- 5.1  State which method of ventilation listed in paragraph 2.9 of the TGD is to be adopted.
- 5.2  State provision to be made for purge ventilation.

- 5.3  Where building is to be naturally ventilated state floor area of all offices and provide window schedule identifying clear opening area of all windows and the percentage of openable area in relation to floor area. For hinged or pivot windows state if window opens between 15° and 30°, or over 30°.
- 5.4  Where mechanical ventilation is to be provided, state ventilation rate to be achieved for the room or space.

**Other Building Types – New build and change of use:**

- 5.5  State which guidance is to be followed from Table 2.3

**Alterations to existing buildings:**

- 5.6  Specify ventilation rates to be achieved in any new or altered accommodation.
- 5.7  When replacing windows in a naturally ventilated building, provide a schedule showing the ventilation openings of the windows being removed together with a schedule of the ventilation openings provided by the replacement windows.

**Carparks:**

- 5.8  Where an enclosed car park is to be naturally ventilated, show ventilation openings on elevations. Clear opening size of vents and the floor area of car park to be stated:
- 5.9  Where an enclosed car park is to be mechanically ventilated, specify ventilation rates to be achieved:

**Information required in respect of Part 6: Drainage, Hygiene and Water Storage.**

**GENERAL**

- 6  State which design code (e.g. TGD 6 2014 Edition) technical guidance document has been used for the purposes of satisfying the requirements in Part 6 of the second schedule, and state all works are to be carried out in accordance with all relevant recommendations of that code / technical guidance document.

**SPECIFIC DETAILS**

**Foul Water Drainage:**

- 6.1  Drainage layout to be shown, with manhole cover and invert levels, gradients and pipe sizes stated: (Full design calculations to be provided for large schemes)
- 6.2  Invert level and location of sewer connection to be shown:
- 6.3  Where a pumped system is proposed storage capacity, number of pumps and alarm provision to be stated:

**Rainwater Drainage:**

- 6.4  Drainage lay-out and position of outfall to be shown:
- 6.5  Where it is proposed to use a soakaway to drain areas in excess of 60 square metres design calculations in accordance with the BRE digest 365 to be provided:
- 6.7  Where a pumped system is proposed storage capacity, number of pumps and alarm provision to be stated:
- 6.8  Where the proposed drainage is to an existing soakaway identify location and state capacity.

- 6.9  Where it is proposed to connect surface water drainage to a public foul or combined sewer evidence showing that agreement has been reached with TTS Department to be provided.

**Sanitary Facilities:**

- 6.10  Number and location to be indicated on plan:
- 6.11  Calculation to show how the number of WC's has been determined, to be submitted:

**Information required in respect of Part 7:  
Stairs Ramps and Protective Barriers**

**GENERAL**

- 7  State which design code (e.g. technical guidance document 7) has been used for the purposes of satisfying each of the requirements in Part 7 of the second schedule, and state all works are to be completed in accordance with all relevant recommendations of that code / technical guidance document:

**SPECIFIC DETAILS**

**Stairs, Ramps and Protective Barriers:**

- 7.1  Position of all stairs, ramps and protective barriers to be shown on plans:
- 7.2  State materials to be used for all protective barriers and that the design is to be certified under the SER scheme.
- 7.3  Section to be provided through stairs showing headroom, rise and goings. Goings for tapered treads to be dimensioned on plan. (Note: additional requirements may be made under Part 8)
- 7.4  Specify type of stair to be provided, e.g. Stair to be "institutional and assembly in accordance with the P&E TGD Part 7, or "semi-public" in accordance with BS 5395: Part 1:
- 7.5  Specify measures to be provided for guarding of stairs, landings, ramps, floors, roofs and balconies. Note: Where children under 5 years may reasonably expected to be unsupervised for short periods, (e.g. children's libraries, toy shops, fast food restaurants, and places of entertainment) the construction of any guarding should not be such that it is not readily climbable and a 100mm sphere cannot pass through any openings:

**Information required in respect of Part 8:  
Access to, and Use of Buildings.**

**GENERAL**

- 8  **Access statement.** State that the 2007 Edition of the TDG Part 8 has been used for the purposes of satisfying each of the requirements in Part 8 of the second schedule, and that works are to be carried out in accordance with all relevant recommendations of that technical guidance document. Where it is proposed to depart from any relevant provision of the TDG 8, this needs to be identified in the building specification. Reasons for departing from the guidance should also be recorded in the building specification and supporting evidence to justify the departure should be provided. See paragraph 0.23 of the TGD.

