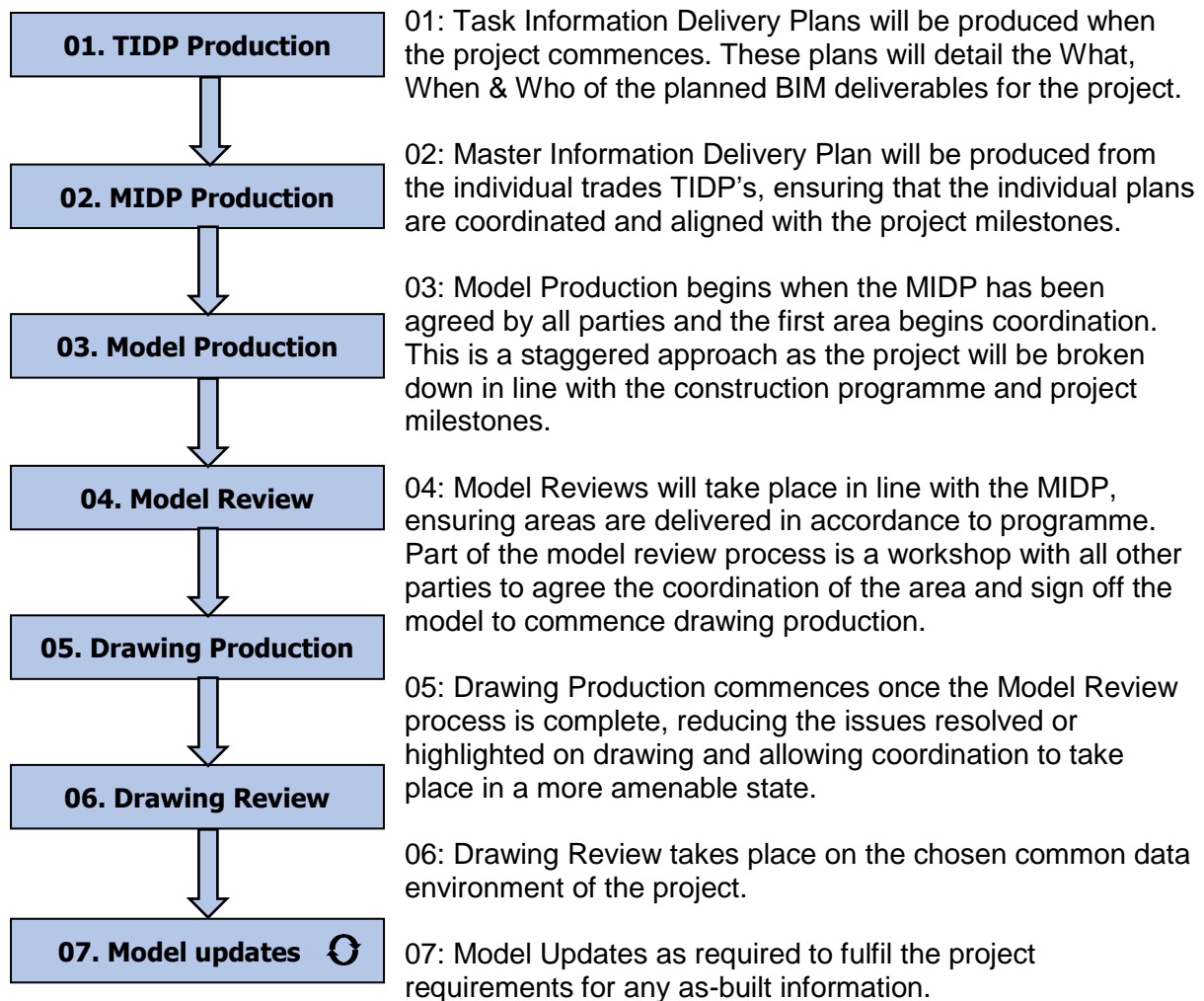


1. Demonstrate an effective approach to working using BIM to Level 2

TClarke have delivered numerous projects to a BIM Level 2 standard nationwide, both as a subcontractor and lead subcontractor for Mechanical, Electrical and Public Health works. This has provided TClarke with the experience required to digitally deliver large scale MEP schemes, utilising a model-based data and information delivery approach in line with BS 1192:2007+A2:2016 and PAS 1192-2:2013. TClarke have extended experience tailoring data within models to specific client/end user requirements in consideration for the future use of our deliverables in OPEX phase outlined in PAS 1192-3:2014.

Aligning our processes with the requirements set out within PAS 1192-2:2013 ensures that our contribution to the Employers Project Information Model are standardised and in line with other project stakeholders. TClarke have authored standard methods and procedures ensuring individual compliance to project requirements.

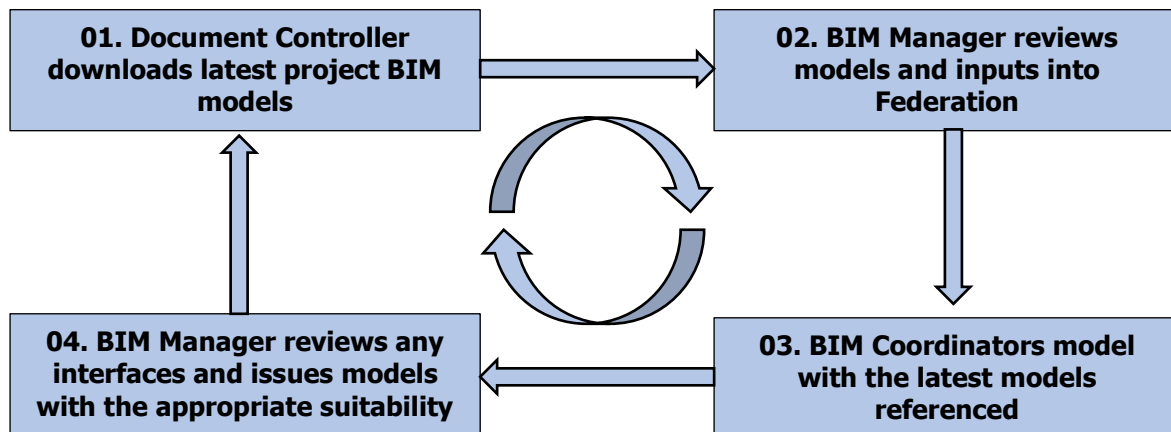
Below is detailed TClarke typical approach to setting up and delivering a BIM project as a subcontractor and lead subcontractor;



2. Demonstrate the Applicant's approach to feeding into the Employers BIM model.

TClarke standard is to utilize Revit for the allocated model deliverables on any given project. This software employs a bi-directional associative approach to data management allowing TClarke to input, amend and extract data in large quantities, ensuring our BIM models contain correct and relevant information. Using an approach of coordination within the 3D environment ensures any input from TClarke into the Employers Project Information Model is coordinated with other project stakeholders BIM models.

Below is detailed typical approach to model management for a project;



3. Demonstrate how the BIM modelling has supported a construction programme, construction sequencing, progress reporting and risk management.

TClarke have found that the use of the BIM modelling has increased project stakeholder's ability to review areas of the project and more readily advocate instances where modularisation would benefit cost and programme. The BIM environment also assists the review of sequencing, highlighting potential programme misalignments with the installation of MEP services and make ready needs. TClarke have identified progress reporting and visibility is increased within the BIM workflow, utilizing the PAS 1192-2:2013 strategy of volumetric spaces it is possible to allow the project team to report a RAG status of coordination in the specified areas.

Throughout the BIM process full use of the model is made to ensure all risks are identified and mitigated. These risks include;

- Spatial fit
- Access for installation
- Construction sequencing and logistics
- Plant access and replacement
- Access for maintenance
- CDM compliance review
- Personnel inductions
- Cost control
- Regulatory compliance

Full access to the model is available to all members of staff including site operatives to enable the above tasks to be progressively reviewed and actioned maximizing the benefit realised.

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B2 Supply Chain Management

Collaboration is a state of mind that's totally ingrained in the culture of the TClarke people you'll work with. It is also ingrained in our business ethos and the way we bid a job, identify value with you and deliver it. TClarke strive to maintain and deepen our reputation for delivering 'The TClarke Way' with focus on good value, trustworthiness and excellent work quality, and commit to collaborative relationships throughout our supply chain to ensure any services provided by the TClarke team, either directly or indirectly, is delivered to the high standards our clients have come to expect. TClarke does not compete as a commodity supplier of services - our teams are valuable and that is due in part to the spirit of collaboration and what it delivers in practice.

In the earliest stages, collaboration means adding deep real-world experience and vast current technical knowledge at the design stage to inform choices, provoke fresh ideas and improve value, performance or utility to the end user.

During the installation, collaboration means knowing you have a mature, sensible partner in the meeting and onsite, taking responsibility and understanding your objectives, working in the most constructive way to get the right result. You also know that the individual people you are working with are TClarke through and through - and so this spirit doesn't suddenly disappear when you most need it.

When things get tough - and in construction they occasionally can do, with TClarke you know you have access at every level from the site team to the Group CEO and Group MD (both themselves fully qualified engineers who started with the firm as apprentices). With TClarke you know that we have the scale of resource and depth of experience and expertise to handle the situation together with you in the most constructive way.

During commissioning and beyond, TClarke's people continue to give you that added sense of comfort. Everyone talks about collaboration. TClarke has a very longstanding reputation for delivering it and for partnerships that endure and would welcome the opportunity to integrate into your project team from preconstruction through to completion.

In order to ensure certainty and quality in what we deliver TClarke employ a formal supply chain management application process. Fair opportunity is provided to all of TClarke's suppliers/subcontractors and performance reviews are compiled to identify successful suppliers/subcontractors in order for them to be considered for relevant future opportunities. Wholesalers, suppliers, manufacturers and sub-contractors shall be approved by the Systems Manager, Health & Safety Director, Commercial Director and by a Main Board Director on the basis of previous experience and proven quality.

TClarke's Bank Station project required the selection of supplier/sub-contractor 'Z-Tech Control Systems Ltd' who were the preferred company for the client to supply and install the pumps throughout the project. However, it remained incumbent for Z-Tech Control Systems Ltd to be approved on the TClarke supply chain list as per our procedures detailed above prior to works being carried out on the project with TClarke.

TClarke propose involvement at the earliest possible stage allowing preparation to;

- Set out a project specific plan for the pre-construction period of the project.
- Allow the pre-construction activities to be monitored for delays that will impact construction programme and overall project completion.
- Provide early understanding of contractual responsibilities, conformance with requirements.
- Allocate activities to specific members of the project team.
- Allow management of project team members and supply chain partners.
- Aid efficient working and ensure opportunities are not missed.

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- Manage interfaces and ensure potential issues are identified early to minimise cost and programme impact.
- Allow the construction team to concentrate on construction activities during the construction stage.
- Provide consistency between team members and supply chain partners.
- Get it right first time

TClarke are currently collaborating with Lendlease, Specialist Sub-Contractors and the M&E Consultant for International Quarter London Plot S4 by way of Design Team Meetings focusing on drawings and project buildability to align risks and resources prior to contract award.

Sub-contractors are expected to adopt the TClarke approach and where necessary training will be provided for them and all TClarke employees. Supply chain members shall be invited to TClarke's quarterly SHE Committee Meeting which will share Health & Safety best practice. A Toolbox Talk version of these minutes will be prepared to disseminate to all of the workforce ensuring the TClarke approach is applied from senior management to apprentice.

The approved supply chain list shall be constantly reviewed via completion reports to ensure their suitability to continue to provide us a service. In the event of a non-conformance identified on an existing or new wholesaler, supplier, manufacturer or sub-contractor, this shall be issued to the Chief Buyer and Systems Manager, the non-conformance analysed and notified to Senior Management. Sub-contractor percentage scoring uses a traffic-light system and these results are entered on to TClarke's procurement system and tabled in the Executives Monthly Meeting. If a company falls under an overall performance score of 60% they shall be placed on the 'WATCH' list and require Director approval prior to placing any future orders. If a supply chain member performs under 40% they are placed on the 'STOP' list. Subject to discussion by Management, persistent offenders may be permanently removed from the approved list depending upon the severity of the non-conformance(s) and performance rating.

With regards to fair payment terms for suppliers, TClarke operate a 30-day payment policy with no invoices processed without a valid purchase order. There are no exceptions to this. Failure to adopt this process will result in non-payment. For queries, the sub-contractor should seek assistance from the local TClarke office and the buying team who manage the procurement for our business.

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B3 Health and Safety Management

At TClarke we pride ourselves in our consistent approach to Health, Safety and Wellbeing Management. As such we have detailed our processes for the provision of these topics within our SHE Management Plan. The SHE Management Plan is a precis version of how we actually manage our undertakings on a day to day basis when engaged on projects, especially within potentially hazardous and non-hazardous environments. The management plan also explains the culture which has been created within the business.

Communication of our procedures, documentation, reporting and knowledge sharing, is also detailed within the SHE Management Plan, and it contains the ethos behind the numerous 'Construction Industry Acknowledged' initiatives, including; the 'Switched onto Safety Passport', our 'Good to Go' Safe Start Briefing System, as well as our 'You See, You Say' system which provides channels (Report Cards and a Mobile Phone App) for reporting Health, Safety, Welfare & Environmental concerns, to ensure they are addressed within a timely manner.

As a company we consider ourselves to be very proactive with regards to the information we share and as such ensure that regular SHE Alerts and Bulletins are distributed across not only the Group of Companies but our Supply Chain group as well.

With regards to our Supply Chain we ensure consistent engagement which includes representatives from each of them attending our SHE Committee Meetings where we also invite our own 'workforce' employees. With regards to the former we also have a method to ensure that all employees have a voice regarding their opinions and as such any employee issues can be raised at the SHE meetings. This process is achieved through a process called 'Have Your Say' (which is another card written procedure). The full process is detailed within the SHE Management Plan however, 'in brief' an individual employee can ask a question or make a comment about their current undertakings on any given project and this is answered by the 'Chair Person' of the SHE meeting, and is also detailed in both the full presentation and a Toolbox Talk version of the minutes of the meeting in order that the individual who has issued the card receives a response, which we believe is essential to retain a harmonious workforce.

We would also like to clarify that ALL 'Have Your Say' cards are personally responded/answered to by the 'chair' of the meeting who is ordinarily the Technical Director responsible for Group Health & Safety.

To ensure the requirements of CDM2015 are adhered to, regular training including IOSH one day training, SSSTS, SMSTS, training for senior managers/directors, NEBOSH construction certificate, NEBOSH Diploma and Masters Degrees have been taken across the group of companies to ensure the requirements are specifically met.

We, as a company, acknowledge wholeheartedly that our supply chain is of paramount importance to our undertakings and although we have many established supply chain partners/companies, we ensure the competence of any new organisations is achieved by way of a formal pre-qualification process. The approved supply chain list shall be constantly reviewed via completion reports and performance reviews to ensure their suitability to continue to provide us a service and to be considered for relevant future opportunities. Subcontractors are expected to adopt the TClarke approach and where necessary training will be provided for them and all TClarke employees. In the event of a non-conformance identified on an existing or new wholesaler, supplier, manufacturer or sub-contractor, this shall be issued to the Chief Buyer and Systems Manager, the non-conformance analysed and notified to Senior Management. Subject to discussion by Management, persistent

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offenders may be removed from the approved list depending upon the severity of the non-conformance(s).

With regards to measuring Health, Safety and Wellbeing and how the associated TClarke information is generated, collated and disseminated across the Group and Supply Chain, please see below;

TClarke use accident and incident/near-miss (You See, You Say) reporting as the primary KPI's (Key Performance Indicators), but recognise, that there are a number of parameters or matrices that are available and could be used as well as or in addition too.

The TClarke process starts with our procedure of **Absolute Accident Reporting**.

We recognise under statute, there is a Legal requirement for recording and reporting accidents, diseases and dangerous incidents at work as laid down in the Social Security (Claims and Payments) Regulations, the Social Security Administration Act and the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR).

In this regard, TClarke pride ourselves in an accident reporting policy which is **Absolute!**

By working to an 'Absolute' policy, TClarke believe that every accident which occurs within the business, no matter how apparently small or insignificant, is dutifully recorded.

The above statement ensures that TClarke are 'in line' with and adhere to the requirements advocated by HSE (Health & Safety Executive) and DWP (Department for Work and Pensions) implicitly.

TClarke acknowledge that as a company operating in a Hazardous, Macho Orientated Industry, such as Construction, that a number of the accidents recorded may appear minor and superfluous to an 'outsider'.

However, as with all Statute requirements expected of the company, TClarke are confident that we fulfil our own 'duty of care' to the 'letter'.

No accident is accepted lightly, but by the same token, none are hidden, and ultimately, no statistic is buried.

Of course, we concede this can make our statistics look somewhat disproportionate against our competitors and peers, but we remain steadfast in what we know is required and morally correct.

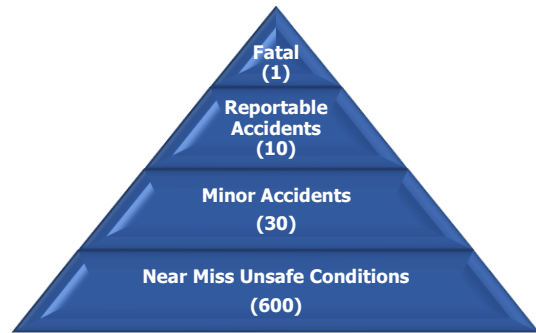
TClarke's Near Miss Reporting System; 'You See, You Say', is closely linked to 'Birds Accident Triangle'. As such this give us a measuring tool, with regards to the number of near misses compared to accidents that are actually realised.

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The operatives are aware of this association and ALL employees at ALL levels become increasingly conscious of the hazards and risks they are confronted with on a daily basis.

In relation to the above it is deemed that if you challenge the number of Near Misses and reduce their incident rate, then the number of resultant accidents will also be reduced or negated if controls are implemented.

We record all You See, You Say Reports, but are conscious that a number are more of a complaint than an issue with the potential to cause an accident or incident.



Operatives are encouraged and praised for contributing, but not pressurised into issuing Reports.

The information gathered through Inspection, Audit and Returns is collated in a number of ways and presented back to key stakeholders & managers accordingly, including; Pie Charts, Bar Charts & Dash Boards. Information is shared at both London and Group Management Board Meetings, London executives' meetings, London SHE meetings, Group SHE meetings, in the minutes of these meetings and where necessary alerts or bulletins. This high level of information obtained has even led to the 'pin pointing' of accidents on specific days and within certain time spans that formed in conjunction with the type of incident or accident causation. To this end, we have enclosed a number of representations by way of presentation slides, with regards to how the information gathered is presented at all or any of the above.

With regards to wellbeing in the wider community TClarke understands its corporate responsibility to the local and wider community in which we work. TClarke are registered with the Considerate Constructors Scheme and monitored against a Code of Considerate Practice designed to raise industry standards and requires us to carry out our construction activity with the greatest care and consideration. TClarke engage in initiatives with our communities by liaising with local schools, attending career open days, holding skills workshops and offering work placements for young and mature trainees. In addition to the support we give to providing employment to the local and wider community, TClarke and its people value the contribution we can make through charitable organisations and sponsored events that we support. TClarke sponsor a number of children's football/rugby teams and our contributions to a number of worthy charities continue and do not dwindle. These charities include; Evelina Children's Hospital, National Breast Cancer, Bliss, Alzheimer's, Princes Trust, DIY SOS & Teenage Cancer Trust.

With regards to Behavioural Safety programmes, TClarke have brought into the Mental Health and Wellbeing and accept it as a major topical subject and as such have a number of Mental Health First Aiders across the group. We have also given a number of wellbeing courses to employees in our own first floor training room facility, conducted by 'Green-Hearts Mindfulness & Meditation'.

TClarke participate in Clients behavioural safety schemes to actively engage industry wide. TClarke are working with Lendlease on Project KGX1 whereby Lendlease have a requirement that new personnel on site take part in an 'IIF' (Incident & Injury Free) training orientation within the first seven days on site. TClarke have committed to providing IIF trainers to orientate our staff on Lendlease projects.

TClarke will have continual involvement at monthly Director meetings to discuss future safety campaigns to be run, collaboratively working with Lendlease and all trade contractors.

TClarke

With regards to leadership initiatives one of the key aspects is the ongoing training given to our leaders. TClarke have launched a Career Pathway and Training Academy designed to attract and retain the very best within our industry and provide them with a clear career pathway with training and opportunities, for personal and professional growth to achieve their goals. Our trainees will be encouraged to learn, develop and to challenge, we expect our young engineers to become our future, leading TClarke further forward. Our aim is to provide our clients with a high level of service, adding value beyond just contracting. Managers at all levels are responsible for assessing and meeting the training needs of their staff. The relevant Divisional Director can advise and assist managers in carrying out these tasks and in compiling formal training programmes.

TClarke has an established labour force of which 13% consists of apprentices in their first, second and third years and adult trainees. We want everyone to buy into the values of the company and so TClarke have introduced a 'buddy' system which is in place from day one.

TClarke have held three events within our Leadership Programme from across the regions. These young leaders are part of our Three-Year Programme, graduating next year. TClarke are focusing on the future with successional planning and ensuring the best people are correctly placed to succeed.

The promotion and support for the wellbeing initiatives, is unprecedented and is undertaken with the full buy-in by not only the senior managers but also the Managing Director and the CEO also.

Regards,

Marc Bailey
Technical Director Group Health & Safety



Appendices

1. Health Safety & Environmental Policy Statement - January 2019
2. SHE Management Plan (Presentation 2018)
3. HSE eBulletin
4. TClarke H&S Alert - Protective Footwear
5. CDM Arrangements
6. TClarke SHE Committee Meeting August 2018
7. TClarke SHE Meeting Minutes - TBT - August 2018
8. Health & Safety Statistics Slides
9. Green-Hearts Mindfulness & Meditation
10. World Mental Health Day - Oct 2018
11. TClarke Staff & Employees Mental Health & Well Being Policy

TCLARKE GROUP OF COMPANIES SAFETY, HEALTH & ENVIRONMENTAL POLICY STATEMENT

The Company is totally committed to the prevention of Injury & Ill-Health. To this end, recognises that Statutory Regulations, Codes of Practice etc. will provide minimum standards only, and wherever reasonably practicable the Company will strive to improve such standards which are applicable to its operations, to prevent injury and damage, including ill to health to its employees and shall employ the best practicable means to ensure current activities cause no detriment to the environment. To this end, every reasonable effort, including: both physical and financial commitment will be deployed, so far as is reasonably practicable, to provide safe and healthy working conditions and to prevent dangerous occurrences, fire and any other damage. This ethos is mirrored on 'rail working' projects and compliments the Railway Groups Safety Plan and Network Rails SHE Policy'. To achieve this, the co-operation of all managers and employees is imperative.

TClarke are completely focused on challenging Accident and Ill-Health statistics and acknowledge, that only consistent commitment and application will achieve this.

We recognise that the implementation, monitoring and pursuance of the company's annual H&S objectives will support continual improvement in Health and Safety performance.

Best practice will prevail and planning and continual development of our Safe Systems of Work in accordance with current legislation and which complies with OHSAS 18001, is paramount. Safety, Health & Environmental standards will never be compromised to achieve other business objectives, and sufficient resources will always be afforded to enable the effective management of the Health & Safety Management System. To ensure the effectiveness of the Policy, it will be reviewed at least annually and amended when legal compliance dictates; these amendments will be brought to the attention of all employees and sub-contractors.

