Scottish House Builders Forum

MANAGING TEMPORARY WORKS

Jim Fitzsimmons



Trained in TW 2018 so far.....























Format

What are Temporary Works (TW)

Historical failures

Legislation covering TW

BS5975

HSE statistics

Opportunities for training

Questions and answers



Temporary works

- Protection.
- Access.
- Support.
- Remain in situ at the end of project.
- Vast range of TW available



TW V's Value for money

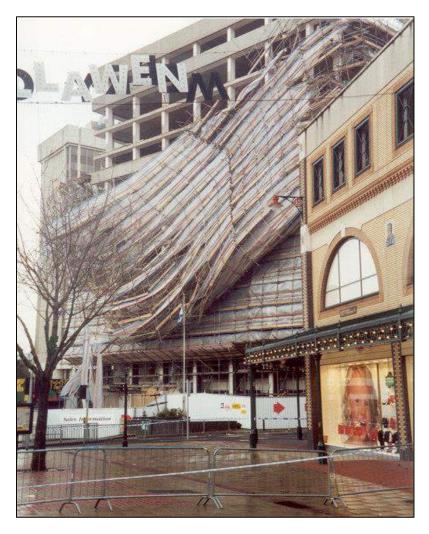
- Effective safe designs V's Poorly designs
- Poor standards for smaller projects.
- 78% > £15million projects
- 23.8% < £200,000.00



Historical failures



Cardiff scaffold collapse





Tower crane collapse



ASSOCIATED LEGISLATION



Legislation

- BS5975 is industry best practise.
- Quasi-legal status.
- A number of key regulations contain TW processes.
- CITB Courses available for TWC/TWS.
- Experience and training will result in safer sites.



HASAWA74

Section/ Regulation [†]	Requirement	
	afety at Work etc. Act 1974 (HSW Act) sonably practicable = SFARP)	
S2	Duty on employer to prevent harm to employees SFARP	
S3	Duty on employers and self-employed to prevent harm to non-employees (other workers and the public) SFARP	
S6	Duty on suppliers of articles and substances to ensure they are safe to use SFARP and supplied with instructions/information – this includes during transportation, assembly, installation, use, cleaning, maintenance, dismantling	
S7	Duty on employees	
Key parts of the HSW Act are necessarily short and to the point. The Act is goal setting (i.e. the aim being to avoid injury or ill health) and this allows individuals and organisations a large degree of freedom about how they plan and organise their operation. Much greater detail on duty holder duties is set out in subsidiary health and safety regulations		

CDM REGS 2015

CDM deals with project arrangements from inception. The client is required to lead and (in most projects) to appoint a principal designer and a principal contractor to coordinate the overlapping stages from preparation through conduct of the work. There are also specific requirements for the site arrangements to deal with specified types of work. Sensible management of temporary conditions and temporary works is an implicit expectation throughout CDM



Construction (Design and Management) Regulations 2015 (CDM)			
R2	Definitions include 'construction work' and 'structure'		
R4	Client duties		
R5	Statutory appointments		
R8	Competence		
R9	Designer duties		
R11	Principal (lead) designer duties		
R12	Construction Phase Plan		
R13	Principal (lead/main) contractor duties		
R15	Contractor duties		
R18(2)(b)	Site fencing* (and R13(4)(b) and R15(10))		
R19	Stability of structures*		
R20	Demolition/dismantling		
R22	Excavations*		
R23	Cofferdams/caissons*		
R24	Inspection and reports*		
R27	Traffic routes		
R28(6)	Protection to prevent vehicles falling from edge of roadway*		

CDM Regs – Site Security

Regulation (2) Where necessary in the interests of health and safety, a construction site must, so far as is reasonably practicable, and in accordance with the level of risk posed, comply with either or both of the following—

- (a) have its perimeter identified by suitable signs and be arranged so that its extent is readily identifiable; or
- (b) be fenced off.



Boy found dead on building site slipped into plastic pipe, says grandmother

The body of Conley Thompson, seven, was found near Barnsley, South Yorkshire, after he failed to return home from playing in a park



▲ Conley Thompson was found dead on a construction site. Photograph: Demotix/Corbis

The seven-year-old boy whose body was found near Barnsley died when he slipped into a plastic pipe on a building site, his grandmother has said.