**SPECIFIC DETAILS (NEW BUILDINGS)**

**Access to the building:**

- 8.1  Show a "level approach" (at least 1500mm wide, which is clear of any parking spaces or obstructions) to the principle entrance from the site boundary and from any car parking spaces designated for disabled people. (Note If approach is less than 1800mm wide passing spaces need to be provided)

- 8.2  State gradients along a “level approach” and specify surface finishes.
- 8.3  Where site constraints exist that prevent a “level approach” being achieved show location and width of ramped access.
- 8.4  Provide section through ramp indicating landing positions, size of landings, length, gradient and rise of flights, and handrail details:
- 8.5  For long ramps and those of 3 or more flights identify position of passing places.
- 8.6  Where the total rise of a ramped access is greater than 2m, show alternative access for wheelchair users. e.g.lift.
- 8.7  Provide section through any stepped access dimensioning rise, goings, landing lengths and size and position of corduroy hazard warning surfaces.
- 8.8  Indicate size and location of all parking bays for disabled people :

### **Access into the Building:**

- 8.9  State measures to be taken to make entrance easily identified.
- 8.10  Dimension level landing area (min size 1500x1500) immediately in front of the entrance which is clear of any door swing.
- 8.11  Indicate type of weather protection to be provided at manual non- powered entrance doors.
- 8.12  Dimension clear opening width of entrance doors, and maximum height of threshold.
- 8.13  Dimension minimum zones of visibility in entrance doors, and side panels wider than 450mm.
- 8.14  State if entrance doors are powered or manual. For non-powered doors dimension minimum 300mm unobstructed space from leading edge on pull side of the door.
- 8.15  Where revolving doors are to be used show alternative type of door immediately adjacent to it.
- 8.16  Entrance lobbies to be dimensioned:

### **Horizontal and Vertical Circulation:**

- 8.17  Identify location of reception point.
- 8.18  Dimension clear manoeuvring space in front of reception desk or counter.
- 8.19  Specify height of reception counter and size of knee recess.
- 8.20  State type of hearing enhancement system to be provided at the reception point.
- 8.21  Clear opening widths of all Internal doors to be stated:
- 8.22  Dimension minimum 300mm unobstructed space next to leading edge of doors on pull side, (not required if door is power controlled, or if it serves a standard hotel bedroom)
- 8.23  Door schedule, identifying all doors and side panels that are to be fitted with vision panels, with minimum zones of visibility clearly dimensioned, to be provided.
- 8.24  Door schedule, identifying all fire doors which are to be held open by electro-magnetic device, to make access easier.
- 8.25  Clear width of corridors to be dimensioned. Passing places to be identified where width is less than 1800mm.
- 8.26  Internal lobbies to be dimensioned:



- 8.27  State type of lifting device to be provided and the floors to be served. Identify location and dimension size of lift on floor plans.
- 8.28  Identify location of stairs on plans. Dimension clear width and state rise and goings.
- 8.29  Dimension width (1500 min) and length of any ramps and specify gradient.
- 8.30  Steps to be shown in addition to ramp where change in level is more than 300mm
- 8.31  Show ramp not a single step where change in level is less than 300mm

**Audience or Spectator Seating:**

- 8.32  Show the location of wheelchair spaces in audience seating and state the number of permanent spaces and the number of those which are removable.