Joint consultation with all interested parties relating to Health, Safety and Welfare will provide constructive foundations towards the implementation of the pursuance of this policy.

Everyone is expected to work in such a manner that accidents and damage to themselves, others and the public are avoided. At no time should personnel ever intentionally, deliberately or recklessly disregard Safety, Health & Environmental best practice or interfere with any Safety, Health & Environmental measures in place. A breach of Safety, Health & Environmental regulations may result in disciplinary action against you.


The attention of all employees is drawn to Section 7 of "Health and Safety at Work Act 1974" which states: It shall be the duty of every employee while at work:

- To take reasonable care for the Health and Safety of him/herself and of other persons who may be affected by his or her acts or omissions at work; and
- As regards any duty or requirement imposed on his/her employer, or any other person by or under any of the relevant statutory provisions, to co-operate with him so far as is necessary to enable that duty or requirement to be performed or complied with.

The Health and Safety Organisation is under overall control of the Chief Executive who is directly responsible to the Board of Directors for the implementation of the Health and Safety Policy. The nominated director with responsibility for managing Safety, Health, Environmental and welfare matters is Mr. Mike Crowder.

Communications to the Company on matters appertaining to Safety and Health etc. will be through Supervisors and appointed Health and Safety Representatives to the Company Health and Safety Department.

The management of the Company will provide every employee with the training necessary to carry out their tasks safely. However, if an employee is unsure how to perform a certain task, or feels it would be dangerous to perform a specific job, then it is the employee's duty to report this to their Manager. An effective Health and Safety programme requires continuous communication between workers at all levels. It is therefore every worker's responsibility to cease work and report immediately, any situation which could jeopardise the wellbeing of themselves or any other person, without the fear of any management repercussions or consequences.



Mark Lawrence (Group Chief Executive Officer)

Date: January 2019

TClarke

SHE Management Plan

The TClarke Approach



Aims & Objectives Including Accident Prevention!

Preventing accidents and ill health continues to be a the key 'driving' force behind TClarke's SHE Objectives and is detailed in the SHE Policy Statement. The Objectives are actively endorsed by the Board of Directors and Championed by the Director Responsible for H&S, Mr. Mike Crowder.

Our Accident Prevention Strategy encourages participation by the whole workforce, from the C.E.O. down, and promotes continuous development and implementation of Safe Working Practices, Procedures, Initiatives and Near Miss Reporting throughout the Organisation.

We recognise, that our H&S Culture is dependent on a 'consistent message' and commitment to 'driving down' accidents, near misses and incidents. On-going training and 'best practice' increase the awareness of specific hazards encountered within our undertakings and on-going awareness is achieved through consultation, topical posters and SHE Bulletins/Mail shots. As such, the Company aim to achieve the following, year on year:

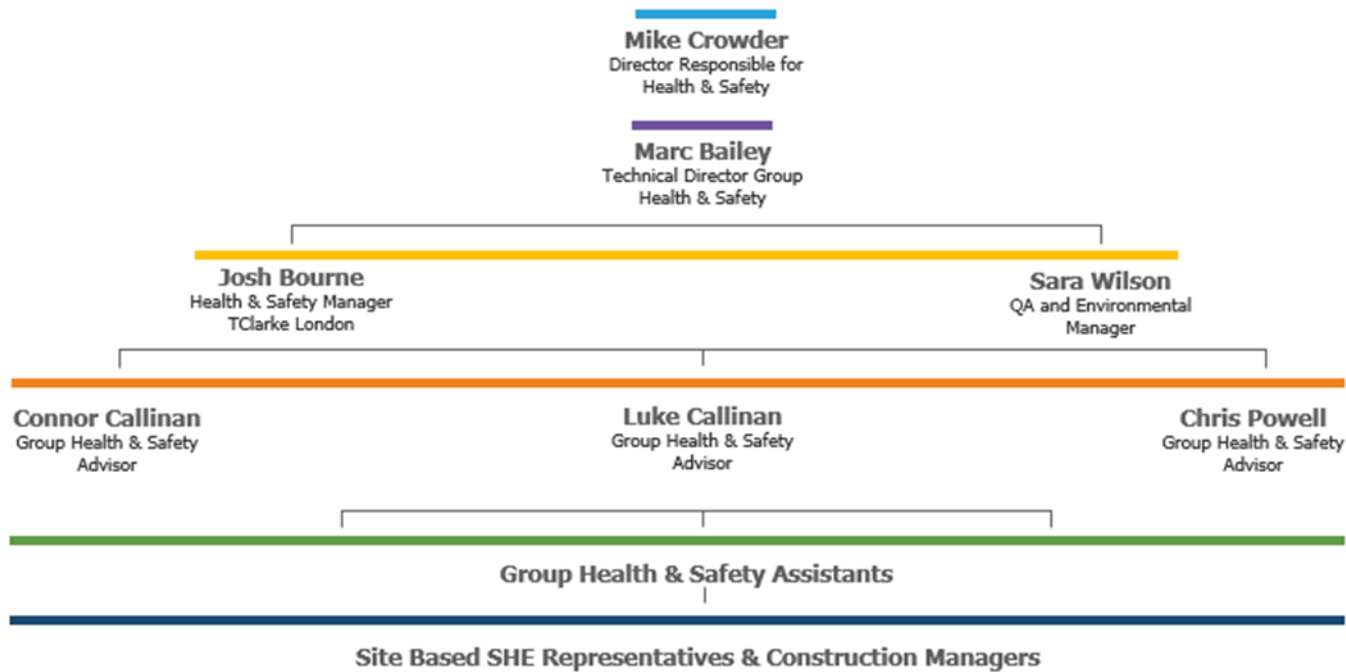
- 3% Reduction in the number of RIDDOR specified injuries.
- Number of 7 day injuries Reduced by 3%
- Number of 3 day injuries Reduced by 3%
- Number of lost day injuries Reduced by 3%
- Number of minor/first aid injuries. Reduced by 3%
- Increased numbers of 'You See, You See' phone app near miss reporting by 5%

Our continual drive to reduce accidents, is aided by a number of industry-recognised initiatives developed and implemented by the SHE Department.

SHE Management Structure

Management Structure

Safety

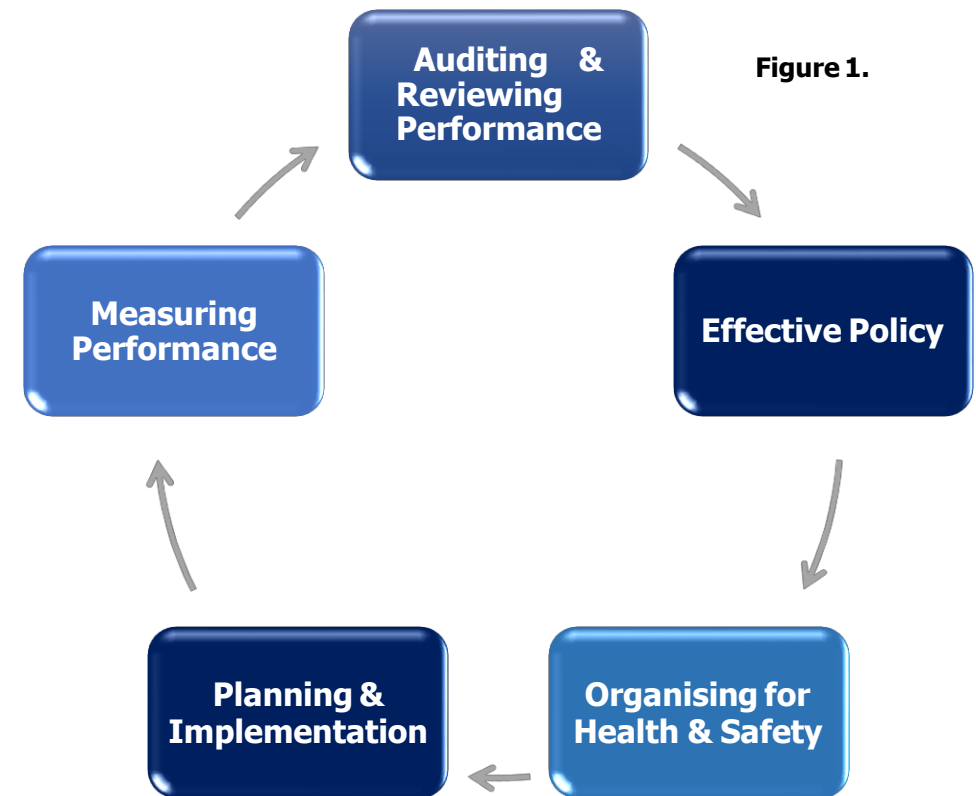


The SHE Approach

The TClarke SHE Approach is based firmly on OHSAS 18001 & ISO 14001 whilst encompassing the requirements of HSG 65: Managing for Health & Safety.

Historically POPMAR (Policy, Organising, Planning, Measuring Programme, Auditing and Review) figure 1. was used to ensure the improvement required to maintain the effectiveness of the SHE Policies within TClarke.

TClarke's SHE Approach was ahead of 'the game' for many years as it was always biased towards continuous improvement, encompassing the Total Quality Management (TQM) system which is now incorporated into HSG65. (See below figure 2.)



The TQM process places high importance on actively involving all employees in any engaged processes. TClarke recognise that visible leadership is crucial to achieving consistent improvement throughout the Organisation.

Figure 2.



Accreditations



constructing **better** health
IMPROVING WORKPLACE HEALTH



The Importance of the 4C's and 5P's for Promoting TClarke's Positive SHE Culture

The 4C's

- Established methods of **CONTROL** within the Organisation.
- Good **CO-OPERATION** between individuals, Health and Safety Representatives and different groups e.g. HSE and trade bodies.
- Good **COMMUNICATION** throughout the Organisation, using all available mediums e.g. visual and audible.
- Ensuring **COMPETENCE** through specific, continued training and embracing experiences.

The 5P's

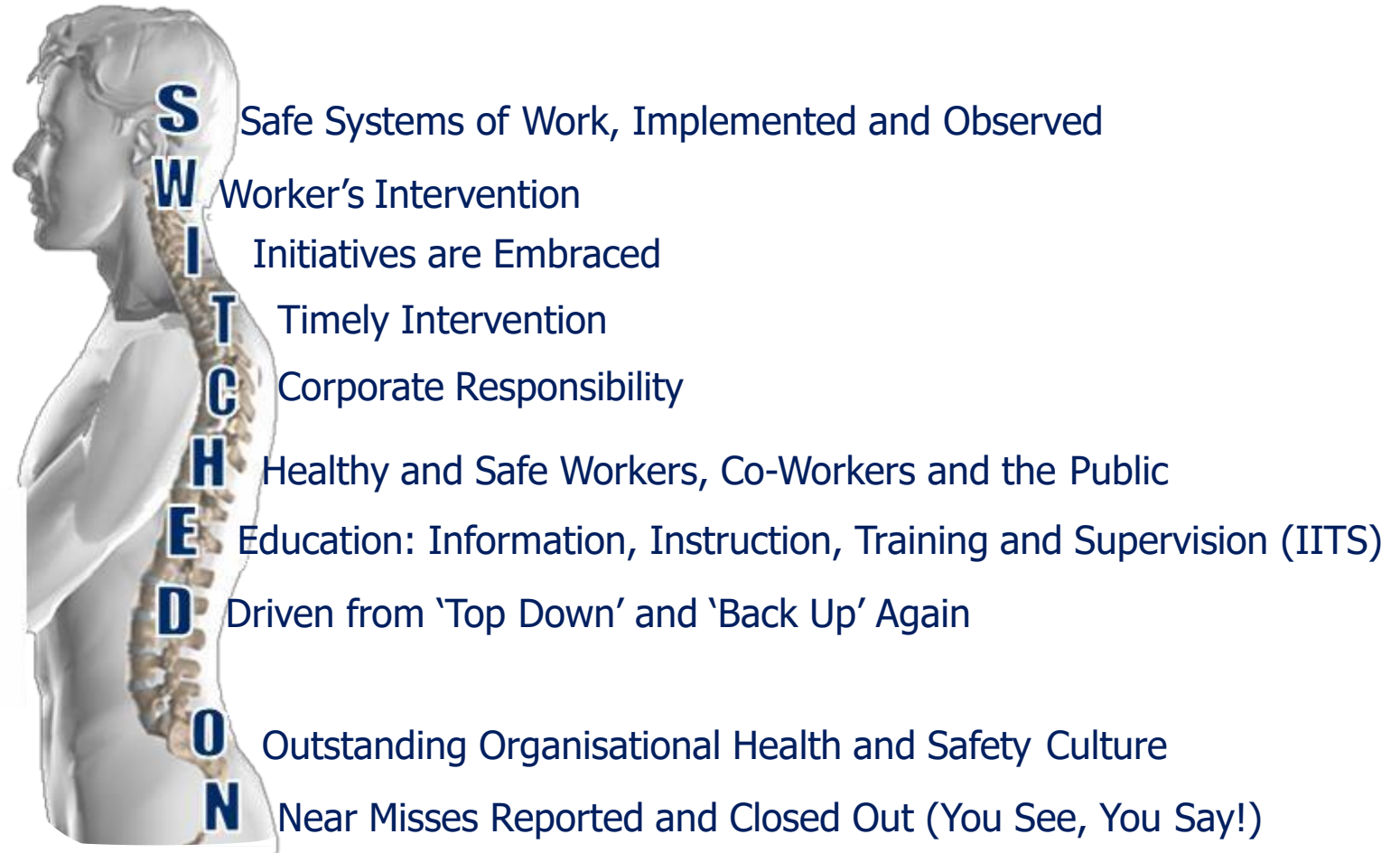
- **PLANNING** for **ALL** tasks is essential to ensure that they run smoothly and without any unnecessary risk.
- Giving TClarke **PEOPLE** the skills to enable them to work Safely and Healthily, in a manner friendly to the Environment.
- The right **PLANT** to ensure that Safe Systems of Work are not compromised.
- RAMS to identify task specific **PROCEDURES** and robust Organisation **PROCEDURES** will ensure effectiveness of Policy's.
- **PREVENTION:** All TClarke operatives have access to an extensive range of **PPE** (Personal Protective Equipment). As well as the 'everyday' **PPE**, TClarke has a Mandatory Hand and Eye Protection Policy which has been in place since August 2005. ('Ahead of the game!').

'Switched on to Safety'

In 2005 TClarke introduced the aspirations.

Switched on to Safety

Logo, it forms the 'Backbone' of the Organisations Health & Safety



WRITTEN MANAGEMENT AND CONTROL PROCEDURES

SHE 'A' Files and 'B' File

TClarke's detailed Safe Systems of Work (SSW) are fully documented in the Organisations Health and Safety 'A' Files.

The 'A' Files consists of the following sections:

- Accident, Near Miss & Witness Statement Reporting Procedures
- Site Safety, Health & Welfare Policy Organisation Documents
- C.O.S.H.H Manual & Forms
- Risk Assessments & Method Statements
- H&S Management & H&S Audit Procedures
- Regulations
- Insurance Certificate
- Company Health & Safety Policy
- Environmental Awareness



The Files are issued to each Project in both a hard copy and electronic useable format and are available on the TClarke Intranet. It also forms an ideal reference aid to assist managers to achieve TClarke's Robust Safe Systems of Work.

HV & LV Procedures

As a conscientious Electrical Duty Holder, TClarke has a comprehensive set of Procedures for Working in High & Low Voltage Sub-Stations, Switchrooms & Commissioning All Distribution Systems. Permit to Work Systems for working on both high and low voltage systems, are also detailed. Copies of Permits to Work are held in the File, but in practice, the Permit Forms are held on site in a duplicated pad, and the Permits are signed-off and 'cancelled out' on completion of any given electrical undertaking.

The 'B' File runs in conjunction with the 'A' File and consists of the 'useable' forms required to be completed as part of the Safe Systems of Work.

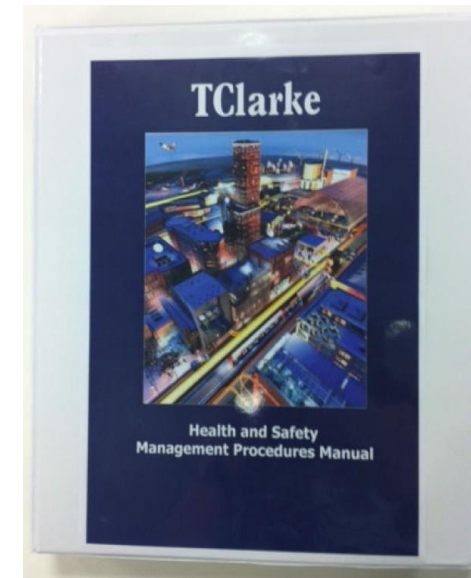
The 'B' File generates the auditable trail of recorded SHE paperwork and includes: site specific risk assessments/method statements (RAMS), site induction and training records, tool box talks and inspection records etc.

Health & Safety Management Procedures Manual

The procedure manual provides concise instructions and clear directions to ensure the effective day to day operation of the Organisation.

The Procedure Manual is used to ensure consistency and quality in ALL TClarke's undertakings.

The Manual provides 'sign-posts' to ensure safe systems of work are implemented to the same standard for every undertaking.



TRAINING

The importance of training has never been underestimated within the Organisation. The TClarke Head Office has its own dedicated 20-man+ training suite and is a licensed JIB/ECS CSCS Test Centre with three in-house invigilators in place.

All of our key Managers and key Supervisors across the Organisation who hold the IOSH Managing Safely in Construction Qualification and the CITB, SSSTS or SMSTS certificates to meet with the Build UK training requirements.

All training records are held on personnel records (COINS) at Head Office and entered into the Operatives own individual Health and Safety Passport (see Initiatives).

The table on the following pages details the SHE Management Plan, which is then followed by the TClarke Training Matrix.

SHE MANAGEMENT PLAN

Personnel	Status	Aim	Tasks	Action By
Senior Managers	Senior Managers have an understanding of the SHE principles and are committed to promoting and demonstrating this to employees. Issue of company Safety Passport. IOSH 4 day Managing Safely in Construction/CITB SMSTS. Company Safety Leadership Scheme	To enhance their understanding of SHE by supporting site managers and encouraging the development of new ideas and initiatives. To help them to lead the management of Health and Safety and to enable them to take a responsible executive approach to Health and Safety	Senior Managers to promote the implementation of preventative actions rather than reactive actions. To encourage site managers and operatives to be positive in their approach to the SHE Business Plan continue to promote SHE good practices on projects and within the business.	Senior Managers
Site Managers	Site Managers have an understanding of the SHE principles and are committed to promoting and demonstrating this to site staff and operatives. Site Managers have received in-house training with regards to the principles of SHE. IOSH 4 day Managing Safely in Construction/CITB SMSTS. Company Safety Leadership Scheme	To enhance their understanding of SHE by supporting site staff and operatives and encouraging the development of new ideas and initiatives. To be self-motivated on SHE initiatives by enhancing communication skills and leading by example. To help them to lead the management of Health and Safety on site and to enable them to take a responsible management approach to Health and Safety	Weekly meetings with site staff. Understanding the issues being raised and being positive in their response and ensuring that outcomes and explanations are communicated to the workforce. Liaise with and support the Principal Contractor on all SHE initiatives.	Site Managers
Foremen	Foremen have an understanding of the SHE principles and are committed to promoting and demonstrating this to the site operatives. Foremen have received in-house training with regards to the principles of SHE. Issued with Company Safety Passport. IOSH 4 day Managing Safely in Construction/CITB SMSTS. Company Safety Leadership Scheme	To enhance their understanding of SHE and encourage operatives to follow the principles of SHE. Specific training requirements have been identified and incorporated into their continued development plan. To help them to lead the management of Health and Safety on site and to enable them to take a responsible management approach to Health and Safety	Weekly meetings with site managers. Ensuring operatives work to the principles of SHE and follow company safe working practices including the wearing of PPE. Implementing method statements and risk assessments and ensuring that they are relevant to the tasks being carried out. Implementing any suggestion or ideas that come from the workforce that will improve safety on site. Company site inductions.	Foremen

SHE MANAGEMENT PLAN

Personnel	Status	Aim	Tasks	Action By
Supervisors/ Charge Hands	Charge Hands have an understanding of the SHE principles and are committed to promoting and demonstrating this to the site operatives. Charge Hands have received in-house training with regards to the principles of SHE. Issued with Company Safety Passport. IOSH 4 day Managing Safely in Construction and CITB SSSTS.	To enhance their understanding of SHE and encourage operatives to follow the principles of SHE. Specific training requirements have been identified and incorporated into their continued development plan.	Weekly meetings with Foremen coupled with open discussion during tool box talks presentation to operatives. Ensuring operatives work to the principles of SHE and follow company safe working practices including the wearing of PPE. Implementing method statements and risk assessments and ensuring that they are relevant to the tasks being carried out. Implementing any suggestion or ideas that come from the workforce that will improve safety on site. Company site inductions.	Supervisors/ Charge Hands
Operatives	All operatives have a working knowledge of the principles of SHE. All operatives have been issued with the company Safety Passport which identifies training received and competencies.	Every operative to fully recognise their individual skills and capabilities. To be able to understand the requirements of the SHE plan and be able to work within its framework. Specific training requirements are identified as and when special skills are required and are carried out during the period of the contracts.	To work safely at all times. To comply with the Company H&S Policy so as to help the Company fulfil its duty of care. To ensure that their work does not impact on the safety of others. To be aware of the effects that their work may have on the local environment. Be prepared to report unsafe conditions and unsafe acts.	Operatives
Sub-Contractors	All sub-contractors have an understanding of the principles of SHE and comply with to the requirements of the Company's safe working policy.	For sub-contractors to buy into the SHE plan and establish their own programme for integration with the Company's programme. To participate in the delivery of SHE to all and encourage their operatives to work within its framework.	Company site inductions. Compliance with the Company's H&S Policy. Work is carried out to signed-off Method statements and risk assessments. Operatives are trained and competent.	Site managers/ Supervisors/ Foremen/ Charge Hands
Systems	On-going Safety Awareness training programme with a 3-yearly turnaround of all employees including managers. Training incorporates the principles of the SHE plan and is carried out in-house by the Company's H&S department and. The Company's H&S 'A' File is based on HSG 65 and provides systems for auditing and reporting.	Regular audits are carried out with reports being issued to both senior managers and site managers where success and failures can be identified. Where failures are identified the system allows for corrective action to be taken, and where successes are identified, these can be carried forward to future projects.	The identification of employee shortcomings and the implementation of skill training required for each employee. Continued site based training for all managers and operatives to elevate the SHE working practices and encourage more active participation by all. During site visits managers are to include the identification and review of good work practices and those areas that require improvement.	Human Resources/ H&S Department/ Site managers/ Senior managers/ foremen/ Charge Hands

TClarke Health and Safety Carousel Training Matrix

Course Title	Duration	Provider	Content	Suitability	Review / Retrain
IOSH - Safety for Senior Executives	1 Day	IOSH (In association with SMTS)	H&S Roles/Responsibilities of Senior Executives	Senior Executives	No Expiry (3 Year Refresher course is Best Practice)
Site Induction	1 Hour Minimum	TClarke Site Foreman	Site Specific Requirements	All	Each Project
CITB SMSTS (Site Managers Safety Training Scheme)	5 DAY	CITB/MSM	CITB specified course content	Senior Management & Managers	Every 5 Years
CITB SSSTS (Site Supervisors Safety Training Scheme)	2 DAY	CITB/MSM	CITB specified course content	Key Site Supervisors	Every 5 Years
IOSH Managing Safety in Construction	4 DAY	CHSS	IOSH specified course content	Senior Management & Managers	Every 3 Years
IOSH Managing Safety in Construction	4 DAY	CHSS	IOSH specified course content	Senior Site Supervisors	Every 3 Years
ECS/JIB/CSCS Assessment	2 Hours	TClarke	General Construction H&S	Managers/ Engineers/ Supervisors/ All Operatives	Every 3 Years
General H&S Training	1 DAY	TClarke	H&S Legislation Risk Assessment Working at Height Etc.	Managers/ Engineers/ Supervisors/ All Operatives	Every 3 Years
Construction Supervisor Courses	2 DAYS	CHSG	Managing Safety on Site	Managers/ Engineers/ Supervisors	Every 3 Years
Mobile Elevated Works Platforms (MEWP) Training	1 DAY	HSS	H&S Legislation PUWER Regulations Maintenance & Inspections	Supervisors/ Operatives	Every 5 Years

Course Title	Duration	Provider	Content	Suitability	Review / Retrain
Mobile Tower Erection Training	1 DAY	Generation Access PASMA	Basic training in the safe erection & use of aluminium towers up/to 5 meters	Supervisors/ Operatives	Every 3 years
Working in Confined Spaces	1 Day	CITB	Safe entry, working & emergency rescue procedures	Supervisors/ Operatives	Every 2 Years
Abrasive Wheel Training	½ Day	External	Instruction in the safe handling, fitting & usage of abrasive cutting-off wheels	All	Each Project
TClarke SHE 'A' & 'B' File Training	1 Day	TClarke	Instruction in the use & implementation of TClarke SHE Procedures Manual	Senior Management & Managers	Every 3 Years
Supervisors Training	1 Day	TClarke	Managing Health & Safety on Construction Projects	Key Site Supervisors	Every 3 Years
HV Operational Training	5 Days	Scottish Power	Managing HV Networks & Operational Switching	Senior Management & Managers	Every 3 Years
First Aid Training	3 Days (Full) 1 Day (Emergency)	Authorised Supplier	First Aid Training & Information & how to administer treatment	Senior Site Supervisors	Every 3 Years
Safety Awareness Training	½ Day	External	Selection of Fall Arrest Equipment & rescue Procedures	Managers/ Engineers/ Supervisors/ All Operatives	Every 3 Years
Asbestos Awareness Training	½ Day	TClarke/ External	Information regarding TClarke Asbestos Procedures and compliance with 'Control of Asbestos Regulations' 2012	Managers/ Engineers/ Supervisors/ All Operatives	Every Year
Network Rail ICI	½ Day	External	Compliance with Network Rail Requirements	Managers/ Engineers/ Supervisors	Every 5 Years
London Underground Training	½ Day	External	Compliance with London Underground Requirements	Supervisors/ Operatives	Every 5 Years
KAD	½ Day	External	Compliance with DLR Requirements	Supervisors/ Operatives	Every Year
Safety Leadership Scheme	½ Day	TClarke	Managing of Leadership of Health & Safety	Senior Management & Managers	On-Going

In-House Training Facility



Initiatives

TClarke Passports

The TClarke Health & Safety Passports, were introduced in 2005 and were well received into the industry. You can see from below we are now on our 4th edition.



