



LINCS BUILDING
CONSULTANCY

Guidance Note No. 36

Radon Protection within
East Lindsey District

Radon is a colourless, odourless and radioactive gas. It is formed where uranium and radium are present and can move through cracks and fissures in the subsoil, and so into the atmosphere or into spaces under and in dwellings.

Whilst it is recognised that the air inside every house contains radon, some built in certain defined areas of the district might have unacceptably high concentrations unless precautions are taken.

From the 14th February 2000 Agents, developers and people building in the East Lindsey area have had to consider the need to reduce the risk of exposure to radon to the occupants of those buildings.

New guidance from the Department of the Environment, Transport and the Regions, following advice provided to them by the National Radiology Protection Board, have shown that areas of East Lindsey have concentrations of radon which pose a risk to health.

With this in mind, designers will be required to show how their proposals will comply with Approved Document C Requirement C2.

The requirement of C1. (2) of the Building regulations 2004 states that "*Reasonable precaution should be taken to avoid danger to health and safety caused by contaminants on or in the ground covered, or to be covered by the building and any land associated with the building*".

The following guidance is specifically aimed at new buildings and extensions.

Guidance for non-domestic buildings is specified in the Ionising Radiations Regulations 1999, legislation made under the Health and Safety at Work Act and administered by the Health and Safety Executive.

There are two main methods of achieving radon protection in new buildings, passive and active.

The passive system involves providing a barrier to the radon.

The active system consists of providing natural or mechanical under floor ventilation or a powered radon extraction system, as an integrated part of the services of the building.

There are two different levels of protection that may be required, Basic Radon Protection and Full Radon Protection.

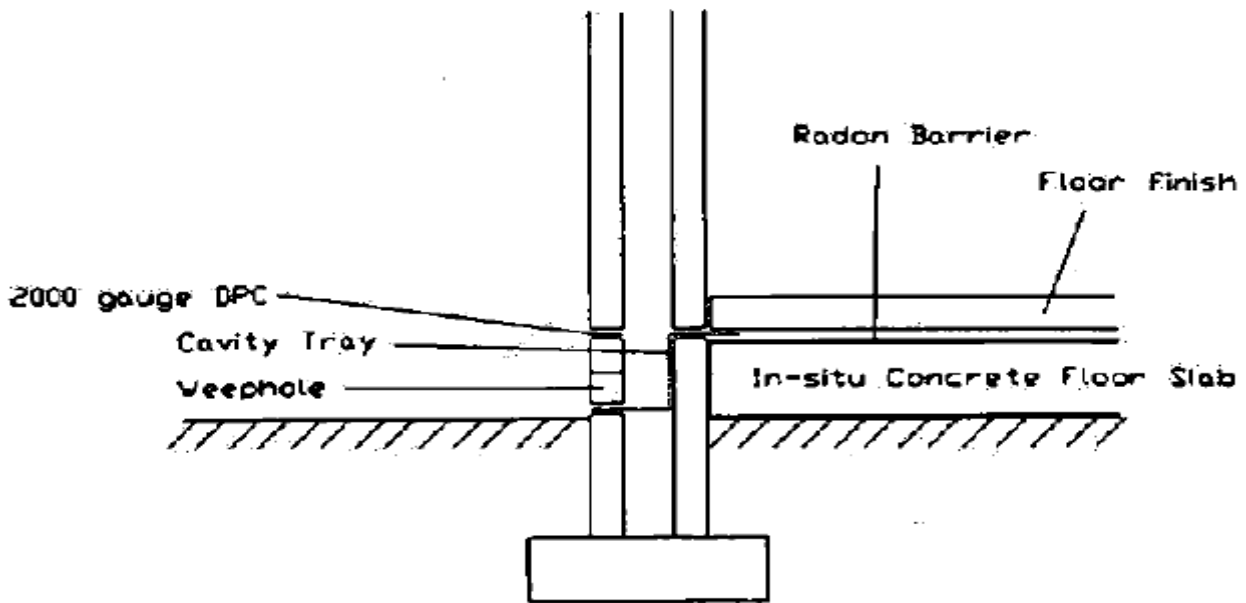
The enclosed information sheet shows the Parishes in East Lindsey where it is known it will be necessary to provide Basic or Full Radon Protection. This protection can be achieved by following the constructional detailing in the attached sketches.

An alternative to using these details is to carry out a geographical assessment of the site, this can be carried out by the British Geological Survey. Other sources may in the future also provide this surface. It is the applicant's responsibility to provide information indicating the level of protection, if any is required.

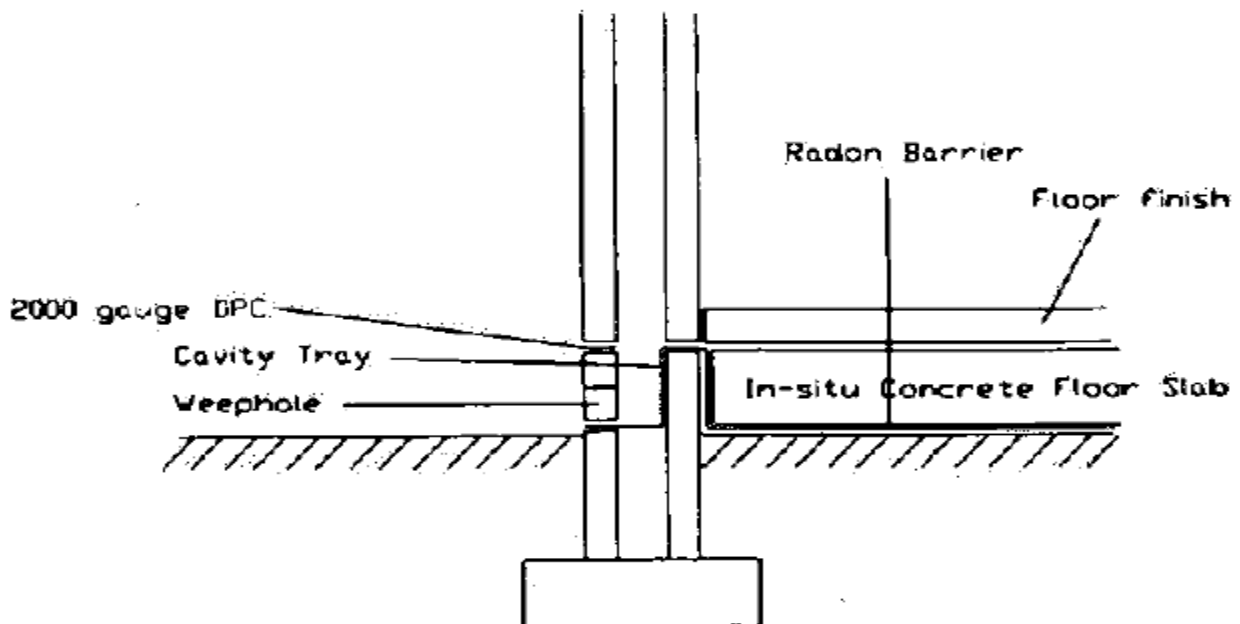
PARISH	BASIC	PARISH	BASIC
Asterby	X	Hameringham	X
Belchford	X	High Toynton	X
Binbrook	X	Low Toynton	X
Brinkhill	X	LUdford	X
Burgh on Bain	X	Lusby with Winceby	X
Donington on Bain	X	Mareham on the Hill	X
Fulletby	X	South Ormsby cum Ketsby	X
Gayton le Wold	X	South Willingham	X
Goulceby	X	Stenigot	X
Greetham	X	Tetford	X
Hagworthingham	X		
Hainton	X		

Basic Protection Details

Below are standard construction details, which can be used to provide basic radon protection. Basic protection can be achieved using 1200gauge damp proof membrane. If full radon protection is required see overleaf.



Radon Barrier above Floor Slab



Radon Barrier below Floor Slab

Notes:

Additional information and guidance, together with a geological assessment, for the proposed site can be obtained from the British Geological Survey, Keyworth, Nottingham. NG12 5GG Telephone 0115 9363143.

Membranes should be jointed with suitable adhesive tape or self-adhesive synthetic rubber strip sealant. Attention to good detailing and workmanship is essential to provide an effective gas tight seal.

Wherever possible, service entries through the floor slab should be avoided, careful design can result in a minimum penetration through the slab.

Consideration should be given to partitions built off the slab and internal walls with their own foundations. It may be convenient to utilise a 600mm wide strip of membrane, which can be lapped and sealed to the main membrane before screeding. Care should be taken to block up the voids in the fill and sump when blinding the floor prior to barrier placement.

References:

BR211 Radon: Guidance on protection Measures for New Dwellings.
Good Building Guide 25: Buildings and Radon.



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If you would like to receive this information in another language or in another format, such as large print, Braille or on an audio tape, please contact Administration at either of the offices shown above.

Please note that these guidance notes are for advice only and may not cover all situations. It is your responsibility to ensure that they are appropriate for use in your particular circumstances.