**Refreshment Facilities:**

- 8.33  Show location of any refreshment facility and how access is achieved to those where the floor has been raised.
- 8.34  Dimension height of bars or service counters, and shared refreshment facilities.
- 8.35  Where refreshment facilities have both internal and external seating areas state maximum height of any threshold between the two areas.

**Hotel Bedrooms and Similar Types of Sleeping Accommodation:**

- 8.36  State all bedrooms to have a visual fire alarm signal in addition to any provision made under part 2.
- 8.37  Dimension height to bottom of openable windows and window controls from finished floor.
- 8.38  Identify location of wheelchair-accessible bedrooms and provide dimensioned layout drawing.
- 8.39  State emergency assistance alarm to be provided inside wheelchair-accessible bedrooms with emergency assistance call signal which can be seen and heard outside the bedroom and at a central control point.

**Switches and Controls:**

- 8.40  Provide schedule showing heights of all switches, socket outlets and lighting controls.

**Aids to Communication:**

- 8.41  Specify the type of any hearing enhancement system to be provided.
- 8.42  Identify all rooms and spaces where a hearing enhancement system is to be installed.

**Sanitary Accommodation:**

- 8.43  At least one wheelchair-accessible unisex toilet to be shown, with size stated, at each location where sanitary facilities are provided.
- 8.44  At least one WC cubicle, that is suitable for use by ambulant disabled people, to be shown with size stated, in areas where separate sex toilet accommodation is provided.
- 8.45  Where 4 or more WC cubicles are provided in separate sex toilet accommodation, identify and dimension 1200mm wide cubicle for use by persons who need extra space. This provision should be in addition to any cubicle designed for use by ambulant disabled persons.
- 8.46  At least one wheelchair-accessible unisex toilet to be shown as close as possible to the entrance and /or waiting area of the building.

- 8.47  Where a wheelchair-accessible unisex toilet is the only toilet facility in the building show width increased from 1.5m to 2.0m
- 8.48  Show on plan that a wheelchair user does not have to travel more than 40m to reach a unisex toilet.
- 8.49  Where more than one unisex toilet is provided indicate a choice of layouts for left-hand and right-hand transfer.

#### **Wheelchair – Accessible Changing and Shower Facilities.**

- 8.50  Identify provision to be made for wheelchair users where communal shower and changing facilities are provided.
- 8.51  In sports facilities identify size and location of individual self-contained shower and changing facilities that are to be provided in addition to communal separate- sex facilities.
- 8.52  Where showers are provided in commercial developments for the benefit of staff, show at least one wheelchair-accessible shower compartment complying with diagram 23 of the TGD 8.

#### **Changing Places Sanitary Accommodation.**

- 8.53  Identify provision for CP facility.

### **SPECIFIC DETAILS (EXTENSIONS)**

**Where a building is to be extended the information listed in items 8.0 to 8.53 needs to be provided so far as it relates to the extension. In addition, the following information should also be provided**

- 8.54  Plans to show suitable independent access to the extension. This should include all information / details listed under items 8.1 to 8.8
- 8.55  If an independent access is not proposed, provide plans and details which show the existing building and the approach to it, already satisfies requirement 8.1. Alternatively, indicate on the plans the alterations to be made to the existing building to provide access through it to the extension. (All relevant information listed under items 8.1 to 8.31 to be provided)
- 8.56  Except in situations where the existing building has no WC provision, and irrespective of any requirement under Part 6, show at least one wheelchair-accessible unisex toilet in the extension. Alternatively, show that people using the extension can gain access to and use sanitary conveniences in the existing building.

### **SPECIFIC DETAILS (MATERIAL ALTERATIONS)**

- 8.57  Survey drawing to be provided showing existing provision in relation to Part 8 requirements. e.g. existing access to the building, level and type of sanitary provision, any existing lift provision, corridor / door widths etc.
- 8.58  Details of any new or altered access to be provided. This should include all relevant information listed under items 8.1 to 8.16.
- 8.59  Details of any alteration works to change the internal layout to be provided. This should include all relevant information listed under items 8.17 to 8.42.
- 8.60  Details of any new or altered sanitary provision. This should include details of how people gain access to and to use them, as well all relevant information listed under items 8.43 to 8.53.
- 8.61  Details of any new or altered lifting device to be provided.