Conley Thompson, who went missing after playing with friends in a South Yorkshire park on Sunday night, was found dead on a building site in Worsbrough

CDM Regs - Structures

Regulation 19 Stability of structures

Regulation 19

- (1) All practicable steps must be taken, where necessary to prevent danger to any person, to ensure that any new or existing structure does not collapse if, due to the carrying out of construction work, it—
 - (a) may become unstable; or
 - (b) is in a temporary state of weakness or instability.
 - (2) Any buttress, temporary support or temporary structure must—
 - (a) be of such design and installed and maintained so as to withstand any foreseeable loads which may be imposed on it; and
 - (b) only be used for the purposes for which it was designed, and installed and is maintained.
 - (3) A structure must not be so loaded as to render it unsafe to any person.

House builder – London 2015



Scaffold collapse



Excavations



MHSWR 99

Management	Management of Health and Safety at Work Regulations 1999 (MHSWR)		
R3	Employers and self-employed shall make suitable and sufficient risk assessment of all work activities affecting health and safety of employees and others		
R4	Principles of prevention to be applied – remove main hazards and control remainder		
R13	Workforce capabilities and training		



PUWER

Provision	and Use of Work Equipment Regulations 1998 (PUWER)		
R2	Work equipment definition – any machinery, appliance, apparatus, tool or installation		
R4	Work equipment to be suitable for situation		
R5	Maintenance		
R6	Inspection		
R8	Information and instructions to enable safe use		
R9	Training in use of work equipment		
R11	Prevention of access to dangerous (moving) parts		
R20	Stability of equipment		
Portable	welfare and site offices props shoring falsework formwork scaffolds ladders		

Portable welfare and site offices, props, shoring, falsework, formwork, scaffolds, ladders, stair tower kits, etc. are all temporary works work equipment. This includes off-the-shelf and bespoke arrangements

	ociooting equipment for work at height	
R8	Requirements for stability, platforms, edge protection and access	
R10	Preventing falling objects	
R11	Exclusion zones if falling objects possible	
R12	Inspection of work at height equipment	

Selecting equipment for work at height

Planning and organisation of work at height

Hierarchy – avoid work at height – collective protection preferred – then

individual protection - individual fall arrest as a last resort

Work at Height Regulations 2005 (WAHR)

Workforce competence

(Temporary works explicit throughout)