Would You ? Poster Campaign

Each poster is based on a topical observation and poses its own topical question, including;

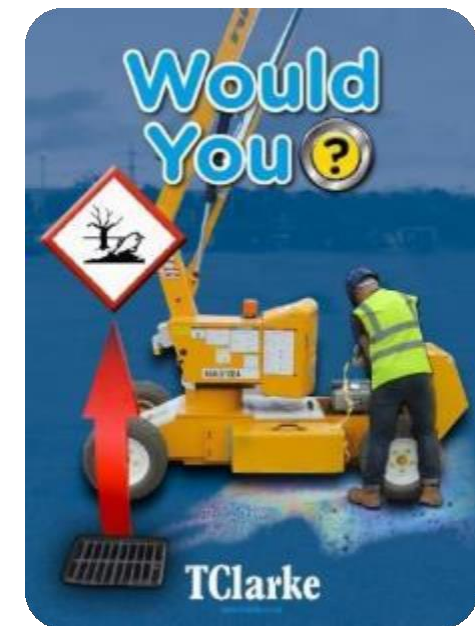
'Do this at Height?'



'Do this to your Feet?'



'Do this to the Environment?'



Health & Safety Pocket Guide



As part of the on-going Health and Safety Awareness schemes and initiatives developed by the Organisation, the SHE Department issues a pull-out '**pocket guide to staying safe in the workplace**' to all operatives.

Also issued is a plastic card holder with 4 pockets. The Pocket Guide fits perfectly into the card holder for safe keeping and it is envisaged that the remaining pockets will be used for the operative's 'time clock' cards, site passes and travel cards etc.

The Guide was produced for the operatives own wellbeing; whilst the card holder is convenient for keeping their 'plastic' safe.

Initiatives Continued



4th issue pens to ensure we keep evolving

The TClarke 'Write Safety into Your Day' pens continue the Safety message and are issued to Operatives on Health & Safety training days. The pens now have a combined 'touch-pad' feature which can be used on all touch screen devices.

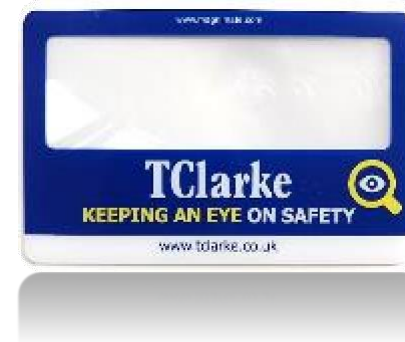
Oyster Card Holder (First & Second Issues)

The travel card holders are issued with the fold-out Health & Safety Pocket Guide.



MEWP Guardrail Sticker

The sticker came to fruition via the TClarke 'Dragons Den' initiative. A great idea for a sign post to be placed 'inside' the edge of MEWP Guardrails, above the 'ground' emergency controls was received, evaluated and implemented.



Magnifying Glass

The 'Keeping an Eye on Safety' magnifying glass is issued in the travel card holders and assist when reading notes and small drawings.

Initiatives Continued



Clear as you Go Sacks

TClarke Switched on to Safety re-useable 'Clear as you Go' Rubbish Sacks are used to clear waste and material off-cuts the sacks help to keep workfaces clean and tidy, improving the Organisation's 'Housekeeping Performance'.



'Permit to Work' Armbands

The 'Permit to Work' armbands are used by employees who have been issued a permit to work, the armbands keep permits safe, clean and readily accessible.



Weil's Disease Cards

The cards are issued to Operatives working in confined and restricted spaces and for work on the London Underground & Railway systems.



Safety Incident Notice

The Safety Incident Notice books are used in cases of Good or Bad Practice. The book has 3 stage/page carbon copy sheets which are issued to the individual, the HR Department and the SHE Department. Good Practice is rewarded as appropriate and bad practice is held on record and may lead to disciplinary Procedure!

Back to Back Hot Topics/Trends Cards

As part of the Organisation's continuing commitment to SHE (Safety, Health and Environmental) initiatives, we introduced a 'Health and Safety: Hot Topics' Card carried by all operatives.

The Key Points detailed on the Cards are issues which keep re-occurring on our Projects and it is hoped that these Cards act as a prompt to promote Safer Methods of Work, thus encouraging improvement.

The Hot Topics Cards are distributed to ALL TClarke Operatives (including Managers, Foremen, and Charge Hands), Agency Staff and Sub-Contractor Operatives.

In addition to the Hot Topics card the Health & Safety Trends card is also distributed to ALL TClarke Operatives (including Managers, Foremen and Charge Hands), Agency staff and Sub-Contractor Operatives.

The card shows trends and areas for improvement as identified through Health & Safety Auditing and Inspection.

The card details the precautions and actions required to ensure that only Safe Systems of Work prevail and the correct actions are implemented.



S.A.F.E. Incident Notification

Safety Alert for Executives (S.A.F.E.) Incident Notification

The S.A.F.E. Incident Notification procedure, is used to ensure that any Incident or Accident with the potential to affect the business is reported as soon as is practicably possible to selected 'key personnel'.

The 'key personnel' are known as the SAFE Group and consists of the Organisations CEO, All the Group MD's, Directors and H&S Managers.

The SAFE Group is informed of any adverse issues which occur, so that it's members are not left ignorant of facts or issues which could have a dramatic/catastrophic effect on the TClarke business as a collective.

The S.A.F.E. Form (opposite)

Who Issues the S.A.F.E.?

The S.A.F.E. form is to be completed and issued by the most Senior Director/Manager/Forman on a project as soon as is reasonably practicable after the incident occurs.

It is important that members of the SAFE Group ensure that all their own Management Team, report to them any incidents with the potential to escalate ASAP.

Action Required

The Director/Manager/Foremen who issues the S.A.F.E. must take responsibility for mitigating the effects of the incident to resolve the situation as soon as reasonably practicable, whilst ensuring that the recovery procedures are well managed.

What to Report?

Ordinarily the S.A.F.E. will probably consist of 'Reportable Incidents' or 'Dangerous Occurrences' as determined by 'The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013' (RIDDOR).

What do you do?

The person who is responsible for completing and issuing the S.A.F.E. fills in all the relevant sections of the form and then once all sections have been completed it is emailed to: SAFE.Group@tclarke.co.uk

S.A.F.E. Incident Notification

S.A.F.E. Incident Notification

To: SAFE.Group@tclarke.co.uk	
S.A.F.E. Incident Notification Raised by (Name):	
Company:	Project:
Location/Area:	Date:
	Time:
Incident Summary:	
Incident Details:	
Who is involved:	
Third Parties are /are not involved (details):	
Emergency services have / have not been called?	
Enforcing Authorities have / have not been informed?	
Further Information:	
Project Director/Manager:	
Contact Phone Number:	
Email:	
Report Status:	
An Interim Report will be issued in 12 / 24 / 36 Hours? (Delete as appropriate)	

It's all About;



TClarke Alerts on WhatsApp

The TClarke Alerts Notification 'medium' on 'WhatsApp' mirrors the Safety Alert For Executives (S.A.F.E.) Incident Notification Form which is explained below;

Alert for Executives

The Incident Alert procedure, is used to ensure that any Incident or Accident with the potential to affect the business is reported as soon as is practicably possible to selected 'Key Personnel'.

These 'Key Personnel' are known as the 'SAFE Group' and consists of the Organisations CEO, all the Group MD's, Directors and H&S Managers and other 'Key Personnel'.

The SAFE Group is informed of any adverse issues which occur, so that it's members are not left ignorant of facts or issues which could have a dramatic/catastrophic effect on the TClarke business as a collective.

Who Originates an Alert?

The Alert is 'raised' by the most Senior Director/Manager/Forman on a project as soon as is reasonably practicable after the incident occurs.

It is therefore important that members of the SAFE Group ensure that all their own Management Team, report to them any incidents with the potential to escalate ASAP.

Action Required

The Director/Manager/Foremen who issues the Alert must take responsibility for mitigating the effects of the incident to resolve the situation as soon as reasonably practicable, whilst ensuring that the recovery procedures are well managed and don't escalate the situation.

What to Report?

Ordinarily the Alert will probably consist of 'Reportable Incidents' or 'Dangerous Occurrences' as determined by 'The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013' (RIDDOR).

What do you do?

The person who posts the Alert should give brief details of; the incident, time, date, place, emergency services involvement, HSE involvement and any action taken.

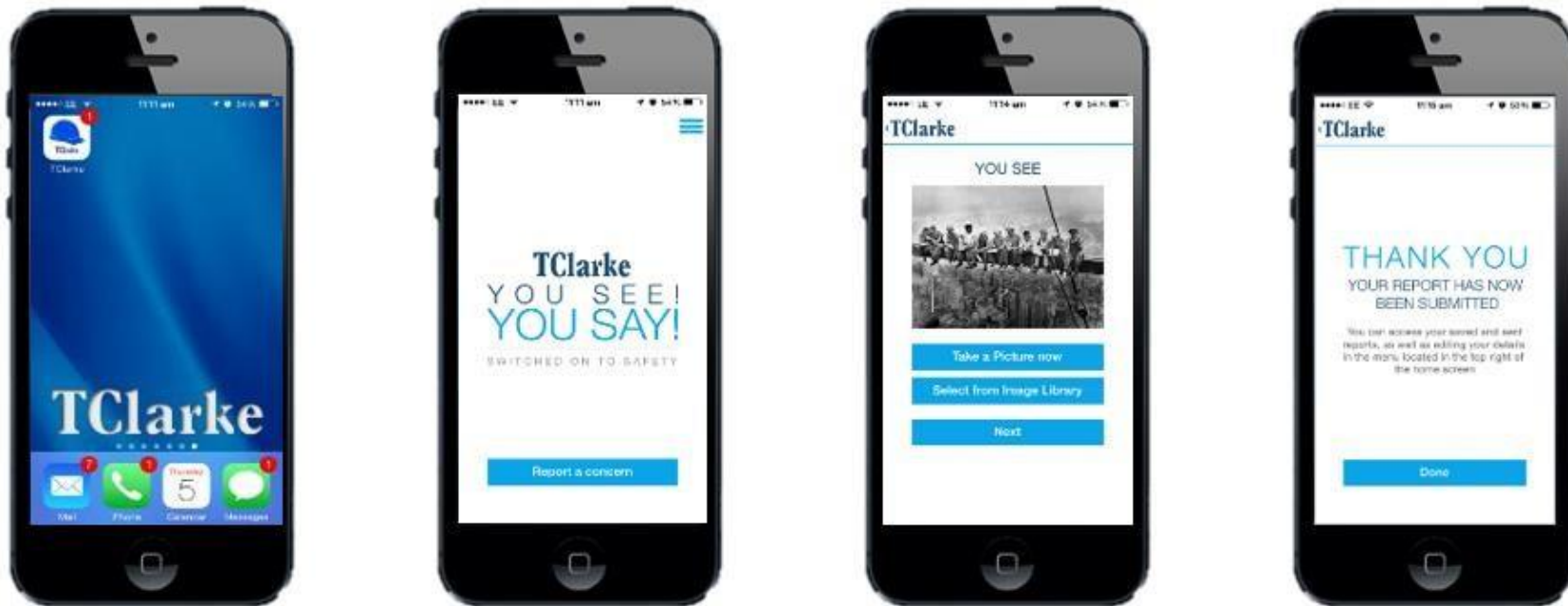


You See, You Say! Mobile Phone App

In addition to the 'hard copy' of the You See, You Say Cards, TClarke have developed a Mobile Phone App.

It allows operatives to report an incident/ potential 'Near Miss' in 'Real Time' at the click of a button.

Each report is sent to the appropriate Group Company Office to be addressed, closed-out and logged.



'FRONT LINE' H&S SURVEILLANCE "HAVE YOUR SAY!" REPORTING CARDS

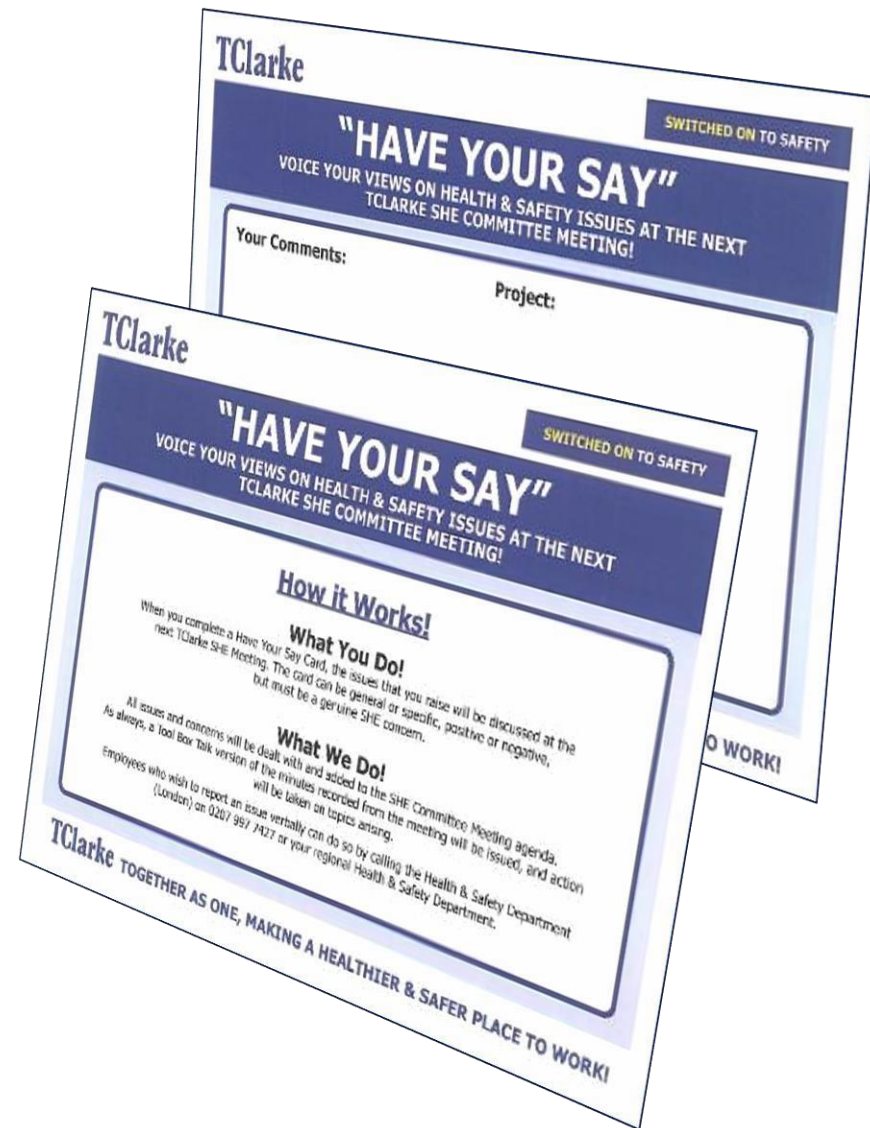
The cards promote, 'Work Face' feedback from site personnel and empowers them to be more accountable and vociferous about the issues encountered on site.

Primarily the items on the "HAVE YOUR SAY!" are Procedural, as the 'YOU SEE, YOU SAY!' Cards are used for more urgent issues.

The Cards are intended to encourage communication and help build relationships, which in turn help to boost operative's self-esteem, value and worth. Completion of the card(s) also provides an overview of the H&S Culture on a project, along with the Management ethos, existing standards, and any areas of concern.

TClarke acknowledge that communication between site operatives and Line Managers is essential with regards to constantly improving the general standard of Health and Safety within TClarke.

The 'Have Your Say!' cards are collated and issues raised are discussed at quarterly H&S Committee Meetings. They are discussed amongst Employee Representatives, Line Managers, Divisional Directors and Senior Management. The issues on cards are always addressed & minuted.



Intro

Introduction

The TClarke 'Good To Go' file and Pre-Task Briefing sheets assist in the requirement for Pre-Start and/or any other project requirements.

How to use

The double-sided Pre-Task Briefing (PTB) runs prior to or during briefings at the workface with the existing Risk Assessments and act as a daily reminder of the residual risks of the undertaking.

To ensure the form is sufficiently completed in the first section, enter the Date, Project and Contract No. being undertaken.

The 'Hazards Associated with the Task' which have been pre-identified, if one applies to the task, then it should be deleted through it.

The 'Major Hazards' box should detail but which have not been identified, if one applies to the task, then it should be deleted through it.

The 'Task Controls' section identifies a or more of the controls does not apply accordingly by 'striking a pen line' through it.

The 'Any Additional Controls Identified' which have not been identified in the above are identified then write 'None Identified'.

The final section on the first page requires a permit required, tick Yes or No. If a permit is required, then delete as necessary.

The person giving the 'Good To Go', sign and the operatives who have received the 'Good To Go' pre-task briefing and undertaken the task.

TClarke GOOD TO GO PRE-TASK BRIEFING

Front

Date: _____ Project: _____ Contract No: _____

Task Location: _____

Task Being Undertaken: _____

Hazards Associated with the Task

Gravity Falling from Height Falling Objects/Tools 200kV+ Cranes Lifting Equipment Manual Handling	Electrical Electrical Contact Induced Voltage Backfeed Flash Potential Static Charge Equipment Failure Live Services	Major Hazards Please identify: _____ _____ _____
--	--	---

Task Controls

Control Measures Barriers Permits Suitable Access Equipment Suitable plant Screens/Guards Isolations	Safety Warning Access/ Signage Designated
---	--

Any Additional Controls Identified

Any Electrical/Mechanical/Entry Permits Required

Yes No

YOU SEE, YOU SAY!

TClarke GOOD TO GO PRE-TASK BRIEFING

Back

Have You Considered the Following? (Delete as Necessary)

Work Procedures RAMS Isolation of equipment Safe System of Work Supervision of Work Permit to Work Working Co-ordinates Handovering Avoid Signage	People Competent Workforce Proper Supervision Non-Competent Personnel Restricted Control Signage	PPE Eye Protection Safety Glasses/Goggles Ear Protection Hearing Protection Safety Footwear Sun Protection High Visibility Clothing Fall Protection Hand Protection Respiratory Protection Medical Alert E.g. Diabetes/Allergies	Tools/Equipment Power Tools Hand Tools Crane/hoist for the job Excavator/Loader Segregation of equipment For pedestrian zones Ingressions Mechanical Alert E.g. Trolley/Tractor/Side	Special Considerations Weather Conditions Lighting Safety Adverse Structure Condition of Materials Hot surfaces Dropped Loads Noise Vibration
--	--	--	---	---

Person Giving 'Good To Go':

Sign: _____ Print: _____

Names of Operatives Involved

When Sign is filled in by the worker, this has been given the 'Good To Go' to start and undertake the task.

Start: _____	Print: _____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

YOU SEE, YOU SAY!

SWITCHED ON TO SAFETY



What is it?

The TClarke 'Good To Go' file and Pre-Task Briefing sheets assist with the requirement for 'Pre-Start Briefings', 'Safe Starts', 'Daily Briefings' (DABS) and/or any other project requirements for day-to-day Safety Briefings.

How it Works

The double-sided Pre-Task Briefing (PTB) sheets are completed prior to or during briefings at the workface. The PTB runs in parallel with the existing Risk Assessments and Method Statements (RAMS) for a task and act as a daily reminder of the residual risks and the control measures required.



A5 Folder

Supply Chain

The majority of TClarke's turnover is spent with suppliers and sub-contractors, as such we acknowledge that the Supply Chain plays a key part and is integral to the overall sustainability of our business.

By and large the members of the TClarke supply chain are tried and tested and have worked as part of the TClarke team on many successful projects. As the organisation has grown so has the number of quality service providers known to the Group members.

The services we supply and projects we are involved in, is based on working in partnership with a particular Project 'chain' and ensuring we engage them on fair terms and conditions to deliver the desired mutual objectives.

Long standing relationships with preferred contractors in the TClarke supply chain include: TA Ronan, Creatside, ABB, Schneider, Mardix, Simmtronic & Edmondsons.

