

GUIDANCE NOTES

Produced by

**Tendring District Council
Building Control Service
Weeley**



REMOVING A CHIMNEY

INTRODUCTION

Most older houses were constructed with fireplaces in every room to provide heat. These days central heating has replaced the need for fireplaces and the chimney breast is seen as wasted floor space in the room.

Although a fireplace does provide a focal point in the room, the removal of the fireplace and the chimney can increase the size of the room significantly. But the chimney is part of the structure of the house and its removal should be carefully considered before any work is carried out.

The works must comply with the Building Regulations 2010. A Building Regulation application is required. Forms to make a submission can be downloaded from the website [here](#)

Where the chimney is part of the party wall between two properties, the Party Wall etc Act 1996 places certain burdens on the person intending to carry out the work. The Party Wall etc Act cannot be enforced by the Local Authority. Advice should be sought from a suitably qualified Surveyor or legal expert.

The details that follow are not the only way of adequately supporting a partially removed chimney, but are intended to give you options regarding carrying out the work so that it complies with the Building Regulations. A structural engineer should be contacted to give advice on the correct design for your building.

CAN THE CHIMNEY BE REMOVED?

If you want to remove a chimney breast in a ground or first floor room you must first support the remaining chimney adequately. A structural engineer should be contacted to give advice on the correct design for your building. It is not satisfactory to corbel the brickwork below the remaining chimney stack. It must be properly supported at all times.

SUPPORT

The preferred method of supporting a stack is to use a steel beam supported on suitable load bearing walls. Where this is not possible an alternative method of support may be by the use of brackets, commonly referred to as gallows brackets. There are restrictions which apply to the use of gallows brackets and these are detailed below.

Steel beams should be designed by a structural engineer. A structural engineer should **always** be consulted regardless of the support method where large stacks are being removed.

Timber beams and corbelled brickwork are not considered satisfactory in any circumstances.

Where hearths and breasts are being removed it is often necessary to insert replacement floor/ceiling joists. It is essential that they are of an adequate size.

UNDER WHAT CIRCUMSTANCES MIGHT GALLOWS BRACKETS BE AN ACCEPTABLE METHOD OF SUPPORT?

Gallows brackets are only suitable in certain situations. It is recommended that they are not to be used if the brickwork to which they will be attached is bonded together with lime mortar. The brickwork and the mortar joints will also need to be in a very good condition if gallows brackets are to be used, i.e. not dry and crumbly.

Gallows brackets should only be used on walls that are a minimum of 225mm thick. The projection of the breast should be no more than 340mm.

The stack itself should not be completely vertical (i.e. a gathered flue to a central stack). This is to allow some of the loads to be supported by the remaining parts of the chimney.

The chimney is in a house of no more than two storeys.

If the neighbouring property has had their adjacent chimney breast removed previously, or partially removed and gallows brackets used, then gallows brackets will not be acceptable for removal of the chimney breast. A steel beam support will then be required.

STABILITY OF WALLS

Where a chimney stack on an external wall is partly removed, i.e. on the end house of a terrace, the minimum height of the chimney breast remaining below the roof line must be equal to or greater than the height of the stack above the roof. Ideally the chimney stack should be reduced to be no more than 1 metre above the highest point of where the stack emerges from the roof, but check with your planning officer first, as to do so may require planning permission.

Where a stack forms a buttress, the wall must be checked for stability by a structural engineer. This will apply where the chimney is a long wall without another brick wall at 90 degrees to it, other than any returning external walls. In the case of a two storey building the wall must not exceed 9 metres without a buttress, and in the case of a single storey building 12 metres.

FIRE RESISTANCE

All supporting steelwork should be provided with adequate protection from fire. This may be by the use of plasterboard or an intumescent paint system. Generally a period of thirty minutes fire resistance is required, however for a chimney on a party/separating wall this should be increased to sixty minutes. Where intumescent paint is not being used the steel should be given at least one coat of anti-corrosion paint.

VENTILATION

The remaining sections of flues within the chimney should be adequately ventilated to prevent condensation forming within the construction and to allow any rain penetration to dry out.

