Mat 1 Environmental impact of materials

7 of 15 credits achieved

Credit criteria

There is a mandatory requirement with no available credits to achieve a Green Guide rating of between A+ and D for at least three of the following five elements of the building envelope:

- Roof
- External Walls
- Internal Walls (including separating walls)
- Upper and Ground Floors (including separating floors)
- Windows

Credit validation

A sufficient percentage of materials will be specified based on the approved green guide 2008 ratings to achieve 7 credits according to the Code Mat 1 Calculator Tool.

Credit references

Assumption by Lugus Engineering.

Further information/action

Between 1 and 15 credits are available depending on the Green Guide ratings and relative distributions of different materials across the five main elements of the building envelope. The method for determining the credits to award for any given situation is described in the calculation procedure below.

	Credits	Mandatory Levels
Where at least three of the following five key elements achieve a relevant Green Guide rating from the 2008 version of The Green Guide of A+ to D: • Roof • External Walls • Internal Walls (including separating walls) • Upper and Ground Floors (including separating floors) • Windows		All levels
Where the Code Mat 1 Calculator Tool is used to assess the number of credits awarded for the five key elements described above.	1-15	

The Green Guide:
This is a rating system for the embodied environmental impacts of construction products and materials. It is based on extensive quantitative data for materials, which has been translated into simple environmental profiles for building elements. An A+ to E rating represents the assessed life cycle environmental impact, with A+ rated specifications having the lowest overall environmental impact. It is used to assess the major building elements.

Code Mat 1 Calculator Tool:
This is a tool developed for calculating the credit score for this issue.

Mat 2	Responsible sourcing of materials – basic building elements	3 of 6 credits achieved

Credit criteria

Points are awarded where materials used in key building elements are responsibly sourced.

Credit validation

80% of the basic building materials will be responsibly sourced to achieve 3 credits according to the Code Mat 2 Calculator Tool.

Credit references

Confirmation given by Ramsden and Partners.

Further information/action

Points are awarded according to the following criteria:

	Credits
Where 80% of the assessed materials in the following Building Elements are responsibly sourced: a) Frame b) Ground floor c) Upper floors (including separating floors) d) Roof e) External walls f) Internal walls (including separating walls) g) Foundation/substructure (excluding sub-base materials) h) Staircase Additionally, 100% of any timber in these elements must be legally sourced.	1-6

Code Mat 2 Calculator Tool:
A spreadsheet-based tool designed to simplify assessment of this issue. Available to assessors from the Code Service Provider.

Mat 3	Responsible sourcing of materials – finishing elements	1 of 3 credits achieved

Credit criteria

Points are awarded where materials used in finishing elements are responsibly sourced.

Credit validation

80% of the finishing elements will be responsibly sourced to achieve 1 credit according to the Code Mat 3 Calculator Tool.

Credit references

Confirmation given by Ramsden and Partners.

Further information/action

Credits are awarded on the basis of the requirements in the table below:

	Credits
Where 80% of the assessed materials in the following Finishing Elements are responsibly sourced: a) Stair b) Window c) External & internal door d) Skirting e) Panelling f) Furniture g) Fascias h) Any other significant use Additionally, 100% of any timber in these elements must be legally sourced.	1-3

Surface Water Run-off

The following table summarises the credits awarded for this section.

The Code Credit Reference	Number of Credits Achieved	Number of Credits Available
Sur 1 - Management of surface water run-off from developments	1	2
Sur 2 - Flood Risk	2	2
TOTAL CREDITS	3	4

Sur 1	Management of surface water run-off from developments	1 of 2 credits achieved

Credit criteria

Mandatory Elements must be achieved for all levels. Up to 2 credits are available for further improving management of rainfall runoff.

Credit validation

Sustainable Drainage Systems (SUDS) will be specified to reduce water run-off.

Credit references

Confirmation given by Ramsden and Partners.