We have supply chain arrangements in place with the majority our key suppliers, and part of this arrangement involves using a number of supplier's depots as a temporary 'call-off' facility so that materials are delivered as and when required to minimise storage on site. Major equipment is always delivered to site and installed immediately to agreed construction programmes.

Supply chain involvement

TClarke engage their key supply chain members through inclusion at SHE committee meetings, and issue of the meeting minutes in full and as a condensed 'Tool Box Talk' version. The supply chain also receive Health & Safety bulletins and alerts and also receive audits and inspections as a matter of course.

Management of Sub-Contractors and Suppliers Includes:

- Sub-Contractors/Supplier application questionnaires
- Pre Start Meetings
- Mid contract Sub-Contractor/Supplier performance reviews/traffic light system
- Sub-Contractor site inspections included in TClarke inspection
- Supervisors appointed to monitor Sub-Contractor activities
- End of contract Sub-Contractor/Supplier performance reviews/traffic light system



Welcome to the latest edition of Construction Infonet

Construction Infonet is a free eBulletin from the Health and Safety Executive (HSE) to provide a regular update on health and safety issues for all in the construction industry.



1. HSE CONSTRUCTION HEALTH INSPECTION INITIATIVE - OCTOBER 2018

WHAT:

Health and Safety Executive (HSE) will be carrying out its latest construction inspection initiative throughout October 2018. This initiative will focus on **health**, in particular the measures in place to protect workers from occupational lung disease caused by **asbestos, silica, wood and other dusts** when carrying out **common construction tasks**.



WHY:

Priority is often given to safety but thousands more workers suffer ill-health at work than are harmed by at-work accidents. Asbestos and dust are **'slow killers'**. HSE estimates that annually there are around 8,000 work-related cancer deaths a year. The construction industry **accounts for around 3,500 of these** with asbestos and silica the major causes. Construction businesses and workers need to be aware of how **dangerous and hazardous** to someone's health such substances can be.

HOW:

HSE inspectors will be looking to ensure those involved with construction projects **know the risks, properly plan their work** and **use the right controls**. Where poor standards are found, **enforcement action** will be taken. Work right and **Go Home Healthy**.

Further information

- [Construction dust information sheet](#)
- [Construction dust busy builder sheet](#)

Social

To keep up to date with the initiative follow HSE on social media:

- [Facebook \(HSE\)](#)
- [Facebook \(SaferSites\)](#)
- [Twitter](#)
- [Instagram](#)

HSE's health campaign is using the hashtags **#Dustbusters** and **#WorkRight**. Take part with our **selfie signs** and promote your good practice.

Protective Footwear

It has been brought to the H&S Departments attention, that a number of operatives, including apprentices from across the Group of TClarke companies, are taking it upon themselves, to purchase their own Safety Boots.

This is despite the H&S Department/Company providing directly employed operatives with suitable and sufficient boots 'free of charge'.

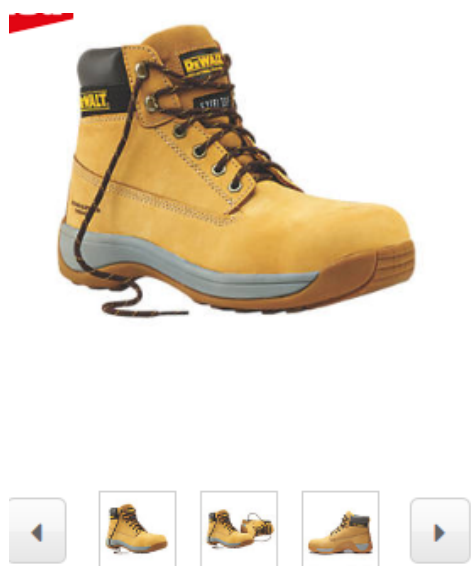
The main issues surrounding the purchase of boots by operatives and the self-employed/ agency workers, is the non-adherence to the qualities of the boot advocated/required by TClarke.

The qualities that **MUST** be adhered too are as follows and these, form the minimum Company requirement;

- 1. Suitable and sufficient ankle protection/support,**
- 2. Toe protection,**
- 3. And midsole protection.**

ALL footwear being used by operatives on a project, should be included in regular inspections and certainly before the operative is allowed on site for the first time!

It is understood, that one of the non-TClarke boots being purchased is the boot below;



DEWALT APPRENTICE SAFETY BOOTS WHEAT SIZE 8 (85930)

★★★★☆ [View reviews \(49\)](#) [View all Q&A](#)

Size 8. 100% leather upper. Padded collar and tongue.

- Safety Rating: SB SRA
- 200J Steel Toe Cap
- **No Protective Midsole**
- Wide Fit
- Oil-Repellent & Chemical-Resistant Sole
- 300°C Heat-Resistant Sole
- Water-Repellent
- Dual-Density, Shock-Absorbing Sole
- TPU Heel Guard

You will note, that even in the advert above it states, "No Protective Midsole". The problem is made worse when parents purchase this boot for their children, in good faith! (please see below);

" First time I purchased these boots for my Son. As safety boots, they are well made, comfortable, stylish, and provide good protection for a *basic construction environment*. "

REMEMBER; That ALL Boots worn on TClarke Projects MUST Conform to Company Policy. The Above boot does Not!

Compliance with Construction, (Design and Management) Regulations 2015 (CDM) Procedures

1. Scope

These procedures will apply to all construction projects under the Construction (Design and Management) Regulations 2015.

2. Purpose

Under CDM 2015, organisations or individuals can be one or more Duty holders for a project. The purpose of these procedures is to ensure that where a duty is identified, arrangements are put in place to for the planning, management monitoring and coordination throughout the relevant phases of the works. The procedure will also ensure projects covered by the above scope are notifiable to the HSE using the form F10.

3. Duties that may be undertaken by TClarke

Under CDM 2015, organisations or individuals can be one or more Duty holders for a project. It may be applicable that the following Duty holder roles will be undertaken or adopted under the requirements of Regulation 7 by TClarke.

- Client
- Principal Contractor
- Contractor
- Principal Designer
- Designer

General Statement Relating to All Duties

- a) With Regards to the Construction Design Management Regulations (CDM 2015) TClarke will ensure that the Company will only accept an appointment under CDM 2015 if The Regional Director feels that TClarke can fulfil the Company's obligations
- b) TClarke will cooperate with all other persons working on or in relation to the project
- c) TClarke and their subcontractors will report anything they are aware of that is likely to endanger their own or the Health & Safety of others.
- d) TClarke will provide any information or instruction to ensure the information or instruction is comprehensible and provided as soon as is practicable.
- e) TClarke will manage risks by applying the general principles of prevention;
- f) TClarke will ensure they appoint the right people and organisations at the right time;
- g) TClarke will ensure everyone has the information, instruction, training and supervision they need to carry out their jobs in a way that secures Health & Safety;
- h) TClarke will ensure all Duty holders cooperate and communicate with each other,
- i) TClarke will coordinate their work; and consult with workers with an aim of and engaging with them to promote and develop effective measures to secure health, safety and welfare.

4. Procedure for Compliance as a Client:

Definition: A Client is defined as

"An organisation or individual for whom a construction project is carried out"

- a) On all construction projects where TClarke are recognised as a Client, The Regional Director will ensure that other relevant Duty holders are appointed. (N/B Examples of Other Relevant

Duty holders are identified in Section 4 above but will primarily include the appointment of a Principal Designer and Principal Contractor if the Company are not undertaking these roles themselves).

- b) The Regional Director will ensure sufficient time and resources are provided to allow other Duty holders to fulfil their obligations under CDM 2015. The Regional Director will also ensure that all relevant pre-construction information is obtained and forwarded to the Principal Designer and Principal Contractor in a timely manner.
- c) The Regional Director will ensure a Construction Phase Plan is obtained from the Principal Contractor if more than one contractor is undertaking the work or the contractor if only one contractor is appointed. This document will be the basis for the effective Health & Safety management of the project, including the planning of risk assessments and will be checked for its suitability prior to works commencing. The Regional Director may request assistance from the Safety, Health and Environmental Advisor for checking the suitability of the plan, if he feels it is appropriate.
- d) Where more than one contractor is appointed TClarke will require a Health & Safety File to be forwarded to themselves by either the Principal Designer or if their appointment has ended before the completion of the project, the Principal Contractor
- e) The Regional Director will ensure that all construction work can be carried out, so far as is reasonably practicable, without risks to the health or safety of any person affected by the project; and that suitable welfare provisions identified under Schedule 2 of CDM 2015 are in place before allowing any construction works to commence.
- f) On notifiable projects where TClarke are recognised as a Client, The Regional Director will ensure that the Health & Safety Executive are notified using the Form F10 and will provide the Principal Designer and Principal Contractor with a copy in the Pre-Construction Information Document.
- g) This will include any construction project that is required to be notified to the Health & Safety Executive. Notification of a construction project is required when it is likely to last longer than 30 days and have 20 or more workers, working simultaneously at any point in the project or exceed 500-person workdays.
- h) On all construction projects where TClarke are identified as the Client they will ensure that the Principal Designer fulfils their duties under Regulations 11 & 12 of CDM 2015 and the Principal Contractor fulfils their duties under Regulations 12 to 14 of CDM 2015

5. Procedure for Compliance as a Principal Contractor:

Definition: A Principal Contractor is defined as

"An organisation or person that coordinates the work of the construction phase of a project involving more than one contractor"

5.1 Roles & Responsibilities

The Regional Director is responsible for ensuring these procedures are undertaken.

NOTE:

Where this policy refers to **The Site Manager/Project Manager or Project Engineer** this is equivalent to a non-working manager of the works who may be based on or off site.

Where this policy refers to **The Site Supervisor** this is equivalent to a working supervisor / charge hand / Forman of the works who is based on site.

5.2 Pre-Construction Phase Activities

- a) On all construction projects, regardless of notification requirements, where TClarke are appointed as the Principal Contractor, The Regional Director will ensure that all relevant pre-

construction information is obtained from the Client or Principal Designer to allow a suitable Construction Phase Plan to be produced.

- b) On all construction projects, regardless of notification requirements, where TClarke are appointed as the Principal Contractor, The Regional Director will ensure a Construction Phase Plan is produced prior to works commencing. This document will be the basis for the effective Health & Safety management of the project, including the planning of risk assessments. The Regional Director may request assistance from the Health & Safety Advisor for production of the plan. The relevant parts of the Construction Phase Plan will be issued to Contractors.
- c) The Regional Director will ensure provisions exist to plan, manage, monitor and coordinate Health & Safety in the construction phase of a project. This includes liaising with the Client and Principal Designer and organising cooperation between other contractors and coordinating their work.
- d) A copy of the Construction Phase Plan will be forwarded to the Client or their representatives prior to work commencing on site.
- e) On notifiable projects where TClarke are appointed as the Principal Contractor, The Regional Director will ensure the Client has notified the Health & Safety Executive on Form F10 and will request a copy with the Pre-Construction Information Document.
- f) When the job is notifiable to the HSE via F10, TCF.HS.5077.JAN19 must be used for the Construction Phase Plan
- g) Where TClarke are operating as the Sole/Principal Contractor a Construction Phase Plan must be produced for all projects. The forms (To be allocated) are to be used for the Construction Phase plan

5.3 Construction Phase Site Procedures

- a) All Site Managers to undertake Construction Skills Site Managers Safety Training Scheme (5 Day) or equivalent training course that will cover CDM Regulations, mitigation of risks, and management of on-site safety.
- b) All Site Supervisors to undertake Construction Skills Site Supervisor Safety Training Scheme (2 Day) or equivalent training course.
- c) The Site Manager/Project Manager or Project Engineer or equivalent will ensure at the prestart meeting that the Welfare, First Aid and Fire Prevention and management arrangements are in place and Contractors are aware of their compliance with site arrangements. These will be maintained by the Company throughout the duration of the contract. If at any time during the contract anyone is not satisfied with the standard of the Welfare, First Aid or Fire Arrangements, then a review of the arrangement is to be undertaken and where necessary the appropriate measures are to be taken to rectify / improve them by either the Site Manager/Project Manager / Project Engineer or equivalent.
- d) On all projects The Site Manager/Project Manager or Project Engineer or equivalent will ensure an appropriate communication process is in place with the Principal Designers/ Designers / other Contractors & Subcontractors. This will provide a channel for communication of health, safety and environmental issues between all parties involved with the project.
- e) The Site Manager/Project Manager or Project Engineer will ensure that all persons engaged on the site are competent for the tasks they are being asked to complete.
- f) The Site Manager/Project Manager or Project Engineer or person nominated by The Regional Director will attend Health & Safety consultative / site co-ordination meetings with the Principal Designers/ Designers / other Contractors & Subcontractors.
- g) The Site Manager/Project Manager or Project Engineer will ensure all TClarke employees and subcontractors of TClarke are aware of the site rules and receive an induction.
- h) The Site Manager/Project Manager or Project Engineer will ensure all TClarke employees and subcontractors of TClarke are aware of the Risk / COSHH Assessment and Method Statement and confirm they will work in accordance with them.
- i) The Site Manager/Project Manager or Project Engineer or equivalent will ensure that arrangements are in place for all operatives / visitors to consult with the Company on matters of Health & Safety.

- j) The Site Manager/Project Manager or Project Engineer or equivalent will ensure that the site is secured to prevent any unauthorised access to the site.

6. Procedures for Compliance as a Contractor:

Definition: A Contractor is defined as

"Anyone who directly employs or engages construction workers or manages construction is a contractor. Contractors include sub-contractors, any individual, sole trader, self-employed worker, or business that carries out, manages or controls construction work as part of their business"

6.1. Responsibility

The Regional Director is responsible for ensuring these procedures are undertaken.

NOTE:

Where this policy refers to **The Site Manager/Project Manager or Project Engineer** this is equivalent to a non-working manager of the works who may be based on or off site.

Where this policy refers to **The Site Supervisor** this is equivalent to a working supervisor / charge hand / Forman of the works who is based on site.

6.2. Pre-Construction Phase Procedures:

- a) For Single Contractor Projects, The Regional Director will ensure that the Client is aware of their duties by liaising directly with the Client.
- b) For Single Contractor Projects, The Regional Director will ensure that TClarke have the relevant competencies to advise the Client depending upon the knowledge and experience of the Client and the complexity of the project. Where the Regional Director feels TClarke are not competent they may consult relevant external agencies
- c) For Single Contractor, The Regional Director will ensure the Client provides any relevant pre-construction information they possess and the time and other resources to help TClarke to fulfil their duties under CDM 2015 do this.
- d) For Single Contractor Projects, The Regional Director will ensure a Construction Phase Plan is produced prior to works commencing. This document will be the basis for the effective Health & Safety management of the project, including the planning of risk assessments. The Regional Director may request assistance from the Health & Safety Advisor for production of the plan.
- e) On projects involving more than one contractor, as part of the duty to cooperate with other Duty holders, TClarke will provide the Principal Contractor with any relevant information so the Principal Contractor can monitor the management of Health & Safety at a project-wide level.
- f) On projects involving more than one contractor, TClarke will comply with any directions to secure Health & Safety given to them by the Principal Designer or Principal Contractor. TClarke will comply with the parts of the construction phase plan that are relevant to our work
- g) For All Projects, The Regional Director will ensure provisions exist to plan, manage, monitor and coordinate Health & Safety in the construction phase of a project. This includes liaising with the Client Principal Contractor, Principal Designer and organising cooperation between other contractors and coordinating their work.
- h) For All Projects, The Regional Director will ensure regular inspections of the workplace are undertaken and as part of this inspection compliance with CDM Regs will be checked. Where the Regional Director feels additional competencies are required, they may request external Health & Safety Consultants carry out the inspections on their behalf?
- i) On all contracts, where there is more than one contractor employed, the Regional Director will check that, a Principal Contractor has been appointed and (where applicable), the HSE notified before starting work.
- j) Any subletting of works is to be notified to the Principal Contractor.
- k) Information for the Health & Safety File is to be provided to the Principal Contractor.

6.3. Construction Phase Site Procedures:

- a) All Site Managers to undertake Construction Skills Site Managers Safety Training Scheme (5 Day) or equivalent training course that will cover CDM Regulations, mitigation of risks, and management of on-site safety. All Site Supervisors to undertake Construction Skills Site Supervisor Safety Training Scheme (2 Day) or equivalent training course.
- b) The Site Manager/Project Manager or Project Engineer will ensure at the prestart meeting that the Welfare, First Aid and Fire Prevention and management arrangements are in place and provided by the Principal Contractor. These will be maintained by the Principal Contractor throughout the duration of the contract and at any time if The Site Manager/Project Manager or Project Engineer or equivalent from TClarke is not satisfied with the standard of the Welfare, First Aid or Fire Arrangements this is to be raised with the Principal Contractor immediately and reported to the Company's Director.
- c) On all projects The Site Manager/Project Manager or Project Engineer will ensure an appropriate communication process is in place with the Principal Contractor / Principal Designers /Designers and other contractors. This will provide a channel for communication of Health, Safety and Environmental issues between all parties involved with the project. This will achieve compliance in terms of Co-operation and Co-ordination with the Principal Contractor and other third parties which will be achieved through formal and informal meetings, verbal dialogue and email.
- d) The Site Manager/Project Manager or Project Engineer will ensure that all persons engaged on the site are competent for the tasks they are being asked to complete.
- e) The Site Manager/Project Manager or Project Engineer or person nominated by The Regional Director will attend Health & Safety consultative / site co-ordination meetings with the Principal Contractor / Principal Designers /Designers and other contractors.
- f) The Site Manager/Project Manager or Project Engineer will ensure all TClarke employees and subcontractors of TClarke are aware of the site rules and receive an induction.
- g) The Site Manager/Project Manager or Project Engineer will ensure all TClarke employees and subcontractors of TClarke are aware of the Risk / COSHH Assessment and Method Statement and confirm they will work in accordance with them.
- h) The Site Manager/Project Manager or Project Engineer will ensure that if work detail / methods deviate from the Risk / COSHH Assessment and Method Statement then these documents will be revised to reflect the changes and communicated to the workforce and signed by them to say that they have been instructed in the change(s) and understand them.
- i) The Site Manager/Project Manager or Project Engineer will ensure that any design queries are communicated to the Client, Principal Designers and other Designers via the Principal Contractor.

7 Procedures for Compliance as a Principal Designer

Definition: A Principal Designer is defined as

"The Designer with control over the pre-construction phase of the project"

- a) On projects where TClarke are deemed to be the Principal Designer they will endeavour to assist the Client in the provision of suitable and sufficient Pre-Construction Information and advise the Client of any shortcomings with the available information and how to address them
- b) TClarke will so far as it is within their control, provide pre-construction information, promptly and in a convenient form, to every Designer and contractor appointed, or being considered for appointment, to the project.
- c) On projects where TClarke are deemed to be the Principal Designer they will plan, manage and monitor the pre-construction phase and coordinate matters relating to Health & Safety to ensure that, so far as is reasonably practicable, the project is carried out without significant risks to health or safety.
- d) When considering the design, the technical and organisational aspects of the Pre-Construction Phase, TClarke will take into account the general principals of prevention and the content of any existing Health & Safety files from previous projects carried out on the premises or land to be developed.

TClarke

- e) TClarke will endeavour to eliminate or control foreseeable risks to the Health & Safety of anyone persons engaged during the Construction Phase or persons occupying the completed premises as a workplace or cleaning and maintaining the completed premises
- f) TClarke will assist the Client with their duty to assess the suitability of a Construction Phase Plan where elements of design work are to be carried out after the construction phase has started.
- g) TClarke will assess the competence of any Designers likely to be under their control before they are appointed
- h) If the TClarke appointment is likely to end before the completion of the Construction Phase, the Company will ensure that the Principal Contractor has all the relevant information so that they are aware of the risks which have not been eliminated in the designs; understand the means employed to reduce or control those risks; and understand the implications for implementing the design work for the rest of the project.
- i) TClarke will gather and prepare all relevant information required for the Health & Safety File as the project continues. The completed file will be handed over to the Client upon completion of the project. If TClarke appointment ends before the completion of the project, the Health & Safety File will be handed over to the Principal Contractor for completion.

8 Procedures for Compliance as a Designer

Definition: A Designer is defined as

"An organisation or individual who prepares or modifies a design for a construction project (including the design of temporary works); or arranges for or instructs someone else to do so."

- a) On projects where TClarke are deemed to be a Designer they will endeavour to assist the Client and Principal Designer and other Designers with the provision of suitable and sufficient Pre-Construction Design Information. This will include residual significant risks associated with the design that cannot be eliminated, so it can form part of the Pre-Construction Information. This information will take into account the preparation or revision of the Health & Safety File other Designers; the Principal Contractor (or the Contractor on a single-contractor project) who has responsibility for preparing, reviewing and revising the Construction Phase Plan for the project and contractors who construct the design.
- b) TClarke will agree with the Principal Designer the arrangements for sharing information to avoid omissions or duplicated effort. Those who need the information must be given it at the right time. For example, in preparing the Construction Phase Plan, the Company will ensure the information is provided well before the construction phase begins.
- c) When preparing any design TClarke will take account of the general principles of prevention, and the Pre-Construction Information provided to them, with the aim, as far as reasonably practicable, of eliminating foreseeable risks. Where this is not possible the Company will take reasonably practicable steps to reduce the risks or control them through the design process and provide information about the remaining risks to other Duty holders.
- d) TClarke will endeavour to eliminate or control foreseeable risks to the Health & Safety of anyone persons engaged during the Construction Phase or persons occupying the completed premises as a workplace or cleaning and maintaining the completed premises
- e) TClarke will ensure all designs prepared for places of work will comply with the Workplace (Health, Safety and Welfare) Regulations 1992 (the Workplace Regulations), taking account of factors such as lighting and the layout of traffic routes

Welcome to the

TClarke

Safety,
Health and Environmental
Committee Meeting



22nd August 2018

TClarke

YOU SET, YOU SAVE KINSHIP FOR KIP UNCLE SAM ON TO SAFETY

Housekeeping

- Toilets
- Fire Alarm
- Smoking

Agenda



Apologies



Problems & Solutions



Workforce Engagement



Environmental



Near Miss Reporting



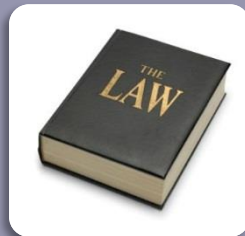
Topics of Concern from H&S Audits/Inspections



Accident Overview



Infringements/SINS



Legislation Update



H&S Awards



Any Other Business?

Apologies



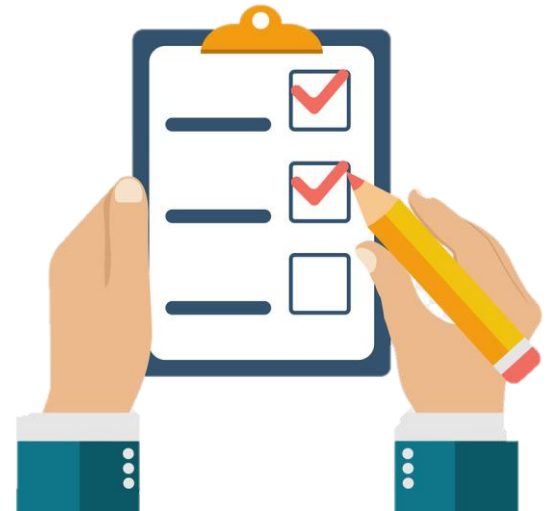
Problems & Solutions



Pre-Enrolment Health Questionnaires

Some Principal Contractors have been introducing pre-enrolment health questionnaires for all new operatives starting on the project. The Questionnaire will declare whether the individual is 'fit for work'.