MAINTENANCE OF NEIGHBOURS CHIMNEY

If separation between flues is damaged carbon monoxide / dioxide poisoning could result from the neighbour's flues. All damaged / poor brickwork should be replaced and repointed and if possible a smoke test carried out on the



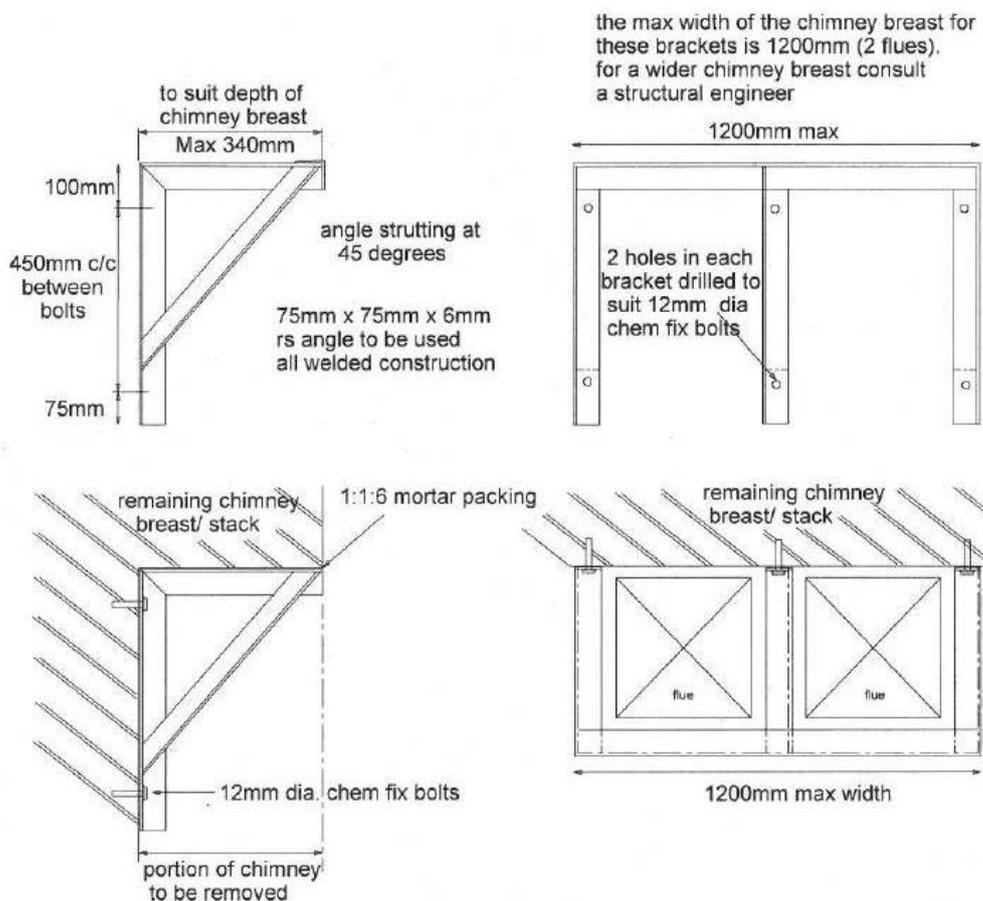
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neighbour's flue to check for any leakage (flue test to be done by registered competent person or witnessed by a Building Control Surveyor).

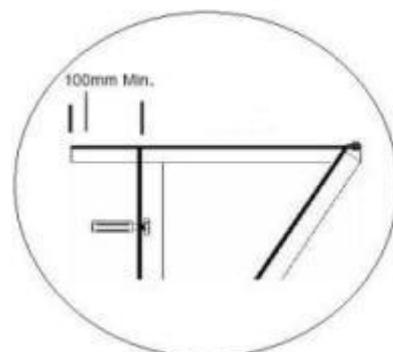
CONSTRUCTING AND FIXING A GALLOWS BRACKET

The sizes and fixings are detailed below. Normally two brackets should be provided per stack, but wider stacks may demand three. Check with your engineer. The stack above the brackets should be supported by way of a steel plate with a minimum thickness of 10mm. In order to harden up between the plate and the underside of the stack a 25mm gap should be formed. This is then filled with well rammed semi-dry cement/sand. Failure to properly harden up the stack will result in movement and/or cracking with possible severe consequences.

Please note that the bolt fixings are to be drilled into sound brickwork, not mortar joints.



It is recommended that the top member of the gallows bracket is extended by 100mm in order that it can be built into the existing brickwork.



Before your builder starts the work please ask him to fill in the following check list.

	YES	NO
Are the bricks laid in lime mortar?		
Is the brickwork in poor condition?		
Is the supporting wall less than 225mm thick?		
Does the chimney stack project more than 340mm?		
Is the stack only partially bonded to the supporting wall?		
Has the neighbour's part of the stack already been removed?		
Will there be more brickwork left above the roof than below?		
Is the house more than two storeys high?		
Is the stack vertical without loads being shared?		
Does the stack buttress the supporting wall?		

If the answer to any of these questions is YES then gallows brackets should not be used.

Please contact a structural engineer for advice.

Remember, a Building Regulation application MUST be submitted for the partial removal of a chimney stack.

**For More Information please call
Tendring Building Control
01255 686131**

or alternatively call into our offices in Thorpe Road Weeley.

Other guidance leaflets can be downloaded from our website

[LINK TO WEBSITE GUIDE PAGE](#)