### **SPECIFIC DETAILS (MATERIAL CHANGE OF USE)**

**Where it is proposed to change the use of a building to a hotel, guest house, an institution, a public building or a shop, the building must be upgraded, if necessary, to comply with requirement 8.1.**

- 8.62  Where the change of use applies to the whole of a building, all relevant information listed under items 8.0 to 8.53 needs to be provided.
- 8.63  Where the change of use applies to a part of a building, all relevant information listed under items 8.0 to 8.53 needs to be provided, so far as it relates to that part of the building.

### Information required in respect of Part 9: Resistance to the Passage of Sound.

- 9  State which design code (e.g. approved document E) has been used for the purposes of satisfying each of the requirements in Part 9 of the second schedule, and state all works are to be completed in accordance with all relevant recommendations of that code / technical guidance document:

### SPECIFIC DETAILS

#### Protection against sound from other parts of the building and adjoining buildings:

- 9.1  Clearly identify on the plans the position of all walls, floors and stairs that need to provide protection against sound from other parts of the building and adjoining buildings, stating sound reduction level to be achieved.
- 9.2  Provide 1:20 detailed section showing wall, floor and stair construction.
- 9.3  State sound testing to be carried out as required by the Building Control Surveyor and test results to be submitted to the Department of Planning and Building Services:

#### Protection against sound within residences etc:

- 9.4  Clearly identify on the plans the position of all walls and floors that need to provide protection against sound within residences, stating sound reduction level to be achieved.
- 9.5  Provide 1:20 detailed section showing proposed wall and floor construction.

#### Reverberation in the common internal parts of buildings containing flats or rooms for residential purposes:

- 9.6  State the materials to be provided to limit reverberation in the common internal parts of the building, and provide calculations to show the absorption area required.

#### Acoustic conditions in schools:

- 9.7  State acoustic design to be in accordance with section 1 of building bulletin 93 and test results to be submitted to the Department of Planning and Building Services.

### Information required in respect of Part 10: Glazing – Safety and Protection

### GENERAL

- 10  State which design code (e.g. technical guidance document 10) has been used for the purposes of satisfying each of the requirements in Part 10 of the second schedule, and state all works are to be completed in accordance with all relevant recommendations of that code / technical guidance document:

### Information required in respect of Part 11: Conservation of Fuel and Power

### GENERAL

- State which design code (e.g. 2016 edition technical guidance document 11.2A or 11.2B) has been used for the purposes of satisfying each of the requirements in Part 11 of the second schedule, and

- 11  state all works are to be completed in accordance with all relevant recommendations of that code / technical guidance document:

**SPECIFIC DETAILS  
(NEW BUILDINGS, AND EXTENSIONS TO EXISTING BUILDINGS WHERE THE TOTAL FLOOR AREA OF THE EXTENSION IS GREATER THAN 100 SQ.M, AND MORE THAN 25% OF THE TOTAL FLOOR AREA OF THE BUILDING BEING EXTENDED. )**

**Achieving the TER:**

- 11.1  Provide two copies of the BBL 11 Output document and accompanying schedules from the 2016 Jersey version of the UK NCM iSBEM tool.
- 11.2  Provide plans showing how the building has been zoned for the purposes of calculating the BER, with the floor area, internal wall height and width and activity assigned to each zone.
- 11.3  Dimension all storey heights on section through building.
- 11.4  Dimension structural opening sizes on elevations (height and width) for all windows and doors and state total area for all openings on each elevation on plans. Dimension rooflights and state total area on plans.
- 11.5  Specify provision to be made for measuring at least 90% of annual energy consumption for heating and lighting in the building.
- 11.6  Specify provision for separately monitoring the output of any renewable system.
- 11.7  In buildings with a total useful area greater than 1000sq.m state automatic meter reading and data collection facilities to be provided.
- 11.8  Except in cases where the total floor area is less than 500sq.m and the air permeability used in the calculation of the BER is  $15\text{m}^3/\text{h}/\text{m}^2$  or more, state air permeability standard to be achieved and that air pressure test results are to be submitted to the department at completion of the work.
- 11.9  Dimension and state internal floor area in sq.m for each floor on plans and state total floor area for all floors in the building.
- 11.10  Identify location and size of any solar energy or photovoltaic systems and wind generators on plans.
- 11.11  Provide commissioning plan for all fixed building services, identifying the systems that need to be tested and the tests that will be carried out. Where commissioning is not proposed to be undertaken for a particular service state reasons for this.