Sir Robert McAlpine have had their own system in place for a while but **Multiplex** project have recently introduced their system using 'Duradiamond' Health Care.



TClarke A & B File/Procedures Training

Thursday 13th September – Head Office (10 People)

Thursday 20th September – Head Office (10 People)

Thursday 27th September – Head Office (10 People)



TClarke Culture Catch Up! - Refresher Training

A 1 Hour Training Presentation is to be given to all Key members of management including Sub-Contractor and Agency personnel. The training is aimed at refreshing the H&S Culture and strengthening the existing H&S Culture on TClarke. The intention is to role out the training towards the back end of September.



SWITCHED ON TO SAFETY

"HAVE YOUR SAY"

TClarke



Drugs and Alcohol Test Failures

- A number of failures
- Increased number of Tests



Unauthorised Scaffold Guardrail Alterations



The operatives work required the Scaffold Guardrail to be altered by 100mm to allow the install of the Sprinkler Mains Pump (Shown Right of Image). The two operatives asked TClarke operatives for a pair of stillsons to remove the handrail, to which the TClarke operatives informing the operatives that they were not permitted to and should not touch the



It became apparent that the two operatives amended the guardrail (without authority) out of hours, once other Trades had left for the day. However, it was identified that they did not secure the top handrail once complete (are shown in red circle), but did not inform the relevant parties (E.g. Scaffolders)



Due to the position of the TClarke Welding Area, a TClarke operative was carrying a section of 8" Cast Iron Pipework on his shoulder.

As he went to place the Pipe on the work bench, he placed his hand on top guardrail to steady himself.

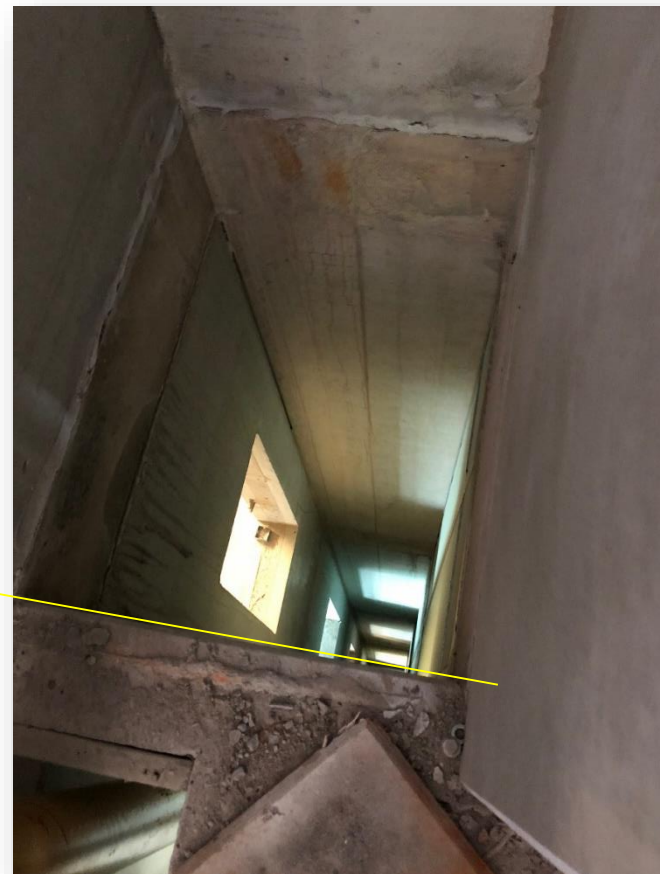


As the TClarke operative lent on the guardrail it gave way resulting in the operative falling towards the Riser.

As can be seen from the photos. The operative was only inches away from falling 8 Floor Levels down a Mechanical Riser. The individual was extremely fortunate and came away with only a cut lip as he fell towards the guardrail.

Needless to say, the individual was very lucky to escape what would have been a fatal fall.

A serious reminder why to not interfere with any safety equipment, and the requirement to have the correct training to undertake a task.



**Does anyone have any other Problems
and/or Solutions
they would like to discuss?**

Workforce Engagement



Have Your Say!

"HAVE YOUR SAY!"

**VOICE YOUR VIEWS ON HEALTH & SAFETY ISSUES AT THE NEXT
TCLARKE HEALTH & SAFETY COMMITTEE MEETING!**

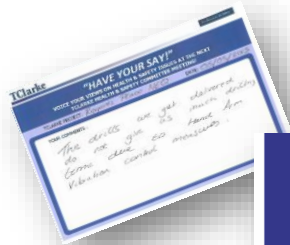
TCLARKE PROJECT: Bakerloo Line Link

DATE: 17/08/2018

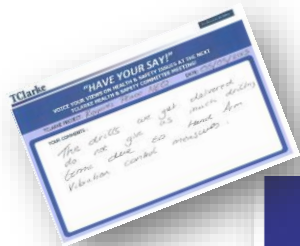
YOUR COMMENTS :

Regular Health Checks for operatives, especially those working nights over long periods.

Site visits from Senior Management to talk to operatives about the conditions and environments they work in, to see what improvements and initiatives can be made.



Have Your Say!



"HAVE YOUR SAY!"

**VOICE YOUR VIEWS ON HEALTH & SAFETY ISSUES AT THE NEXT
TCLARKE HEALTH & SAFETY COMMITTEE MEETING!**

TCLARKE PROJECT:

DATE:

YOUR COMMENTS :

The JIB are members of Constructing Better Health (which TClarke were instrumental in).

As such, if you are a JIB member you are entitled to a Health Check.

Site visits should take place as suggested, however improvement or initiatives can be made through the TClarke's Dragon Den or the H&S Department direct.

Have Your Say!

"HAVE YOUR SAY!"

**VOICE YOUR VIEWS ON HEALTH & SAFETY ISSUES AT THE NEXT
TCLARKE HEALTH & SAFETY COMMITTEE MEETING!**

TCLARKE PROJECT: Bakerloo Line Link

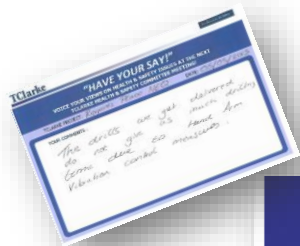
DATE: 17/08/2018

YOUR COMMENTS : Terry Martin

Training like having MEWPs etc. should be ongoing with having operatives always trained (not just down to the job you are on), coming from a firms pool of safety funds from all jobs.



Have Your Say!



"HAVE YOUR SAY!"

**VOICE YOUR VIEWS ON HEALTH & SAFETY ISSUES AT THE NEXT
TCLARKE HEALTH & SAFETY COMMITTEE MEETING!**

TCLARKE PROJECT:

DATE:

YOUR COMMENTS :

TClarke spend approximately £21k per year on various MEWP/IPAF Training for both direct and sub-contract labour.

Ongoing competence and refresher training would be a lot easier to achieve if operatives maintained their IPAF Log Books, but that is another issue previously discussed.

Unfortunately, although having people trained and ready to use equipment in this instance is a great idea, the cost of doing so (wherever the money is derived) is not going to happen. Not everybody needs to be trained at all times which makes the cost prohibitive.



Have Your Say!

TClarke

SWITCHED ON TO SAFETY

"HAVE YOUR SAY"

VOICE YOUR VIEWS ON HEALTH & SAFETY ISSUES AT THE NEXT TCLARKE SHE COMMITTEE MEETING!

Your Comments:

Project:

1st Step has recently launched a new website where alongside the industry training we deliver (IPAF/CITB/SSSTS/SMSTS/first aid etc.) we will be focusing on increasing our safety content and updates over the next few months.

We have also taken inspiration from TClarke and introduced a "Safety Concerns - report it now" on our website for any worker that believes they have seen unsafe conditions or witnessed unsafe working practices. So that if for any reason they don't think they can report to site, they can let us know, this is escalated to the entire senior 1st Step management team.

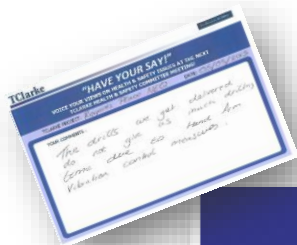
1st Step would also like to remind all rail projects NWR / LUL labour is sponsored by 1st Step and we are responsible for monitoring their hours and working patterns, if hours are being inflated on a timesheet & aren't actual hours worked please make it clear on timesheets, so that we are not chasing an exceedance authorisation.

Where there is a genuine exceedance, please respond promptly to enquiries from our compliance / monitoring team. i.e. timesheets that show more than 7 days in 72 hrs / greater than 11 hrs per shift / 7 consecutive shifts without a rest period.

There was also discussion some time ago regarding 1st Step personell attending a T Clarke Safety Induction, has there been any progression on this? We believe it would be beneficial for personell placing labour on site to have a first hand induction and/or site visit to ensure that the safety message is followed throughout.

TClarke TOGETHER AS ONE, MAKING A HEALTHIER & SAFER PLACE TO WORK!

Have Your Say!



"HAVE YOUR SAY!"

**VOICE YOUR VIEWS ON HEALTH & SAFETY ISSUES AT THE NEXT
TCLARKE HEALTH & SAFETY COMMITTEE MEETING!**

TCLARKE PROJECT:

DATE:

YOUR COMMENTS :

We thank First Step for their Have Your Say, with regards to the TClarke safety induction;

As previously detailed we intend to ensure all TClarke key personnel and those of our supply chain receive the 'TClarke Culture Catch Up' induction to ensure that a constant message with regards to TClarke's Health and Safety undertakings is maintained across the business.

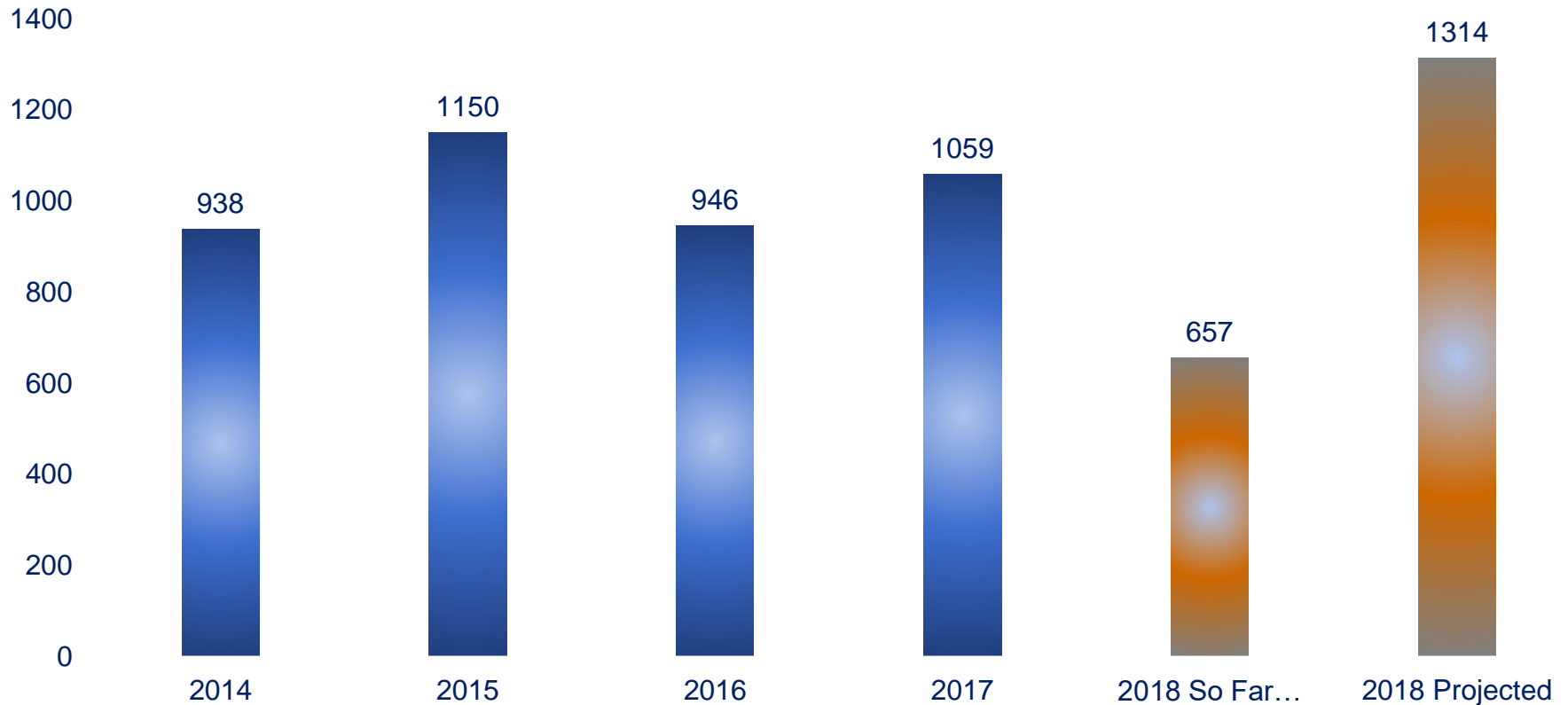
Environmental



Near Miss Reporting



You See, You Say! Reports – Annual Breakdown



Near Miss Reporting

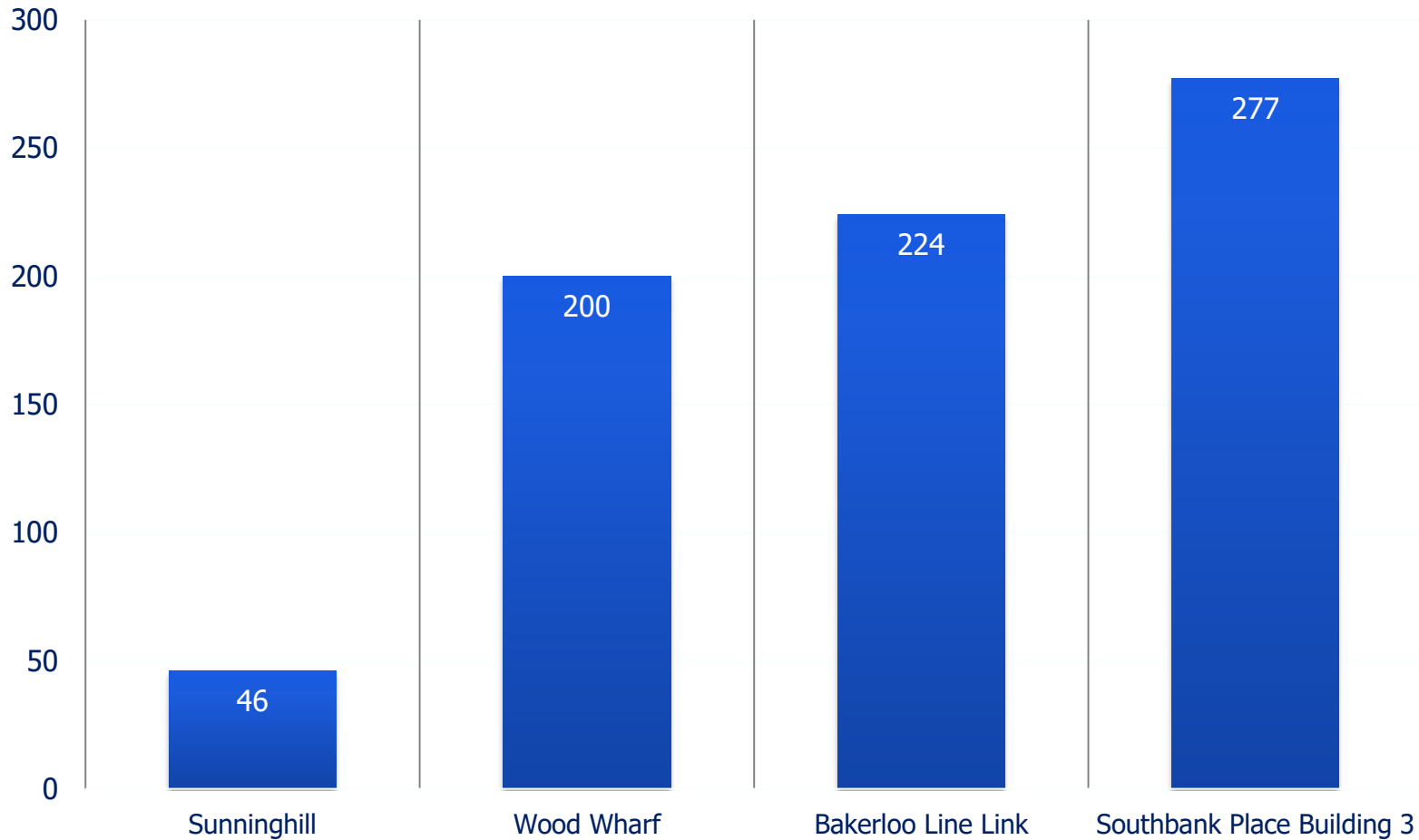
There were **657** 'You See, You Say!' Cards issued between January – July 2018.



TC Project	YSYS Reports Cards Issued	Hours Worked Per YSYS Report Issued
Southbank Place	106	1,835
22 Bishopsgate	81	1,676
Bakerloo Line Link	75	224
BSCU	66	964
Wood Wharf	49	200
Hounslow Civic Centre	47	Missing Declarations
VSU	45	782
182 Bishopsgate	26	535
Interxion	23	1,534
Sunninghill	18	49
Selfridges	17	1,495
ARGO Global	13	Missing Declarations
Project Mural	12	Missing Declarations
ITV	11	564

TC Project	YSYS Reports Cards Issued	Hours Worked Per YSYS Report Issued
Southbank Pl. LU	11	277
Westfield Phase 2	10	4,858
1 Bank Street	6	Missing Declarations
IQL 9	6	1,386
Paddington New Yard	6	574
10 Fenchurch Avenue	6	2,479
TIQ 5	4	12,951
100 Bishopsgate	4	Missing Declarations
Head Office	3	Unattainable
Project Loop	3	829
Stansted Workshop	3	Missing Declarations
20 St. James'	3	3,875
STEM Building	2	Missing Declarations
TVC	1	4,240

Hours Worked Per each YSYS Reports Issued



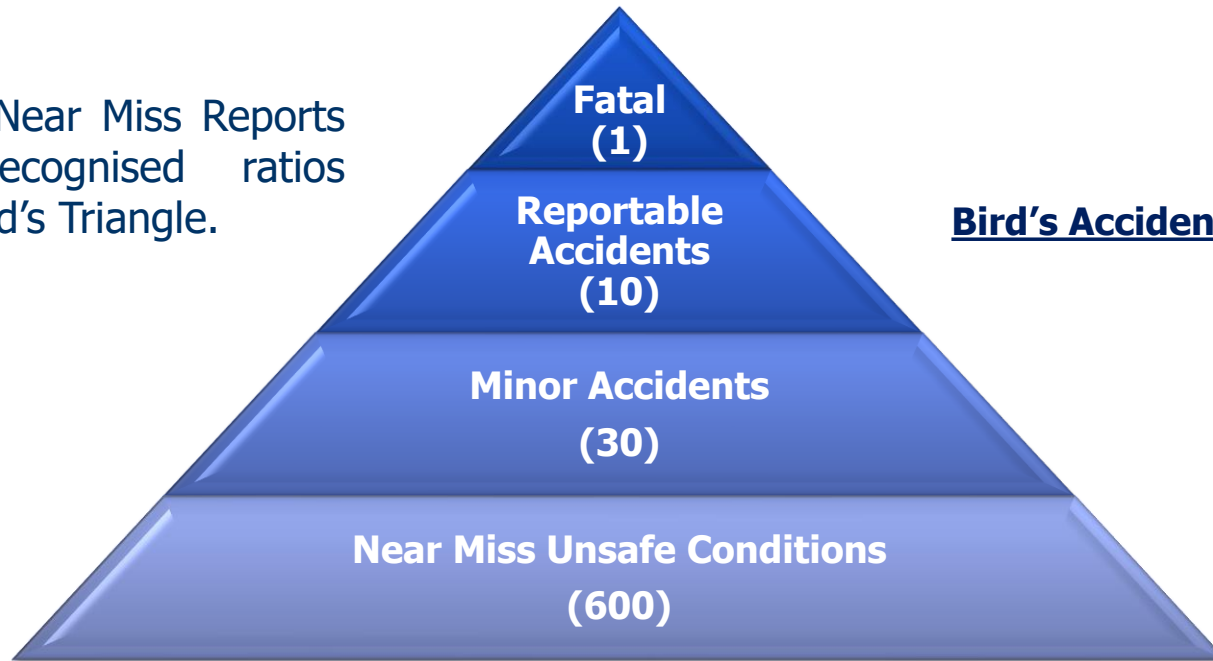
Near Miss Reporting

As stated, **657** 'You See, You Say' Cards were issued January – July 2018.

There were **694** issued for the same period of January – July last year.

There were **39** Accidents for the period of January – July 2018, so there should have been **780** You See, You Say/Near Miss Cards received, this is based on 'Bird's Accident Triangle'.

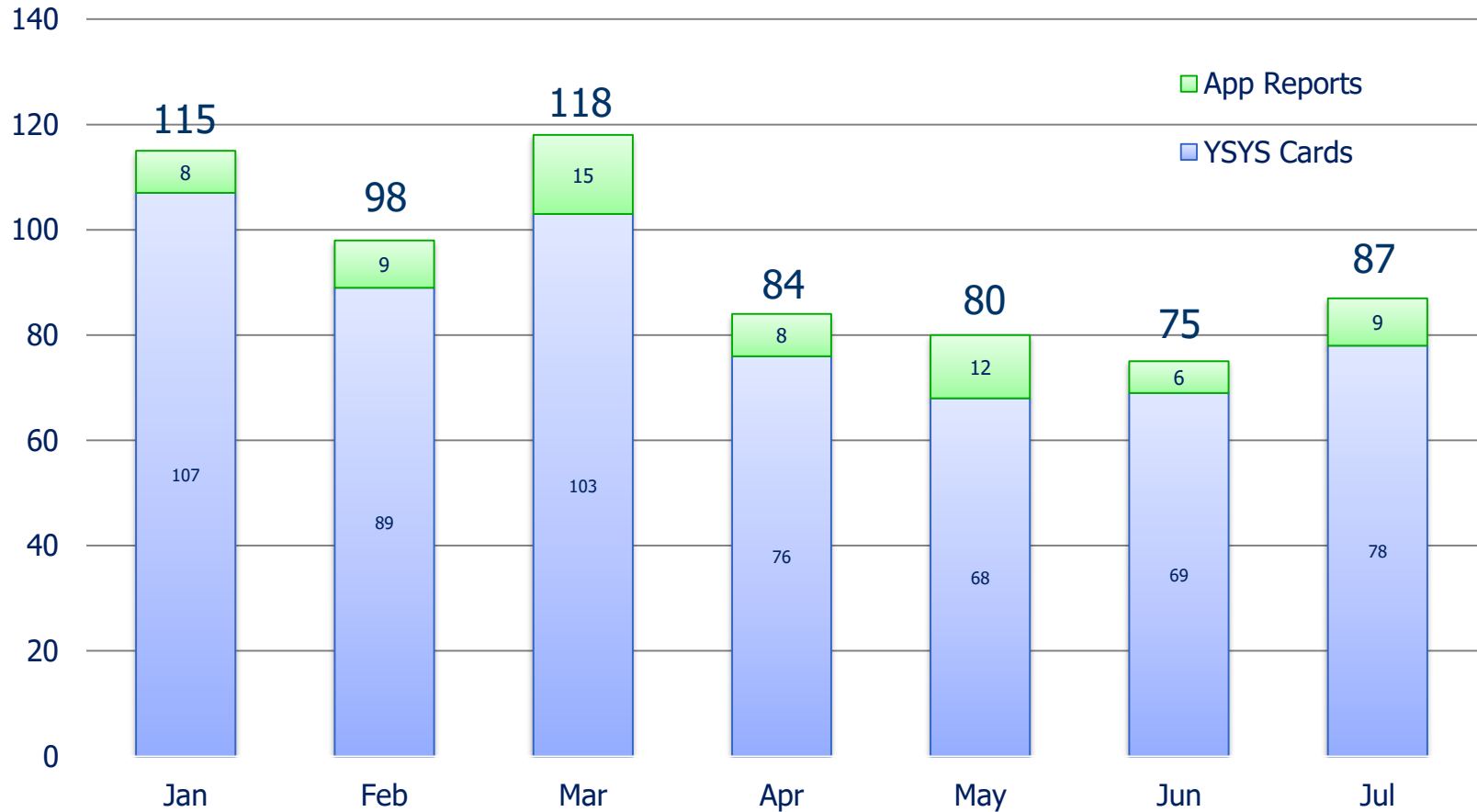
We were **123** Near Miss Reports below the recognised ratios identified by Bird's Triangle.