R4

R5

R6

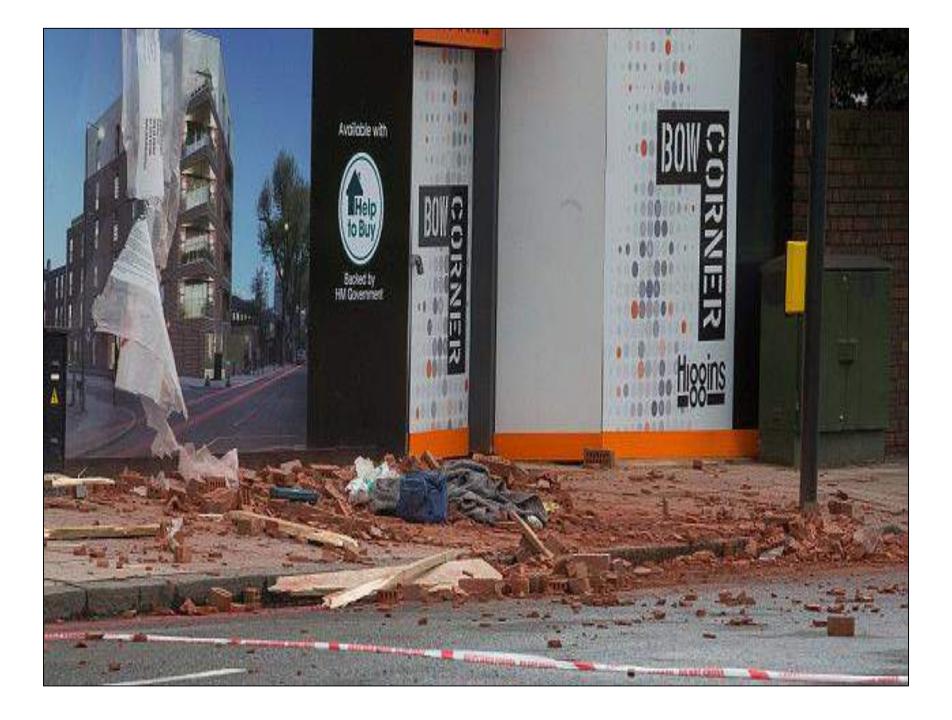
R7

Inspection of places of work at height R13 R14 Duties on persons working at height Unless an existing place of work can be used for work at height without upgrading, all other

work at height equipment and arrangements explicitly involve temporary works

NB Order based loosely on order of application to a temporary works situation

^{*} Temporary works requirement is implicit unless marked with an asterisk [†] Key sections/regulations listed – check full statutory instrument to see other parts





Other legislation regarding TW

TABLE 3: EXAMPLES OF LEGIS	LATION THAT MAY ALSO
AFFECT TEMPORARY WORKS	AND ASSOCIATED ACTIVITIES

Legislation	Notes
Highways Acts	Road closures, pavement possessions, obstructions in the highway, temporary traffic management, etc. all involve temporary works and need time and a timescale to allow arrangements to be agreed with the Highway Authority and put into effect
Planning Acts	Much demolition now requires planning permission; larger, long-term temporary works (including some facade retention, access and material handling facilities) may need planning permission; as will temporary sites such as construction shafts, off-site haul roads and material lay-down/transfer/storage areas, site accommodation blocks, etc.
Building Acts	Demolition notices are required for many structures to allow the local authority to stipulate making-good requirements
Building Regulations	Temporary works may influence the design of the permanent works of a building and any permanent effect on a part of the building that falls under Building Regulations will need to meet current requirements
Party Wall Act	Civil duty – works that could affect a boundary with other parties need to be agreed with the other parties, i.e. where off-site damage could result to adjacent properties
Occupiers Liability Act	Civil duty on site – owner to ensure those who could enter the site (at any time) are not placed at undue risk of harm
Construction Products Regulations 2013	EU legislation applying to all EU members – require products used in permanent works to comply with performance standards that are established for a wide range of products, including bespoke structural steelwork
Various environmental legislation	

BS5975

BS 5975:2008+A1:2011



Code of practice for temporary works procedures and the permissible stress design of falsework



...making excellence a habit."

Industry best practice

- Based upon Braggs recommendations
- Comes in 3 parts
- Procedural control of TW on sites
- Roles of the DI, TWC, TWS, TWD
- Wind loading calculations
- Materiel usage against degradation
- Falsework design
- Stress tables and charts
- Section 2 Organisational control



HSE STATISTICS Improvement and prohibition notices served since 2016

- Scaffolding 315 Offences
- Ground works 64 Offences
- Building projects 1191 Offences
- Construction of domestic properties 2442



Notice 3087	60354 served again	n 21/02/2018
Notice Type	Immediate Prohibition Notice	
Description	PN210218 JAT1 Work around the unprotected lift shaft openings other than to make safe by a competent person. Risk - A person could fall a distance liable to cause personal injury from unprotected edges. You have failed to take suitable and sufficient measures so far as is reasonably practicable to prevent a personal falling a distance liable to cause injury (e.g guardrails)	

Location of C	Offence		
Address	juli di	Region	Yorks & North East
		Local Authority	Scarborough
		Industry	Construction
		Main Activity	41200 - CONSTRUCTION OF BUILDINGS
		Type of Location	Fixed
HSE Details			
HSE Group	CDOP1GP5	HSE Directorate	Construction Division
HSE Area		HSE Division	Yorkshire and Humber

Notice 308804682 served agains		05/03/2018
Notice Type	Immediate Prohibition Notice	
Description	P 05032018/JC002: Failed to ensure that the walls above the window opening are properly supported leading to risk of collapse leading to risk of personal injury.	