**SPECIFIC DETAILS FOR EXTENSIONS DESIGNED IN ACCORDANCE WITH TGD 11.2B**

**Fabric standards - reference method:**

- 11.12  U-values to be achieved by roofs, walls, floors, windows, doors and rooflights to be stated in  $\text{W}/\text{m}^2\text{K}$ :
- 11.13  Dimension structural opening sizes on elevations (height and width) for all windows and doors and state total area for each elevation. Dimension rooflights and state total area..
- 11.14  Dimension wall / roof sizes and provide calculation to show opening areas do not exceed the values given in Table 2 of the TGD 11.2B.

**Fabric standards – optional area-weighted method (when not following 11.12 to 11.14 above):**

- 11.15  U-values to be achieved by roofs, walls, floors, windows, doors and rooflights to be stated in  $\text{W}/\text{m}^2\text{K}$ :
- 11.16  Dimension structural opening sizes on elevations (height and width) for all windows and doors and state total area for each elevation. Dimension rooflights and state total area.
- 11.17  Dimension wall, roof and floor sizes and state total areas on plans.

- 11.18  Provide a schedule to show the limiting U-value for each element type in the extension satisfies Table 1 in TGD 11.2B
- 11.19  Provide a schedule showing the calculated area weighted U-value of all elements in the extension is no worse than the area weighted U-value calculated in accordance with paragraph 11.20 below.
- 11.20  Provide a schedule showing the area-weighted U-value for all elements in an extension of the same size and shape as the one proposed, but which complies with the U-value standards given in paragraph 3.3 of TGD 11.2B and the opening areas given in paragraph 3.4.
- 11.21  Where rooflight areas in industrial buildings are proposed to be less than that permitted in Table 2, of the TGD 11.2B details to be provided to demonstrate adequate daylighting in accordance with NARM publication 'Natural daylight design'

**Fabric standards – optional whole building calculation method (when not following 11.12 to 11.21 above)**

- 11.22  Provide calculations in accordance with Paragraph 3.9 of TGD 11.2B, together with fully dimensioned drawings and details of U-values achieved by new and existing constructions.

**General information to be provided in addition to that listed in 11.12 to 11.22 above.**

- 11.23  Specify proposals to achieve continuity of insulation and air tightness. ( See paragraph 4.7 of the TGD 11.2B)
- 11.24  Where the extension is a conservatory show how thermal separation is achieved between it and the existing building and proposals in respect of any space heating.
- 11.25  State lighting efficacy and controls to satisfy recommendations given in Table 42 of the Non-Domestic Building Services Guide.
- 11.26  Specify provision to be made for metering of annual energy consumption for heating and lighting in the extension.
- 11.27  Provide commissioning plan for all fixed building services, identifying the systems that need to be tested and the tests that will be carried out. Where commissioning is not proposed to be undertaken for a particular service state reasons for this.