Bird's Accident Triangle

Near Miss Reporting

2018 YSYS Reports



Topics of Concern Arising from Site Inspections



Topics of Concern arising from Site Inspections/Audits



Inadequate Cable Rollers



Reading Glasses as Safety Eyewear



Spatial Awareness



Lack of Detail in H&S Documentation



Inadequate Safety Footwear



Fingerless Gloves for Wrong Application

Fingerless Glove Policy

TClarke operatives are permitted to wear fingerless gloves when:

They are undertaking 'fine', intricate and dextrous work that require the grip of the fingers that cannot be achieved using gloves with full finger protection.

These activities may include single core terminations, labelling, small nuts and bolts etc.

These gloves are to be issued alongside their everyday-use gloves (With Full Finger Protection) and are to only be worn whilst undertaking the type of work detailed above.

If operatives are seen wearing fingerless gloves for the wrong Application, they must be spoken to and advised of the correct procedure.

Fingerless Gloves are not suitable for everyday use.



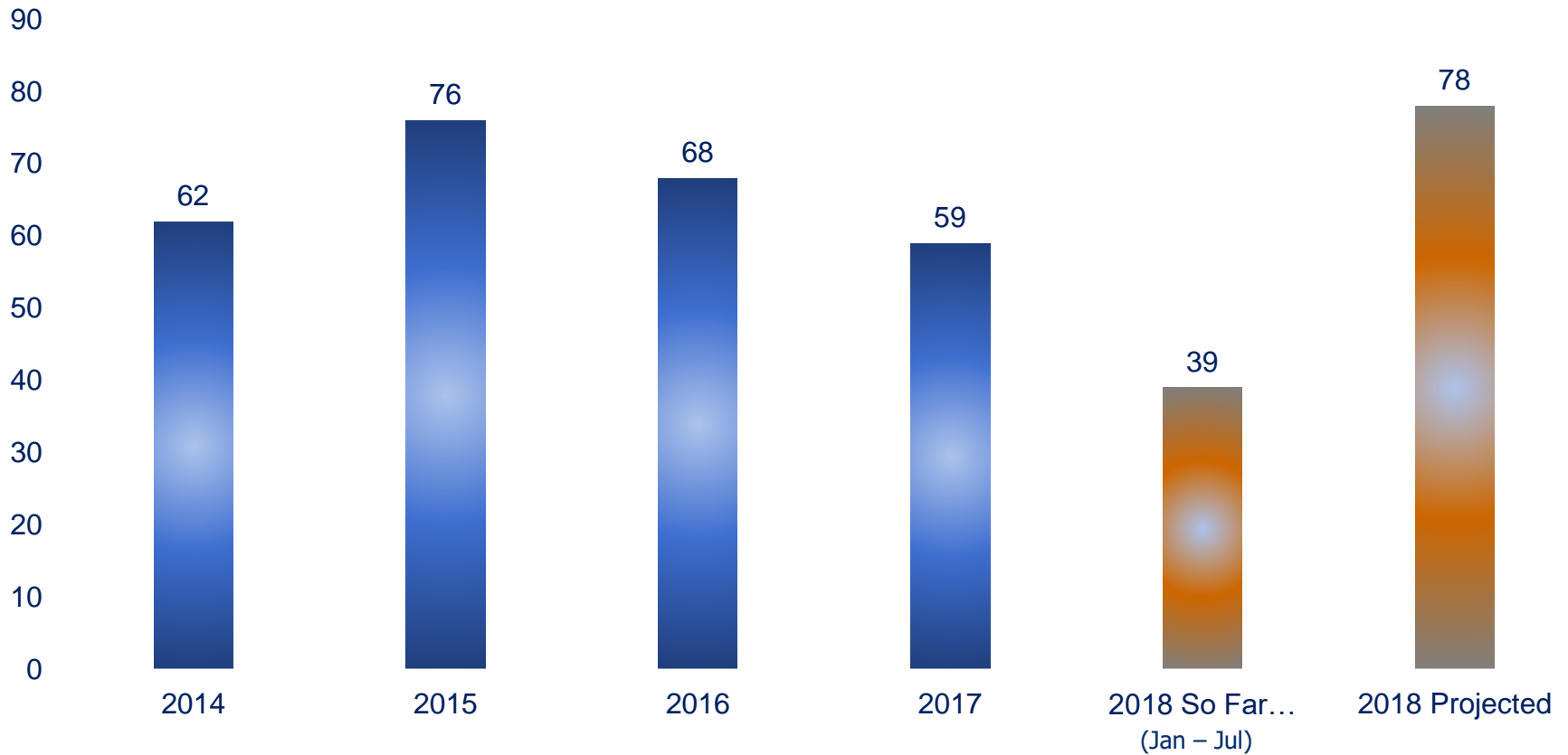
TClarke

Accident Statistics

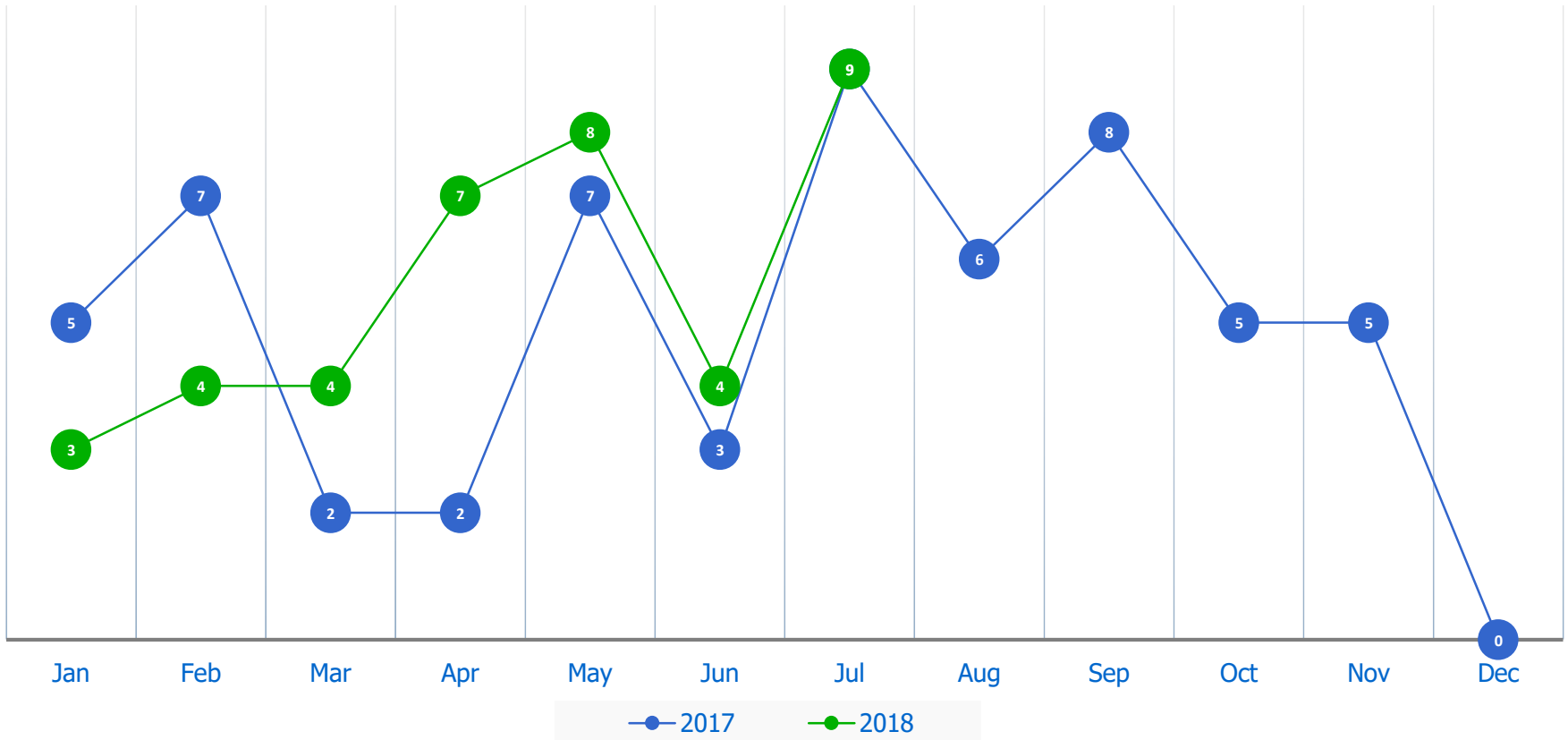


Annual Accident Statistics

London



Year Comparison – Accidents



Accident Overview

January – July 2018

39 Accidents						
January	February	March	April	May	June	July
3	4	4	7	8	4	9

RIDDOR Reportable:	RIDDOR Reportable:	RIDDOR Reportable:	RIDDOR Reportable:	RIDDOR Reportable:	RIDDOR Reportable:	RIDDOR Reportable:
0	0	0	0	3	0	1

Accident Overview

2017 35 Accidents						
January	February	March	April	May	June	July
5	7	2	2	7	3	9
RIDDOR Reportable:	RIDDOR Reportable:	RIDDOR Reportable:	RIDDOR Reportable:	RIDDOR Reportable:	RIDDOR Reportable:	RIDDOR Reportable:
0	1	0	0	0	0	1

↓ Compared to the same 7 Months of 2018 ↓

2018 39 Accidents						
January	February	March	April	May	June	July
3	4	4	7	8	4	9
RIDDOR Reportable:	RIDDOR Reportable:	RIDDOR Reportable:	RIDDOR Reportable:	RIDDOR Reportable:	RIDDOR Reportable:	RIDDOR Reportable:
0	0	0	0	3	0	1

Accident Overview

Projects that did not have an Accident within this Period

182 Bishopsgate	Reach Free School
Bakerloo Line Link	Thomson Reuters
Bloomberg	88 Lampton Road
BSCU	London Wall Place
Clearys	Stansted
ITV	Hannover
Lyric Square	150 Bishopsgate
Paddington New Yard	Project Loop
Virtus Lon	UCLH

Well Done to these projects!

Missing Declarations from Projects cannot be shown

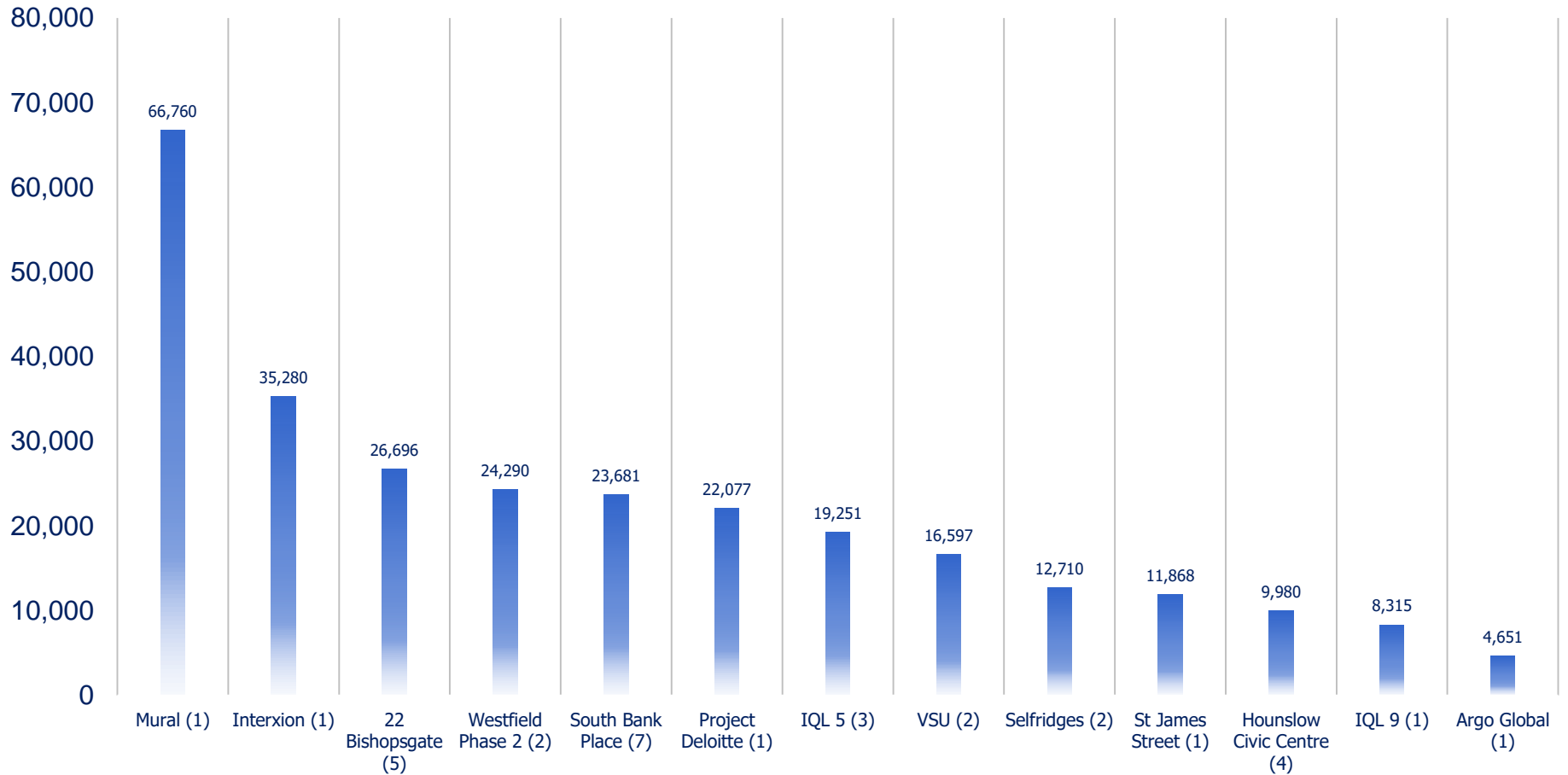
Accident Overview

39 Accidents in January – July 2018

Project Title	No. of Accidents	Principal Contractor
Southbank Place	7	Canary Wharf Contractors
22 Bishopsgate	5	Multiplex
100 Bishopsgate	4	Multiplex
Hounslow Civic Centre	4	Bouygues
IQL 5	3	Lendlease
Selfridges	2	Sir Robert McAlpine/BSB
VSU	2	Vinci
New Covent Garden	2	Vinci
Westfield Phase 2	2	Westfield
ARGO Global	1	Structuretone
Project Mural	1	Overbury
IQL 9	1	Lendlease
Interxion	1	Structuretone
Deloitte	1	Overbury
Head Office	1	TClarke
20 St. James	1	Structuretone
1 Bank Street	1	Canary Wharf Contractors

Accident Overview

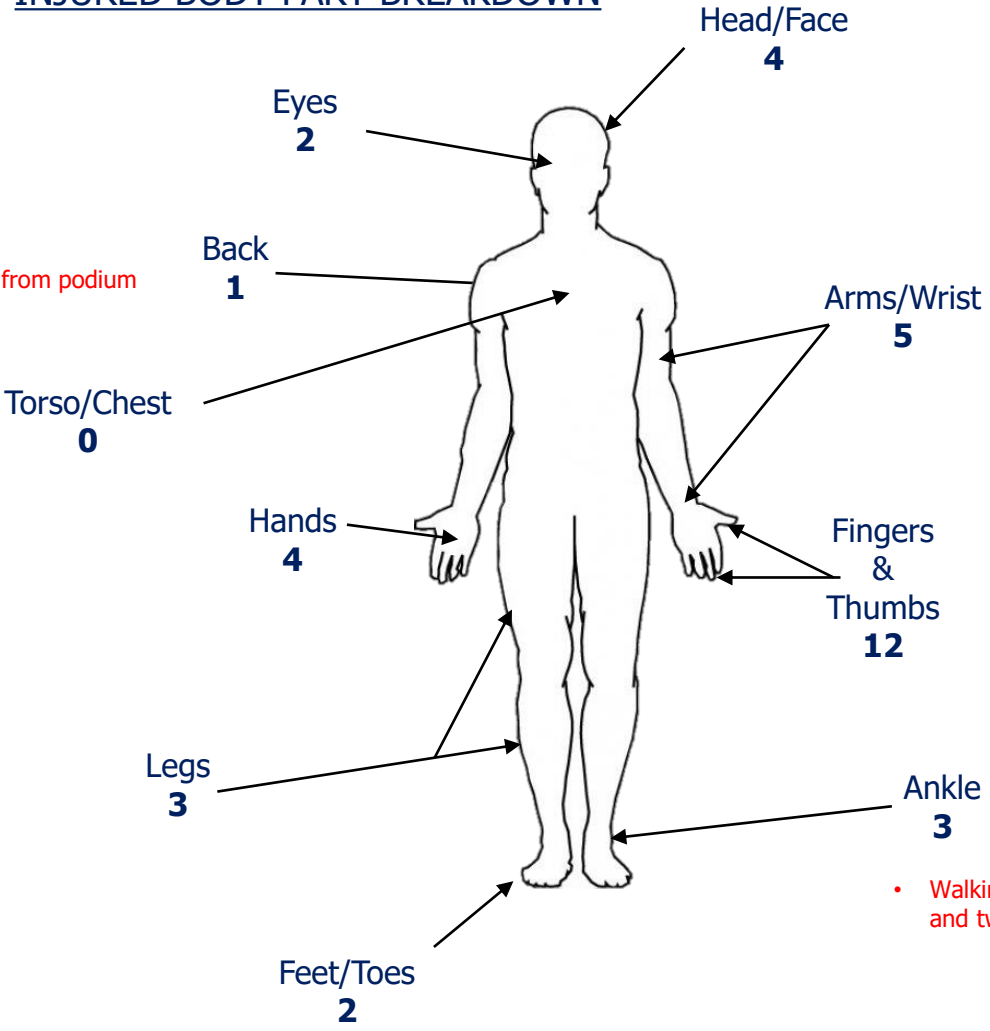
Of the projects that have had accidents, this is the amount of hours worked per accident:



Missing Declarations from Projects cannot be shown

Accident Overview

INJURED BODY PART BREAKDOWN



• IP fell backwards onto floor from podium (fracture) - RIDDOR.

• IP tripped over a loose partitioned stud causing him to fall – RIDDOR.

• IP tripped on the loose tile and fell on the floor – RIDDOR.

• Walking onto access ramp, IP tripped and twisted his ankle – RIDDOR.

Accident Overview

RIDDOR Breakdown

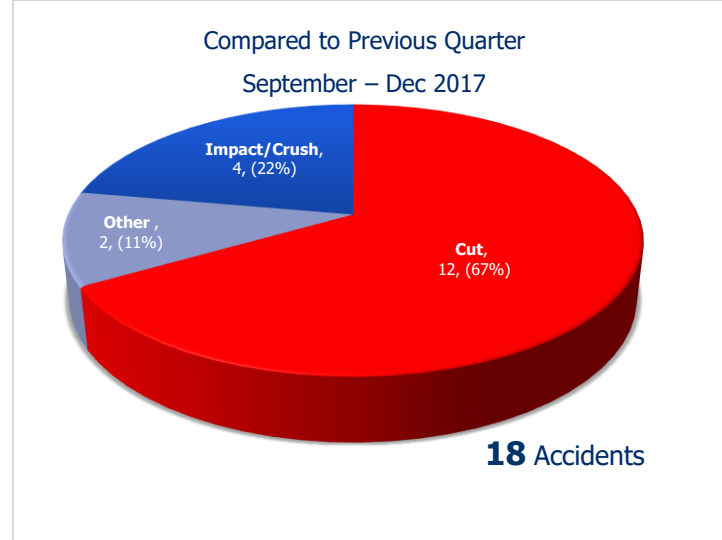
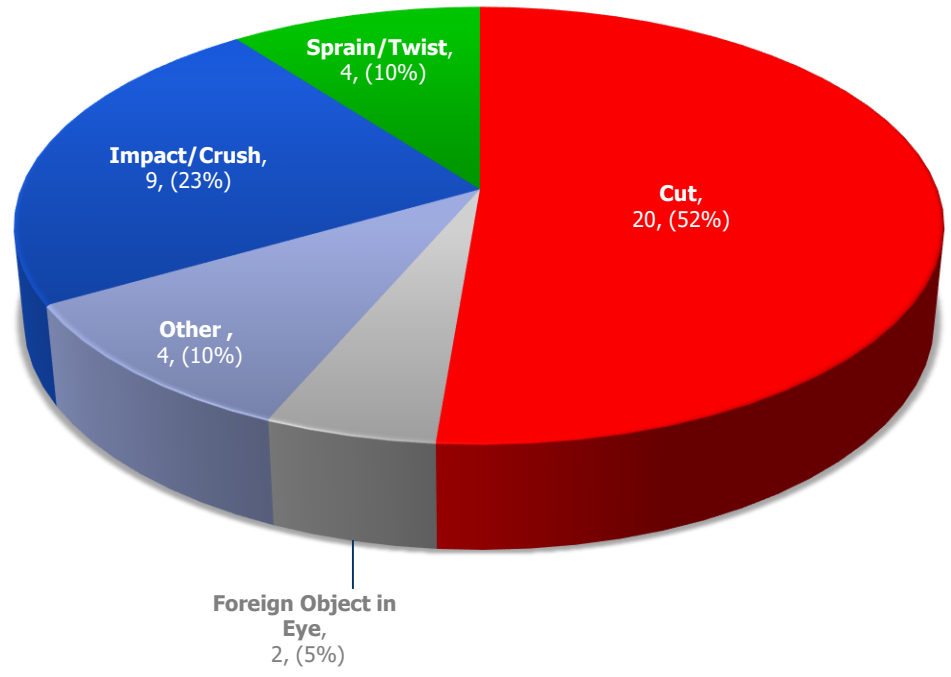
Date	Division	Injury	Causation
1 st May	Electrical Sub-Contractor (Daletech)	Fracture to Right Elbow	Tripped over partition wall stud
17th May	Electrical Sub-Contractor (ABEC)	Fracture to Lower Back	Tool knocked Podium Gate opened and IP fell backwards
17th May	Electrical Sub-Contractor (Daletech)	Sprain to Left Ankle (Over 7 Days)	Faulty temporary ramp caused IP to fall, twisted ankle.
July 25th	Electrical Agency (Shore Group)	Fracture to Right Thumb (Over 7 Days)	IP tripped on loose floor tile.