HSE Area

Location of C	Offence		
Address		Region	East & South East
		Local Authority	Vale of White Horse
		Industry	Construction
		Main Activity	41202 - CONSTRUCTION DOMESTIC BLDGS
		Type of Location	Fixed
HSE Details			
HSE Group	CDOP3GP15	HSE Directorate	Construction Division

HSE Division

South East

Notice 308796899 served against		
Notice Type	Immediate Prohibition Notice	
Description	SN: 308796899 (PN/060318/JAT3) Work above ground floor where there is a risk of a fall from height other than to make safe by a competent person. A person could fall a distance liable to cause injury from unprotected edges. You have failed to take suitable & sufficient measures so far as is reasonably practicable to prevent a person falling a distance liable to cause injury (e.g. guard rails/mid-rails) SN: 308796956 (IN//060318/JAT2) You have failed to provide suitable & sufficient fire fighting equipment & alarm systems on site.	

HSE Area

Address		Region	Yorks & North East	
		Local Authority	Bradford	
		Industry	Construction	
		Main Activity	41100 - DEVELOPMENT BUILDING PROJECTS	
		Type of Location	Fixed	
HSE Details				
HSE Group	CDOP1GP5	HSE Directorate	Construction Division	

HSE Division

Yorkshire and Humber

Notice Type	Immediate Prohibition Notice
Description	You have not taken all reasonably practicable steps (for example b the early provision of suitable and sufficient shoring installed under the supervision of a competent person) to prevent danger to persons from the fall or dislodgment of material and you have not taken suitable and sufficient steps to prevent any person, vehicle, plant and equipment from falling into the excavation.

Location of Offence

Address		Region	London Kensington & Chelsea Construction	
		Local Authority		
		Industry		
	LONDON SW3 4LY	Main Activity	41100 - DEVELOPMENT BUILDING PROJECTS	
	England	Type of Location	Fixed	
HSE Detail	s	·/-		
HSE Group	CDOP4GP22	HSE Directorate	Construction Division	
HSE Area		HSE Division	London	

Scaffold

HSE * About HSE * Regulating and enforcing * Register of prosecutions & notices * Enforcement notices public * Notices found

Notices found

1283 Matching results found from 45681 total records: Showing Page 1 of 129, results 1 to 10

Filter

Notice Number	Recipient's Name	Notice Type	Issue Date	Local Authority	Main Activity
308798983		Improvement Notice	09/03/2018	Aberdeenshire UA	SPECIALISED CONST NOT SCAFFOLD
308799004		Improvement Notice	09/03/2018	Aberdeenshire UA	SPECIALISED CONST NOT SCAFFOLD
308799015		Improvement Notice	09/03/2018	Aberdeenshire UA	SPECIALISED CONST NOT SCAFFOLD
308798741	Supa Scaffold Ltd	Improvement Notice	08/03/2018	Lancaster	SCAFFOLD ERECTION
308867345	Purbeck Civil Engineering Ltd	Prohibition Notice Immediate	08/03/2018	Test Valley	SPECIALISED CONST NOT SCAFFOLD
308805038	M & M Scaffolding (Cornwall) Ltd	Prohibition Notice Immediate	07/03/2018	Cornwall UA	SCAFFOLD ERECTION
308793138	Ben Strover	Prohibition Notice Immediate	06/03/2018	Ashford	SCAFFOLD ERECTION
308831942	Mountview Partitions Ltd	Improvement Notice	06/03/2018	Not Applicable	SPECIALISED CONST NOT SCAFFOLD
308842311	Link Scaffolding (South East) Limited	Prohibition Notice Immediate	06/03/2018	Chichester	SCAFFOLD ERECTION
308789918		Prohibition Notice Immediate	05/03/2018	Aberdeenshire UA	SPECIALISED CONST NOT SCAFFOLD

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SUMMARY

 TW are part of all construction projects in either a practical sense or from a managerial perspective

- Roles to play at all level of management
- DI, TWC, TWS, TWD, (ATWC 2018)
- With a proactive approach to TW

Training available

CITB accredited training

TWC

TWS

SMSTS

SSSTS

HSA

SEATS

Bespoke



Thanks for listening Questions?