**SPECIFIC DETAILS (MATERIAL CHANGE OF USE AND CHANGE OF ENERGY STATUS)**

**Work on thermal elements and replacement or extension of controlled services or fittings:**

- 11.28  Identify all new or altered building services and state work is to be carried out in accordance with the 2013 Edition of the HM Government Non-Domestic Building Services Compliance Guide.
- 11.29  State fuel type and efficiency to be achieved by any new heat-raising appliance.
- 11.30  State fuel type and efficiency for any new cooling plant, and the upgrading measures to be undertaken to the building to reduce cooling loads.
- 11.31  State U-values to be achieved by all thermal elements, including those which are to be newly provided, retained and renovated.
- 11.32  State U-values to be achieved by all new windows, doors and rooflights
- 11.33  State U-values to be achieved by existing windows, doors and rooflights which separate a conditioned space from an unconditioned space.
- 11.34  State any newly provided fixed lighting to satisfy recommendations given in Section 12 of the Non-Domestic Building Services Guide.
- 11.35  Specify type of lighting controls to be used and provide a schedule identifying switch location and distance from the switch to the luminaire it controls.

- 11.36  Specify provision to be made in respect of energy metering.
- 11.37  Provide commissioning plan for all fixed building services, identifying the systems that need to be tested and the tests that will be carried out. Where commissioning is not proposed to be undertaken for a particular service state reasons for this.

### SPECIFIC DETAILS ( MATERIAL ALTERATIONS and PROVISION OF CONTROLLED SERVICES AND FITTINGS)

- 11.38  State U-values to be achieved by newly provided or renovated thermal elements.
- 11.39  Identify all new or altered building services and state work is to be carried out in accordance with the 2013 Edition of the HM Government Non-Domestic Building Services Compliance Guide.
- 11.40  State fuel type and efficiency to be achieved by any new heat-raising appliance.
- 11.41  State fuel type and efficiency for any new cooling plant, and the upgrading measures to be undertaken to the building to reduce cooling loads.
- 11.42  State U-values to be achieved by all new windows, doors and rooflights
- 11.43  State any newly provided fixed lighting to satisfy recommendations given in Section 12 of the Non-Domestic Building Services Guide.
- 11.44  Specify type of lighting controls to be used and provide a schedule identifying switch location and distance from the switch to the luminaire it controls.
- 11.45  Specify provision to be made in respect of energy meters.
- 11.46  Provide commissioning plan for all fixed building services, identifying the systems that need to be tested and the tests that will be carried out. Where commissioning is not proposed to be undertaken for a particular service state reasons for this.

### SPECIFIC DETAILS (CONSEQUENTIAL IMPROVEMENTS)

#### Extensions:

- 11.47  State which of the improvement in Table 6 of TGD 11.2b are to be undertaken as part of the principal works
- 11.48  Provide detailed specification for the work identified in 11.47 above.

#### Installing new building services or increasing capacity of an existing service:

- 11.49  Identify improvements to be made to the part of the building where the service is to be installed.
- 11.50  Provide detailed specification for the work identified in 11.49 above.

#### Increasing capacity of an existing heating system:

- 11.51  Specify construction of existing thermal elements within the area served and provide details for upgrading where U-values are worse than those set out in column (a) of Table 5 in TGD 11.2B.
- 11.52  Specify U-values achieved by existing windows, rooflights and doors within the area served by the heating system and provide specification for replacement of all windows, rooflights and doors that have U-values worse than  $3.3\text{W/m}^2\text{K}$

#### Increasing capacity of an existing cooling system:

- 11.53  Specify construction of existing thermal elements within the area served, and provide details for upgrading where U-values are worse than those set out in column (a) of Table 5 in TGD 11.2B.
- 11.54  Provide a plan showing the area of windows and rooflights serving the area.
- 11.55  Where the area of windows exceeds 40% of the façade area, or the area of rooflights exceed 20% of the roof area, and the design solar load exceeds  $25\text{W/m}^2$  provide details of how the solar control provisions are to be upgraded to achieve standard given in paragraph 5.11 of the TGD 11.2B.

## Information required in respect of Part 12: Electrical Safety

### GENERAL

- 12  State which design code (e.g. technical guidance document 12) has been used for the purposes of satisfying each of the requirements in Part 12 of the second schedule, and state all works are to be completed in accordance with all relevant recommendations of that code / technical guidance document: