

TECHNICAL GUIDANCE

COMPARTMENT WALLS BETWEEN GARAGES

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QUESTION

With regard to fire protection and security, how should the compartment walls be constructed between private garages in garage blocks with pitched roofs?

CONSIDERATIONS

- Approved Document B (England), Approved Document B (Wales), Technical Handbook - Domestic 2 Fire (Scotland) and Building Regulations Part E (Northern Ireland) refer to 60 - minutes fire protection for compartment walls between buildings.
- 30 - minutes fire protection is considered sufficient between private garages and may be achieved by providing a ceiling to the underside of the roof structure, or by extending the compartment walls to the underside of the roof covering.
- The ceiling or compartment walls between roofs should be constructed to provide reasonable security against break-ins from adjoining garages.

ANSWER

1 Fire protection

Fire protection may be provided by the compartment walls, as shown in figure 1, or by use of a fire-rated ceiling, as shown in figure 2.

2 Security

It is considered that the following should provide adequate security:

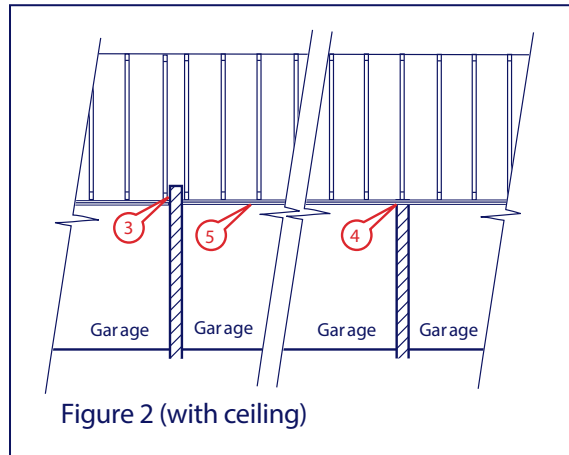
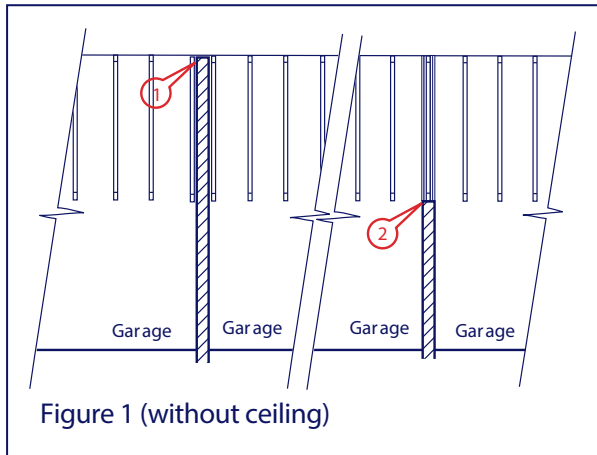
- Walls - masonry construction or timber frame with two layers of plasterboard on each side.
- Ceilings - two layers of plasterboard

3 Pairs of detached garages

Fire protection is optional between pairs of private garages when their combined floor area is less than 30 m² and their construction is of substantially non-combustible materials e.g. slate, concrete or clay roof tiles and external masonry walls.

Security is still required, as described above, by use of two layers of plasterboard or one layer of plywood or OSB with minimum thickness of 6mm or 9mm respectively applied to both sides of the compartment wall.

Amended



1. Masonry compartment wall extended to roof line and fire stopped above and below roof underlay.
2. Alternative construction - masonry compartment wall extended to underside of roof trusses with timber frame spandrel infill above. Infill clad both side with two layers of plastered. Fire stopped above and below roof underlay and at junction with top of wall.
Note: for pairs of garages the two layers of plasterboard may be substitute with one layer of plywood or OSB, minimum thickness 6mm and 9mm respectively, applied both sides of the wall.
3. Masonry compartment wall extended above plasterboard ceiling with plasterboard butted tight to face of wall. Sealed to wall with intumescent sealant.
4. Alternative construction - plasterboard ceiling continued across party line with masonry compartment wall built up tight to underside of plasterboard. Sealed to plasterboard with intumescent sealant.
5. Ceiling constructed to provide 30 - minutes fire protection.
e.g. two layers of 12.5mm plasterboard on timber joists (minimum 38mm wide) or bottom cord of trusses (minimum 35 mm wide) at maximum 600 mm centres with an overlay of quilt.
or,
two layers of 12.5mm Type F fire resistant plasterboard with taped and jointed or plaster skim finish, on joists (minimum 42mm wide) or bottom cord of trusses (minimum 42mm wide) at maximum 600mm centres without an overlay of quilt.

Amended