Accident Overview

39 Accidents

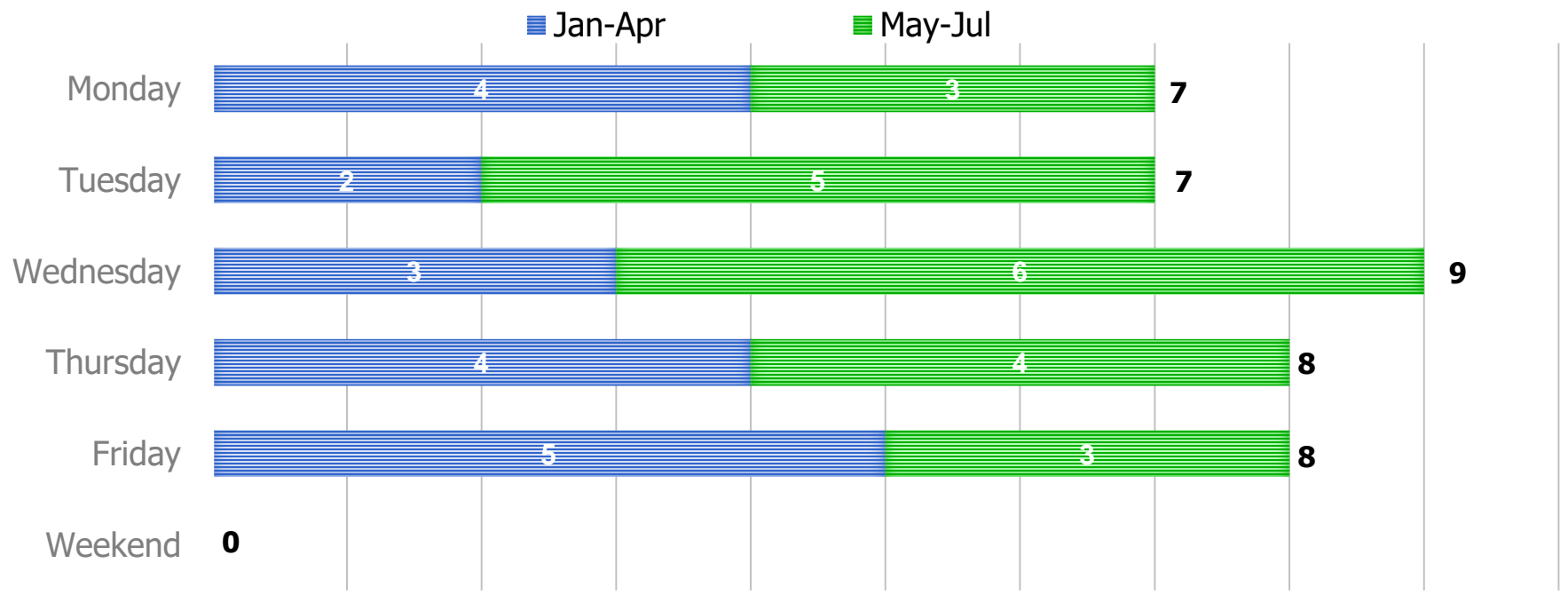
Jan – July 2018

Type of Injury



Accident Overview

Days of the Week

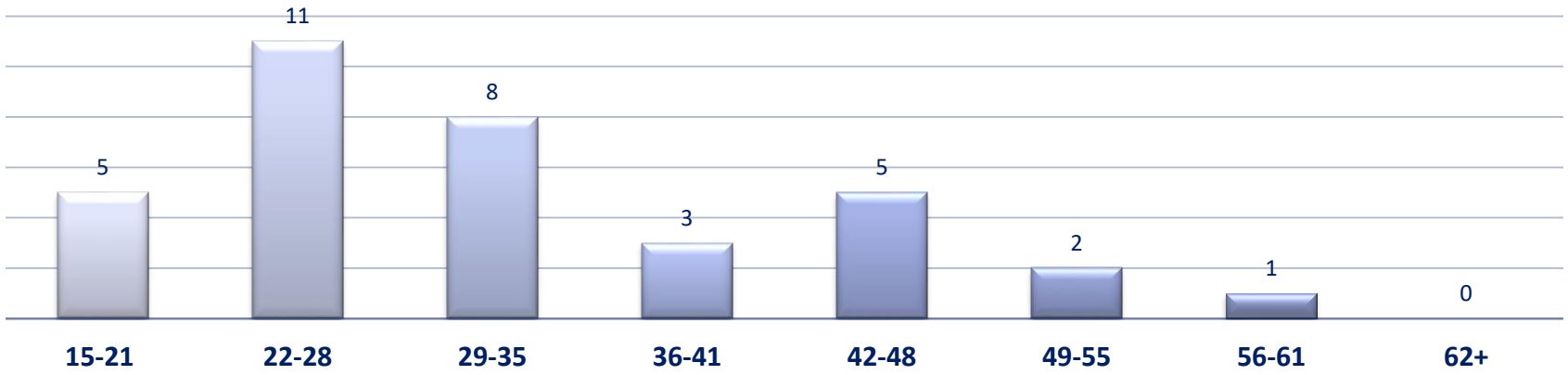


2016	2017	2018 Jan - Apr	2018 May - Jul
Thursday	Tuesday	Friday	Wednesday

Accident Overview

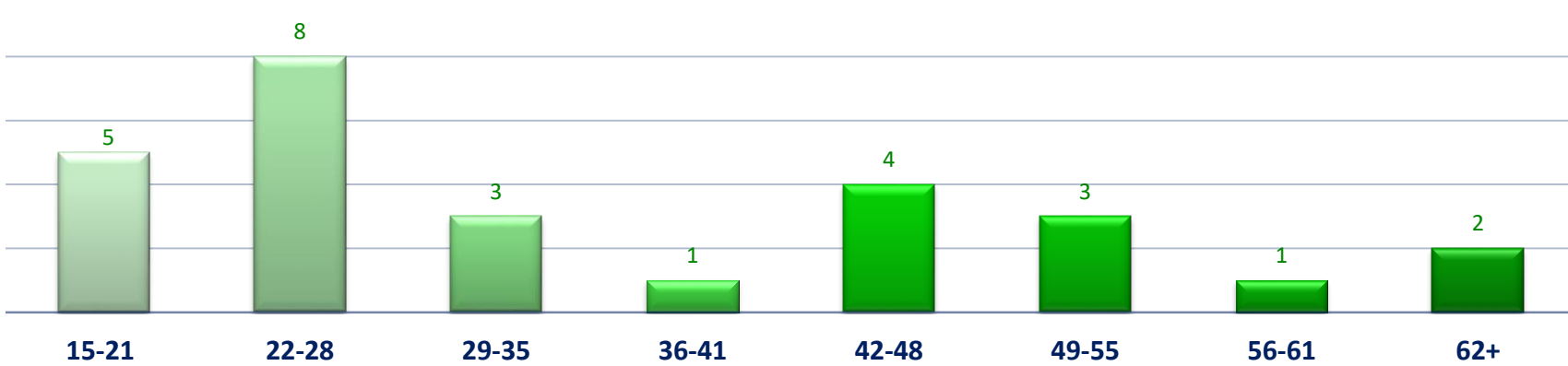
Age Bracket of Injured Persons

January – July 2018



3 Accidents without Age Details

The Last 6 Months (July – December 2017)

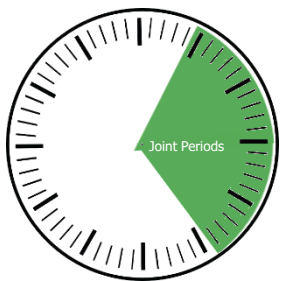


5 Accidents without Age Details

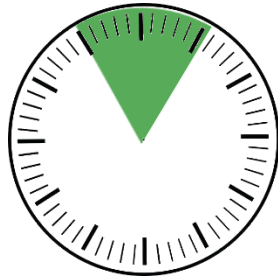
Accident Overview

Time of Accidents

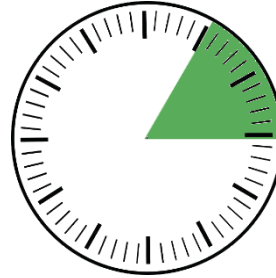
Previous 3-Month Quarters



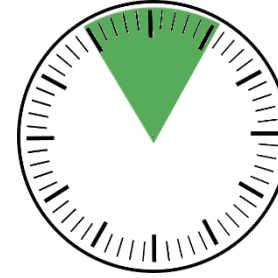
Mar – May 17



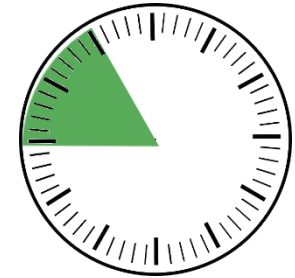
Jun – Aug 17



Sep – Dec 17



Jan – Apr 18



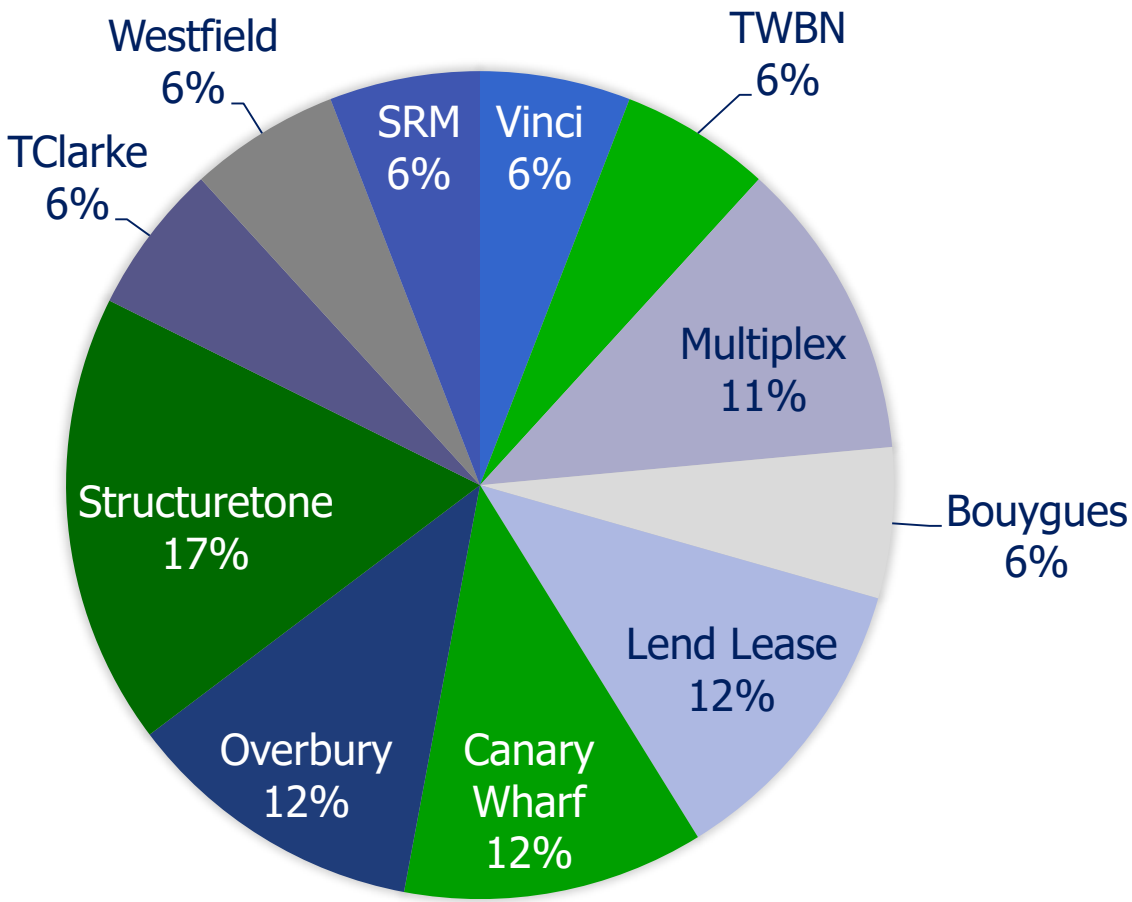
May – Jul 18

← 2017 →

← 2018 →

Accident Overview

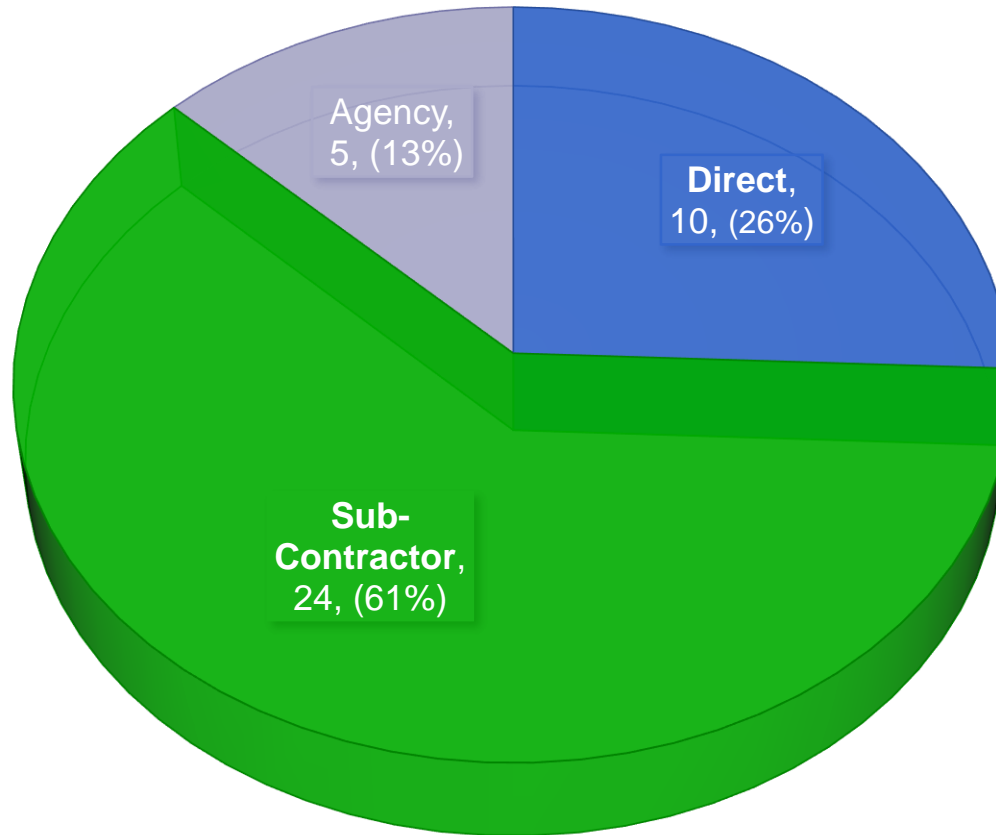
Accident Breakdown – Per Principal Contractor



Accident Overview

Accident Breakdown - Employment Status

Direct	10
Sub-Contractor	24
Agency	5



Health & Safety Infringements



Safety Incident Notices issued by TClarke for January – July 2018

37 For **Bad** Practice

66 For **Good** Practice

Safety Incident Notice

Bad Practice Breakdown

12 No. PPE Non-Compliance

10 No. Unsafe Acts

10 No. Non-Adherence to Safety Procedures

5 No. Misuse of Access Equipment

Safety Incident Notice

Good Practice Breakdown

34 No. Following a Safe System of Work

17 No. PPE Compliance

14 No. Adherence to General Safety Procedures

1 No. First Aid Response

Legislation Update



- Sentencing Guidelines

- GDPR

H&S Awards



TClarke

YOU SEE, YOU SAVE ECONOMY FOR ALL SUCCESS IS IN SAFETY

H&S Awards

Paddington Bakerloo Line

TFL Beacon Site Award

Green Apple

CEEQUAL Award

Considerate Constructors Beyond Compliance

Westfield

Canteen Vouchers

Southbank

Canteen Vouchers

22 Bishopsgate

Certificate of Excellence – Quality of Install and H&S Culture when Working

Individual Award for H&S Contribution

Hounslow

Act Safe Leader (Monthly Winner)

+ iPad Monthly Awards

Any Other Business Over to You!



Thank You for Your Attendance & Comments today

The Minutes for this meeting will be issued and accompanied by the Tool Box Talk Version

The date of the next SHE Committee will be communicated via e-mail

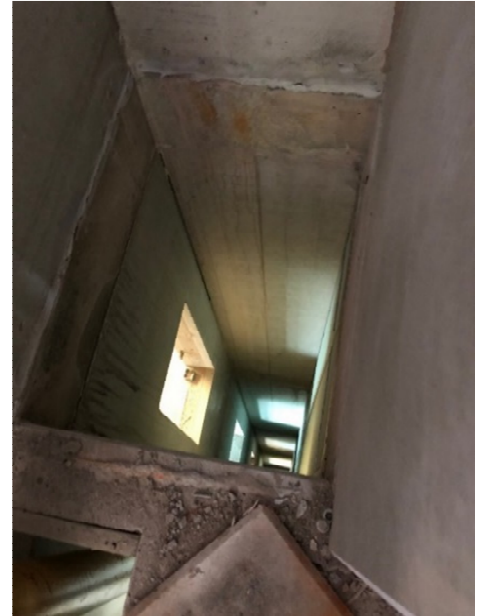
Meeting Closed

TClarke SHE Meeting Minutes – Tool Box Talk (August 2018)

The Meeting was opened by Marc Bailey (Technical Director – Group H&S), and apologies were given by those who could not attend.

Problems & Solutions

- Pre-Enrolment questionnaires are becoming more common and are prevalent on a number of current projects. Please be aware that you may be requested to complete a pre-enrolment questionnaire before attending a new project.
- TClarke will be introducing a one-hour 'Culture Catch Up' presentation to act as a reminder of the TClarke Procedures we have in place. This presentation will be rolled out across the Organisation.
- TClarke have been notified of a number of recent failures at various 'Drugs & Alcohol' testing on a number of projects. Please be aware that a lot of projects are doing Drugs & Alcohol Testing as part of the induction process, and that you may also be subject to random testing, or 'for cause' testing by TClarke. The presence of Drugs & Alcohol can seriously affect your own, and others Health & Safety on-site, and you must ensure that you are 'fit to work' and not under the influence.
- A Recent incident saw a TClarke operative almost fall down a 6 storey Riser, due to the unauthorised tampering of a guardrail by operatives from another Trade Contractor. The operatives had loosened the guardrail to install their equipment but had not secured it once complete, nor did they have the required competence to undertake such alterations. Fortunately, the TClarke operative stopped himself from falling (area shown right), but it does act as serious reminder why to not interfere with any safety equipment, and to always ensure you have the correct training before undertaking a task.
- All operatives are reminded of the TClarke 'Dragon's Den' scheme where any individual can submit an idea that could improve the overall H&S of their work area, save the company money or increase efficiency, and stand the chance of winning recognition & prizes if the scheme is suitable for the Organisation. Speak to your Supervisors if you wish to submit an entry.



3 No. Workforce Engagement Cards were received and responded to as follows:

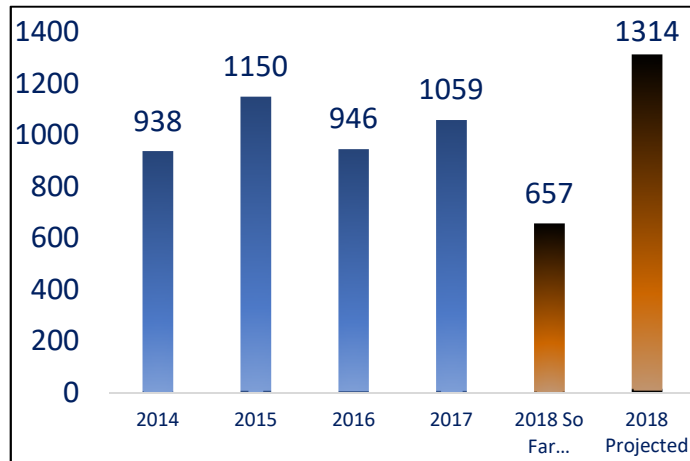
Have Your Say Card	TClarke Response
Regular Health Checks for operatives, especially those working nights over long periods. Site visits from Senior Management to talk to operatives about the conditions and environments they work in, to see what improvements and initiatives can be made.	The JIB are members of Constructing Better Health (which TClarke were instrumental in achieving). As such, if you are a JIB member you are entitled to a Health Check. Site visits should take place as suggested, however improvement or initiatives can be made through the TClarke's Dragon Den or the H&S Department direct.
Training like having MEWPs etc. should be on-going with having operatives always trained (not just down to the job you are on), coming from a firms pool of safety funds from all jobs.	TClarke spend approximately £21k per year on various MEWP/IPAF Training for both direct and sub-contract labour. On-going competence and refresher training would be a lot easier to achieve if operatives maintained their IPAF Log Books, but that is another issue previously discussed. Unfortunately, although having people trained and ready to use equipment in this instance is a great idea, the cost of doing so (wherever the money is derived) is not going to happen. Not everybody needs to be trained at all times which makes the cost prohibitive
There was a discussion some time ago regarding 1 st step personnel attending a TClarke safety induction. Has there been any progression on this? We believe it would be beneficial for personnel placing labour on site to have a first-hand induction and/or site visit to ensure tat the safety message is followed throughout.	As previously detailed we intend to ensure all TClarke key personnel and those of our supply chain receive the 'TClarke Culture Catch Up' induction, to ensure that a constant message with regards to TClarke's Health and Safety undertakings is maintained across the business.

Environmental

There have been no Environmental Legislation updates.

Near Miss ` You See You Say Reporting

There were **657** You See You Say Reports issued between January – July 2018. The total for 2018 is expected to reach **1,314** if we continue at the same rate.



Projects with a good ratio with regards to YSYS Report issued per Hours worked, include:

- Sunninghill
- Wood Wharf
- Bakerloo Link Line
- Southbank Place Building 3
- Bank Station Capacity Upgrade
- Project Loop
- 22 Bishopsgate
- Victoria Station Upgrade
- ITV
- Paddington New Yard

Thank you to all those who continue to issue You See, You Say Cards, and proactively engage in the TClarke H&S Culture by identifying hazards within the workplace.