Further information/action

	Credits	Mandatory Levels
Peak Rate of Runoff Ensure that the peak rate of runoff into watercourses is no greater for the developed site than it was for the pre- development site (see definition). This should comply with the Interim Code of Practice for Sustainable Drainage systems (SUDS) (CIRIA, 2004), or for at least the 1 year and 100 year return period events. For sites of less than 200ha, the calculation of Greenfield runoff rates should be in accordance with Flood estimation for small catchments (Marshall and Bayliss, 1994) and any subsequent updates. For sites of 200ha and more, the calculation of Greenfield runoff rates should be in accordance with the Flood estimation handbook (Centre for ecology and hydrology, 1999) and any subsequent updates. An allowance for climate change should be made in accordance with current best practice (PPS25, 2006). **Volume of Runoff** Ensure that the additional predicted volume of rainwater discharge caused by the new development, for a 1 in 100 year event of 6 hour duration including an allowance for climate change (PPS25, 2006), should be reduced using infiltration and/or made available for use in the dwelling as a replacement for potable water use in non-potable applications such as WC flushing or washing machine operation. Where this additional rainwater volume cannot be prevented from being discharged for any reason, for all events up to the 100-year return period, the peak discharge rate from the site should be reduced to: • the pre-development site's estimated mean annual flood flow rate (Qbar); or • 2l/s/ha;or	none	All levels

• A minimum flow rate (litres per second), based on good practice guidelines to prevent easy blockage, by ensuring the outlet throttle is not too small. If rainwater is discharged to a public sewer or adopted surface water sewer, flow rate requirements will be defined by the Sewerage undertaker.		
2 credits are available for using SUDS to improve water quality of the rainwater discharged or for protecting the quality of the receiving waters by: 1. Ensuring no discharge to the watercourse for rainfall depths up to 5mm (follow guidance in the Interim Code of Practice for Sustainable Drainage systems (SUDS) (CIRIA, 2004). or 2. Establish agreements for the ownership, long term operation and maintenance of all sustainable drainage elements used.	2	
Default Cases: Credits can be awarded by default if the site discharges rainwater directly to a tidal estuary or the sea, because compliance with discharge flow rate requirements will not be required.		

Peak runoff rate:
Referred to as Qp [m^3/sec].
It is the highest rate of flow from a defined catchment area assuming that rainfall is uniformly distributed over the drainage area, considering the entire drainage area as a single unit and estimation of flow at the most downstream point only.

Sur 2 Flood risk	2 of 2 credits achieved

Credit criteria

Up to 2 credits are awarded where the assessed dwelling is located either in an area of low annual probability of flooding, or where a Flood Risk Assessment (FRA) shows that appropriate measures have been taken to ensure safe access and escape routes and flood resilient and resistant construction.

Credit validation

Development in area of low annual probability of flooding.

Credit references

Assumption based on information obtained from Camden Council Website.

Further information/action

	Credits
EITHER 2 credits are available for developments situated in Zone 1 – low annual probability of flooding (as defined in PPS25 – 'Planning and Flood Risk') and where the site specific Flood Risk Assessment (FRA) indicates that there is low risk of flooding from all sources.	2
OR 1 credit is available for developments situated in Zones 2 and 3a – medium and high annual probability of flooding where the finished ground floor level of all habitable parts of dwellings and access routes to the ground level and the site, are placed at least 600mm above the design flood level of the flood zone. The Flood Risk Assessment (FRA) accompanying the planning application must demonstrate to the satisfaction of the local planning authority and statutory body that the development is appropriately flood resilient and resistant, including safe access and escape routes where required, and that any residual risk can be safely managed.	1

Low annual probability of flooding (Zone 1):
Low annual probability of flooding is an area where the chance of both river and sea flooding each year is <0.1% (1 in 1000) or less.

Medium annual probability of flooding *(Zone 2):*
An area where the chance of river flooding in any year is 1% (1 in 100) or less but greater than 0.1% (1 in 1000) and between a 1 in 200 and 1 in 1000 chance of sea flooding (0.5% – 0.1%).

High annual probability of flooding (Zone 3a):
An area where the chance of river flooding in any year is > 1% (1 in 100) and a 1 in 200 or greater chance of flooding from the sea (>0.5%).

Waste

The following table summarises the credits awarded for this section.

The Code Credit Reference	Number of Credits Achieved	Number of Credits Available
Was 1 - Storage of non-recyclable waste and household waste	4	4
Was 2 - Construction Site Waste Management	2	2
Was 3 - Composting	1	1
TOTAL CREDITS	7	7

Wst 1	Storage of non-recyclable waste and household	4 of 4 credits achieved

Credit criteria

The first issue of household waste storage sets a mandatory performance requirement with no available credits. This requirement must be met if a Code rating is to be achieved. Adequate internal space and adequate external space are defined in the definitions section.

Credits are awarded for the provision of storage space for household and recycling waste. Care should be taken to make sure that facilities are accessible to disabled people.

Credit validation

There is a Local Authority Collection Scheme and internal waste storage bins will be provided.

