**IDENTIFYING RISKS**

 **A. Plan and prepare prior to propping to prevent poor performance. Look at all of the options available, including the option of removing the masonry above a proposed opening, especially if in poor condition which will reduce all of the hazards connected to temporary masonry support and will also increase long term stability of the structure.**



**B. Know and perform your legal responsibilities and duties of care to the workforce, the public & to your clients. It is the legal duty of the designated designer to identify and to control all of the risks involved within a project.**

**C. Ensure that all of the workforce involved understand the sequence of works and the correct procedures, ensuring nothing is lost in translation with foreign language speaking work colleagues or a work mate with communication difficulties.**

**D. Fully understand the capabilities of temporary masonry support equipment before using to ensure the equipment safely offers the correct working/fitting access without overloading the structure above and is the most suitable for the task. As every project is different each task must be planned upon its own merit. Do not recommend equipment on a whim or comment on a project until knowing all of the information required to discuss and to plan correctly within accordance of the specific task.**

**E. Never rush masonry alterations, gain the ability to price a project correctly which reduces haste during the task; over price if necessary but never under-price. Altering masonry is not a task to attempt to claw back revenue from other task losses.**

**F. Understand the importance of a load-point and to know the weights and loads of a structure that require temporary support. Fully understand how masonry acts above an opening & why masonry collapses to prevent it from happening; reduce the risk of collapse by gaining the knowledge of knowing how to stabilise a structure.**

**G. Wear the correct protective clothing/PPE for head, eyes, mouth, hands and feet and carry out tasks at height within the working at height regulations.**

**H. Do not weaken the integrity of a structure. Example; cutting exterior brickwork upon an existing property to continue a cavity to a new extension. Remedy; stop cavity cut outs below a proposed opening until the permanent support is in place. Ensure further structural stability by carrying out repairs and remedial works when necessary. Remove or redirect soil/waste pipes and fill in any missing vents, masonry voids and existing cracks before any alterations take place.**

**I. Understand that all existing propping methods not only weaken a structure when fitting they also rely upon this weakened and the unknown lateral strength to work correctly. Do not de-stabilise a structure through vibration with large hammers; stitch drill mortar beds & joints to remove brickwork and/or to fit tongues which also reduces carcinogenic dust particles. Drill easy to fill diamond core holes for needles to minimise instability which will also reduce internal wall damage within finished rooms upon floors above.**

**J. It is most important to fully understand the dangerous relationship between the unknown & variable safe working load of the different heights of the different sized Acrow props and the further decreasing working load of increased distance from wall to prop when eccentrically propping with tongued attachments.**

**K. Do not use the last 100mm of the tongue of a traditional prop attachment unless also bracing a brick structure, as the variable working load is less than 200Kg and is not safe as the bendable tongues and different torques on Acrow props can distort & destabilise a structure.**

#### **L**. **Without any warning a tongued prop attachment dangerously misuses an Acrow prop by changing the direction of the load onto the side of the Acrow props inner tube of which is designed only for vertical loads from head plate down to the foot plate. To reduce the high risk of curving the inner tube which is peppered with 14mm pin holes, select the most suitable sized Acrow prop for the height of the task that allows the inner tube to extend no more than half way from the outer tube.**

**M. Understand that the different masonry alteration scenarios require the use of a variety or a combination of temporary support equipment in the same manner that a variety of different hammers, saws and trowels are used for different tasks. The equipment used should not only hold up masonry but also stabilise a structure, support all of the un-held masonry (to avoid injury from falling debris) and of which gives sufficient working/fitting access for the specific task.**

**N. To have the ability to read and fully understand drawings; Structural engineers and architects are legally permitted to make assumptions to reduce costs from further site visits. Be aware that it’s the builder’s duty to check all measurements on site and to ensure all generic assumptions within drawings and of temporary support designs are correct before permanent supports are fabricated and prior to any alterations taking place.**

**O. To have the ability to discuss and to question a structural engineer’s design and/or choice of temporary support equipment in a polite manner when recognised that not most suitable. Ensure the variable working loads of the equipment calculated isn’t just another generic assumption.**

### P. ****It is not possible to calculate the lateral strength of masonry unless correctly using the fully tested Brick Brace. Without the Brick Brace the stability is unpredictable & will vary upon every structure of which depends upon the length of the opening, the mortar mix (cement or lime), the age & the quality of the masonry workmanship. Be aware that lime mortar masonry has very little lateral strength, if any.**** Do not rely solely on propping methods just because they worked on the last project as the next task could be totally different. Do not take short cuts, ensure future generations are shown the correct way and not taught the same bad habits as past generations due to a lack of correct guidance.

###

**Q. To have the ability to read and understand temporary masonry support equipment instructions before using or to listen and to understand when verbally read out by someone.**

**R. To have the ability to carry out a task within the instructions without assuming correct use and to understand that when warnings are not in place due to Caveat emptor the correct level of caution must always be made and further guidance should be sought after where in any doubt; whether this is from a paid professional which specialises in temporary masonry support or through reading further up to date guidance via our website; www.brickbrace.com**

### S. Never leave eccentrically loaded props or braced masonry openings unattended as both methods are designed for access during a task and not a substitute for concentrically loaded Acrow props when unattended. Due to live, static and the further unknown dynamic loads leave a sufficient amount of masonry in place or wedge, prop concentrically, dry pack or build at sufficient points within the new opening during tea breaks and/or at the end of the working day where a permanent support is not in the final position.

### T. ****An opening should not be removed down to the full depth to gain the correct fitting access for tongued prop attachments or even for access for mechanical lifting equipment as it increases the risk of greater collapse due to the masonry having a larger void to fall and also creates a higher risk of accidental knocks & removal of fully loaded props during demolition.****

###  ****Proven through risk assessments, the safest method is to remove only a sufficient amount of masonry to allow the fitting of the permanent support. Once the permanent support is in its final position, packed and cured, then the rest of the opening can be removed in a safer manner.****

### U. The traditional tongued prop attachment ****was designed in the mid 1980’s when the typical rooms & openings were smaller and a cavity only 50mm, but due to changes in construction design a cavity has doubled in size and over 150mm upon new properties for further thermal value and with open plan living accommodation vastly increasing opening sizes within a typical residential rear extension “knock through” therefore attempting tasks which require longer & wider steels with welded top/bottom plates for larger openings and wider cavities and still only using the out-of-date tongued attachment is where more cases of collapse occur from overextending even further from the wall to gain enough fitting access.****

### V. Fully understand that all masonry alterations are to be planned and carried out by competent people and to know that all temporary masonry support equipment can be dangerous when used by less knowledgeable personnel and especially when sold/hired without providing written guidance.

### W. A truly competent builder is capable of questioning his own knowledge and willing & able to adapt to required progress to keep up to date. Never stop learning as this information is not exhausted and will be up-dated from time-to-time due to further research and inevitable changes within construction design.

**www.brickbrace.com**