Credit references

Assumption based on drawings provided by Ramsden and Partners and information obtained from Camden Council Website.

Further information/action

Credits are awarded, in accordance with the criteria below.

	Credits	Mandatory Levels
Storage of household waste The space allocated for waste storage should be able to accommodate containers with at least the minimum volume recommended by British Standard 5906 (British Standards, 2005) based on a maximum collection frequency of once per week. This is 100 litres volume for a single bedroom dwelling, with a further 70 litres volume for each additional bedroom. A Local Authority recycling scheme offering containers equal to or greater than this volume would meet the requirement, providing adequate external space is allocated to accommodate them. If the Local Authority provides containers with a smaller volume, or if no Local Authority scheme exists, the developer will need to ensure and demonstrate that the minimum volume according to BS 5906 2005 and defined above is met. All containers must be accessible to disabled people (checklist Was 1), particularly wheelchair users, and sited on a hard, level surface. To ensure easy access, the containers must not be stacked.	none	All levels
Storage of recyclable household waste Dedicated internal storage for recyclable household waste can be credited where there is no (or insufficient) dedicated external storage capacity for recyclable material, no Local Authority collection scheme and where the following criteria are met: At least, three internal storage bins: • all located in an adequate internal space • no individual bin smaller than 15 litres	2	

• with a minimum total capacity 60 litres		
A combination of internal storage capacity provided in an adequate internal space, with either: • a Local Authority collection scheme; or • No Local Authority collection scheme but adequate external storage capacity. **Local Authority Collection Scheme** In addition to a Local Authority Collection Scheme (with a collection frequency of at least fortnightly) at least one of the following requirements must be met: • Where recyclable household waste is sorted **after** collection and at least a single 30 litre bin is provided in an adequate internal space. • Where materials are sorted **before** collection and at least three separate bins are provided with 30 litres total capacity. Every bin must have a capacity of at least 7 litres and be located in an adequate internal space. • An automated waste collection system which collects at least 3 different types of recyclable waste. **No Local Authority collection scheme but adequate external storage Capacity** **For houses and flats**, there must be at least 3 identifiably different **internal** storage bins for recyclable waste, located in an adequate internal space: • with a minimum total capacity of 30 litres • where every bin has at least 7 litres capacity **AND** **For houses**, an adequate **external** space must be provided for storing, at least, three external bins for recyclable waste: • with a minimum total capacity of 180 litres • with no bin smaller than 40 litres • all bins should be located within 30m2 of an external door For **blocks of flats**, a private recycling scheme operator must be appointed to maintain bins and collect recyclable waste regularly. Recycling containers must: • be located in an adequate **external** space. • be sized according to the frequency of collection, based on guidance from the recycling scheme operator. • store at least 3 types of recyclable waste in identifiably different bins. • be located within 30m2 of an external door. * Where strategic reasons outside the control of the developer make it impossible to meet this requirement, the maximum allowable distance is 50m, and a written justification must be provided to the Code Service Provider.	4	

Wst 2 Construction Site Waste Management

2 of 2 credits achieved

Credit criteria

Management of waste on the construction site must comply with the criteria presented in the table below.

Credit validation

The amount of waste generated on site will be within the requirements to achieve two credits, and this waste will be diverted from landfill by reusing or recycling.

Credit references

Confirmation given by Ramsden and Partners.

Further information/action

	Credits	Mandatory Levels
Mandatory Element: Site Waste Management A Site Waste Management Plan must be developed and implemented. This will require: Monitoring and reporting of waste generated on site in defined waste groups, and compliance with legal requirements as set in SWMP regulations 2008 for and with best practice. The plan should include the setting of targets to promote resource efficiency in accordance with guidance from WRAP, Envirowise, BRE and DEFRA. Specific quantitative targets are not set within this Technical Guidance. It is the responsibility of the client and/or the principal contractor (as defined by the SWMP regulations 2008) to ensure that appropriate targets are set for the site.		All levels
Default Cases For a development where the cost of construction is less than £300,000, this element will be awarded by default.		
Minimising Construction Waste The Site Waste Management Plan must include procedures and commitments for reducing waste generated on site in accordance with best practice and the defined waste groups.	1	
AND The Site Waste Management Plan must include procedures and commitments to sort and divert waste from landfill (reuse, recycle, compost or otherwise recover) according to the defined waste groups. This must be performed either on site or through a licensed external contractor, in accordance with best practice.	1	