It is worth noting that the YSYS Cards are still preferred as a method of reporting compared to the YSYS App. (YSYS Card 90% App Reports 10%)

Topics of Concern Arising from Site Inspections

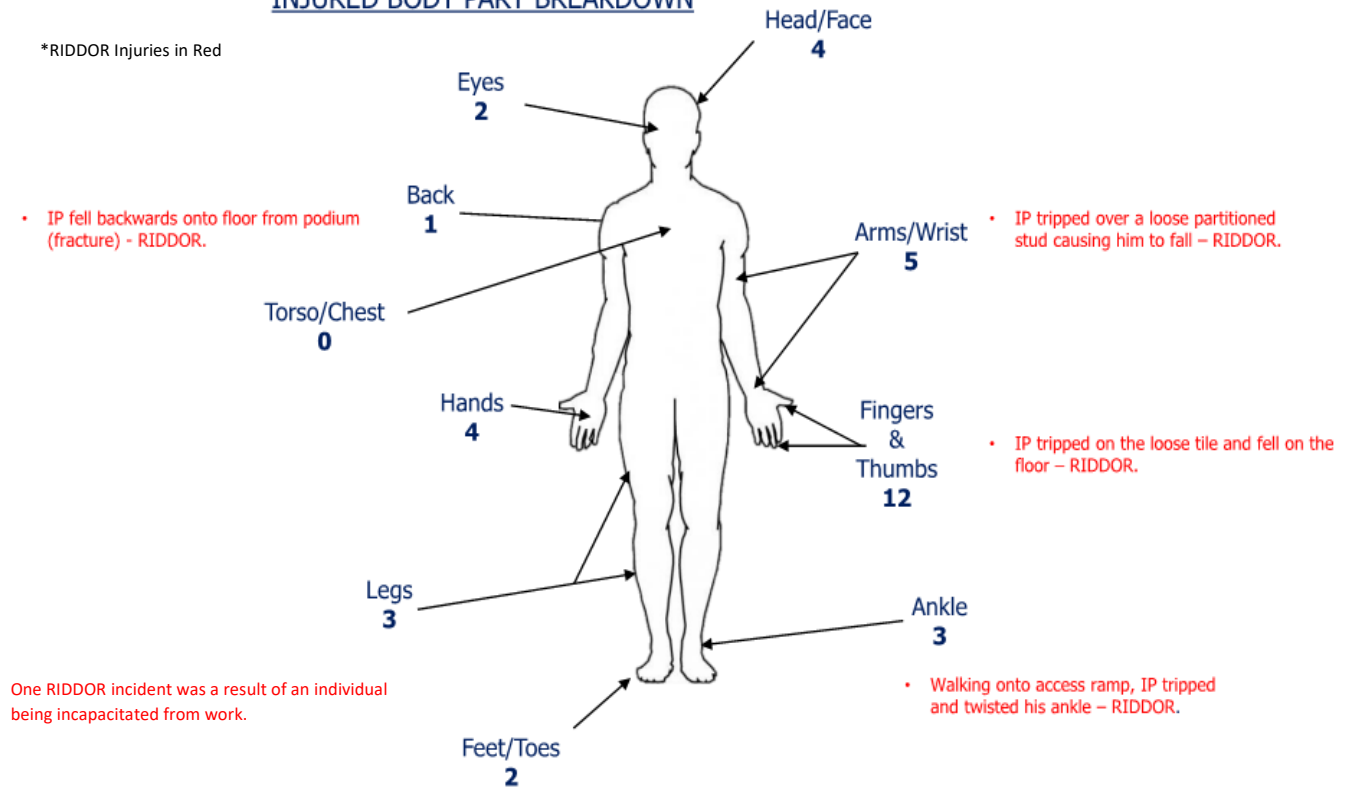
Inadequate Cable Rollers -	Only suitable Cable Rollers/Spoolas should be used. Conduit Benders and self-made jacks are not to be used.
Reading Glasses as Safety Eyewear -	Reading glasses do not constitute safety eyewear. Prescription polycarbonate lenses must be worn, or failing that, Over-Glasses.
Spatial Awareness -	A number of recent incidents regarding lack of spatial awareness have been identified recently. All individuals must ensure their work area is clear from hazards before starting work.
Lack of Detail in H&S Documentation -	All personnel must ensure that H&S documentation is thorough and applicable to the task in hand.
Inadequate Safety Footwear -	To Work on a TClarke project you must have Safety Boots with toe, midsole and ankle protection. They must be one of the following specification SB-P, SP-1, S3 or S5 (found on the inside 'tongue' of the boot).
Fingerless Gloves -	Fingerless gloves are required for certain situations. However, there are only certain allowances where fingerless gloves are permitted. The TClarke Policy is as follows: Fingerless gloves are permitted when operatives are; <i>"undertaking fine, intricate and dexterous work that requires the grip of the fingers that cannot be achieved using gloves with full finger protection."</i> <i>eg; single core terminations, labelling, small nuts and bolts ect".</i>

Once the works being undertaken are completed full fingered gloves must be put back on. The cutting of the fingers on gloves is **not permitted.**

Accident Statistics

There have been **39** accidents this year so far (January – July). **4** of these accidents have been a RIDDOR Reportable injury.

INJURED BODY PART BREAKDOWN



Safety Incident Notices (SINS)

66 GOOD PRACTICE SINS

34 for Following Safe Systems of Work
 17 for PPE Compliance
 14 Adherence to General Safety Procedures
 1 for First Aid Action

37 BAD PRACTICE SINS

12 for PPE Non-Compliance
 10 for Unsafe Acts
 10 for Non-Adherence to Safety Procedures
 5 for Misuse of Access Equipment

H&S Awards

Congratulations to those who have won the following awards:

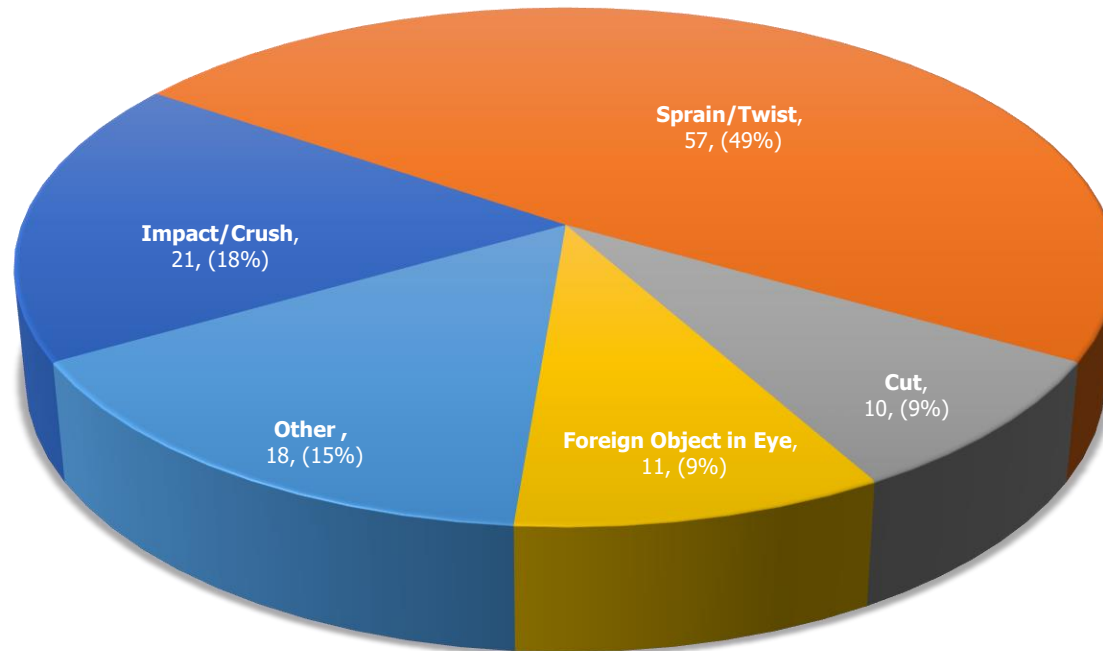
<p><u>Paddington Bakerloo Line</u> TFL Beacon Site Award Green Apple CEEQUAL Award Considerate Constructors Beyond Compliance</p>	<p><u>Southbank</u> Canteen Vouchers</p>
<p><u>22 Bishopsgate</u> Certificate of Excellence – Quality of Install and H&S culture Individual award for H&S Contribution</p>	<p><u>Westfield</u> Canteen Vouchers</p>
	<p><u>Hounslow</u> Act Safe Leader (Monthly Winner)</p>
	<p>+ <i>Ipad Monthly Awards</i></p>

The Meeting was closed by Marc Bailey who thanked all attendees for their contribution.

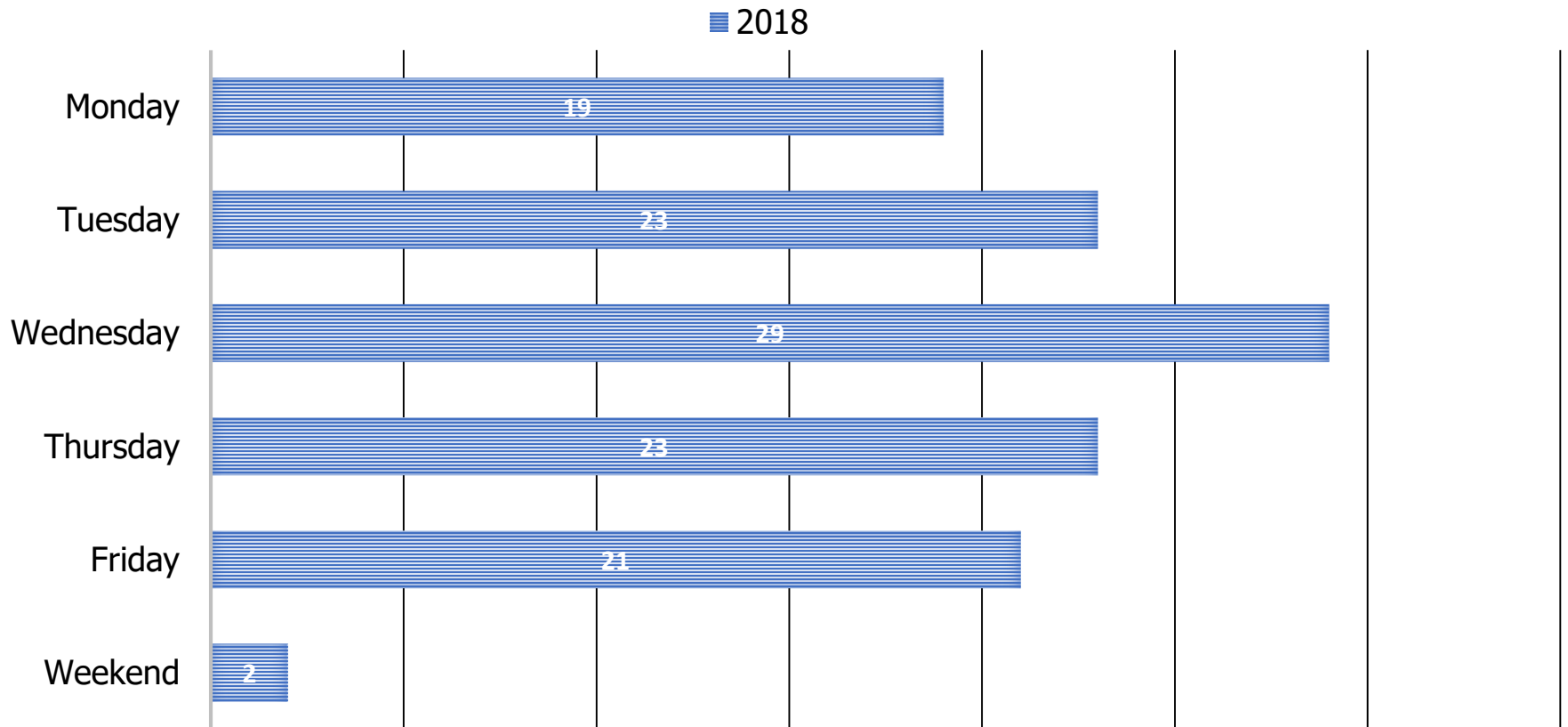
TClarke Group Accident Statistics 2018

	January		February		March		April		May		June		July		August		September		October		November		December		Total	
	Accidents	RIDDOR	Accidents	RIDDOR	Accidents	RIDDOR	Accidents	RIDDOR	Accidents	RIDDOR	Accidents	RIDDOR	Accidents	RIDDOR	Accidents	RIDDOR	Accidents	RIDDOR	Accidents	RIDDOR	Accidents	RIDDOR	Accidents	RIDDOR	Accidents	RIDDOR
London	3	0	4	0	4	0	7	0	8	3	4	0	9	1	10	0	4	0	6	0	2	0	3	1	64	5
Midlands	3	0	0	0	0	0	2	0	1	0	1	0	3	0	0	0	1	0	2	1	2	0	1	0	16	1
East	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
South East	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
South West	0	0	1	0	0	0	1	0	2	1	1	0	3	0	2	0	1	0	1	0	2	0	0	0	14	1
Leeds	0	0	1	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	3	0	0	0	8	0
Newcastle	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
North West	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0
Scotland	0	0	1	0	1	0	0	0	1	0	0	0	0	0	1	0	2	0	1	0	2	0	0	0	9	0
TOTAL	6	0	7	0	6	0	11	0	13	4	9	0	15	1	14	0	8	0	11	1	12	0	4	1	116	7

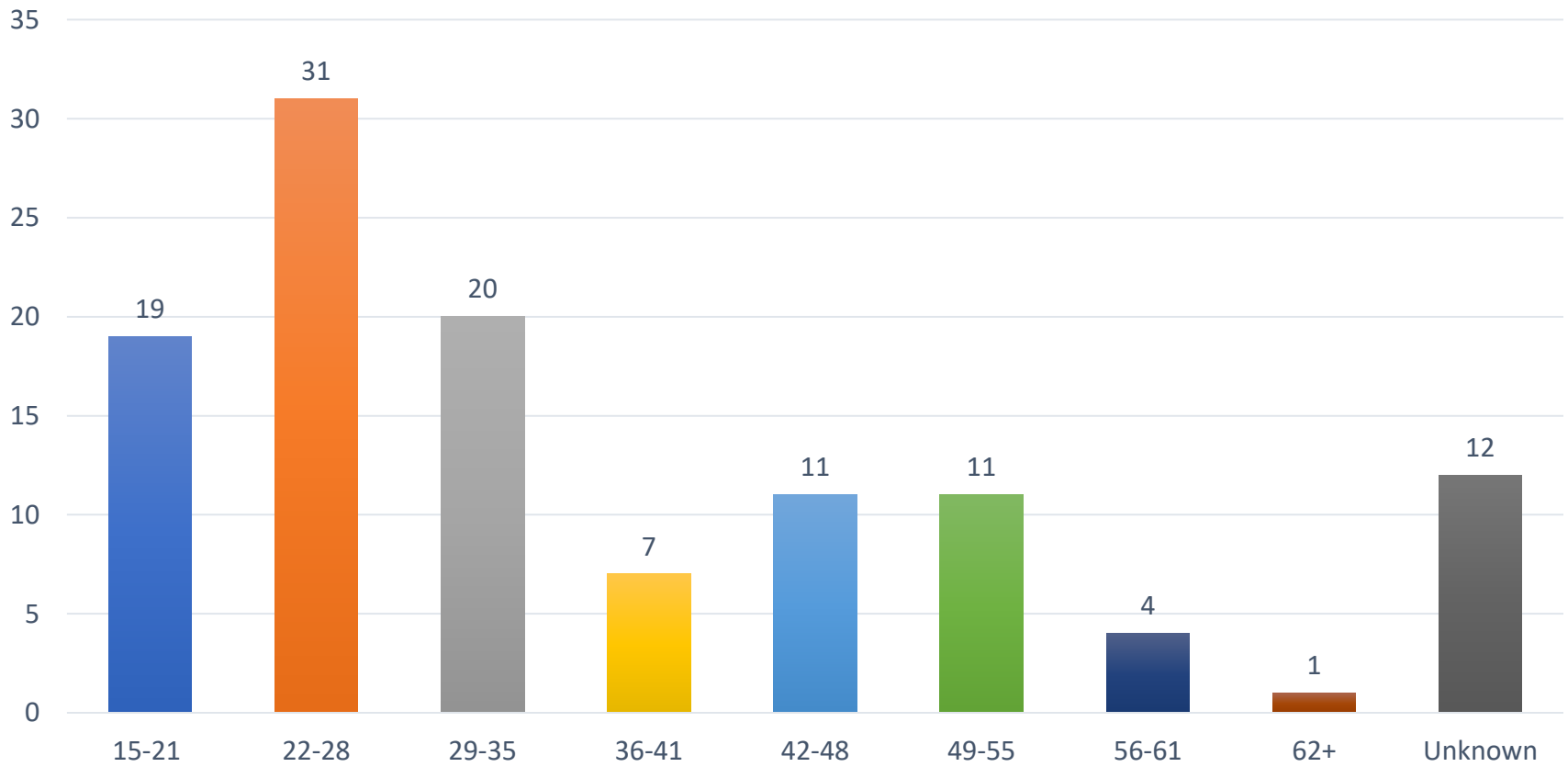
Types of Injury



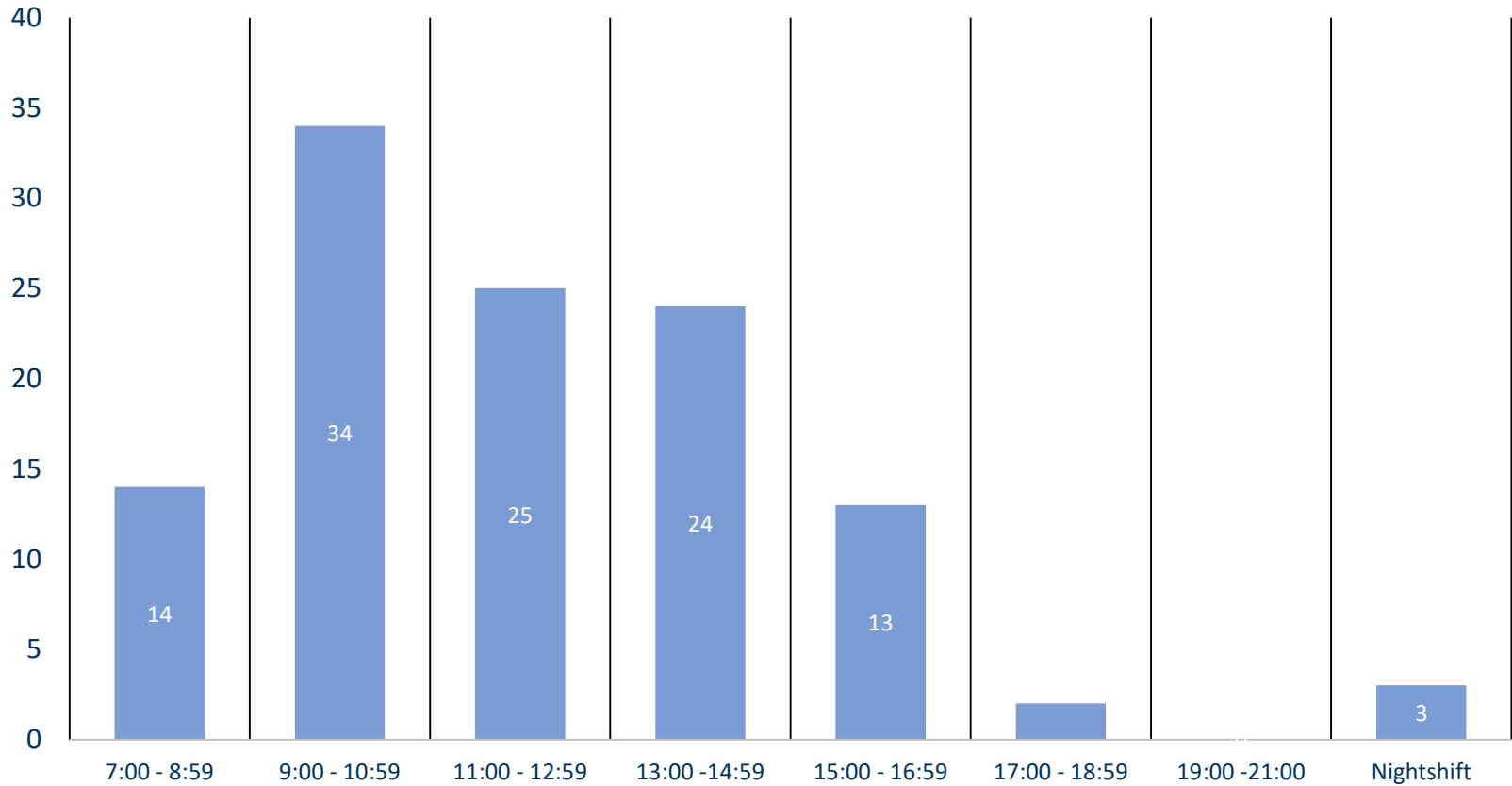
Days of the Week



Age Categories of Injured Persons

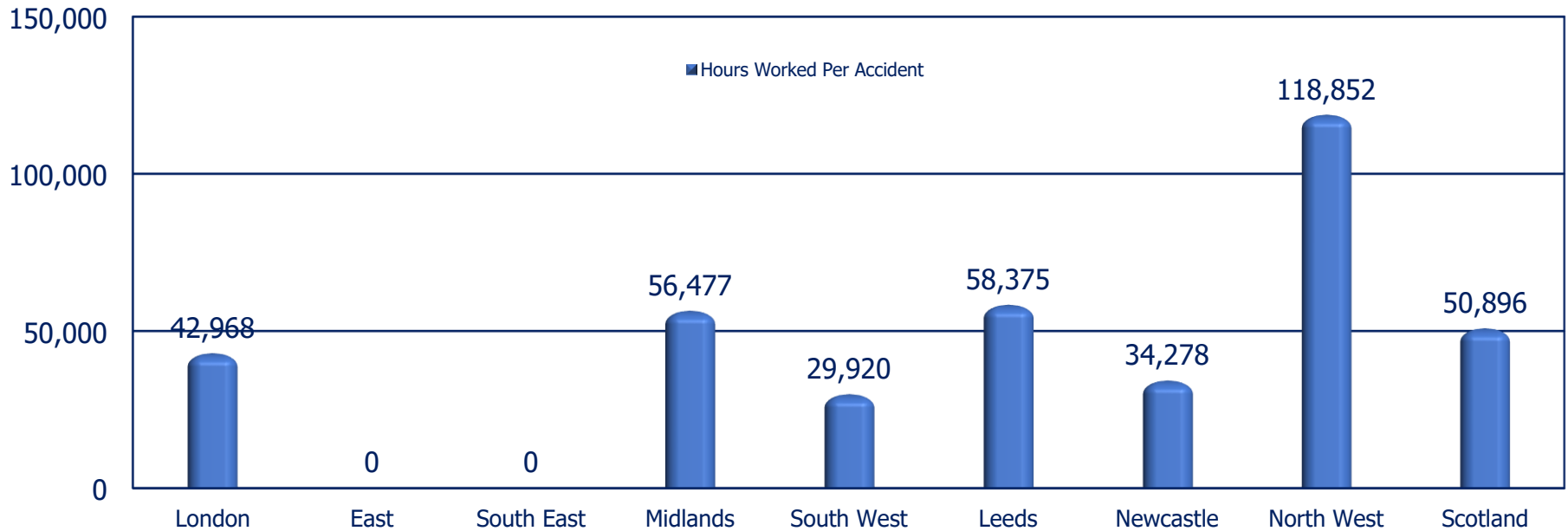


Time of Accidents



TClarke

	London	East	South East	Midlands	South West	Leeds	Newcastle	North West	Scotland
May 2018 – Sep 2018									
Accidents	64	0	0	16	14	8	2	3	9
Man Hours Worked	2,750,000	126,640	61,824	903,644	418,880	467,003	68,556	335,556	458,072
Hours Worked Per Accident	42,968	0	0	56,477	29,920	58,375	34,278	111,852	50,896

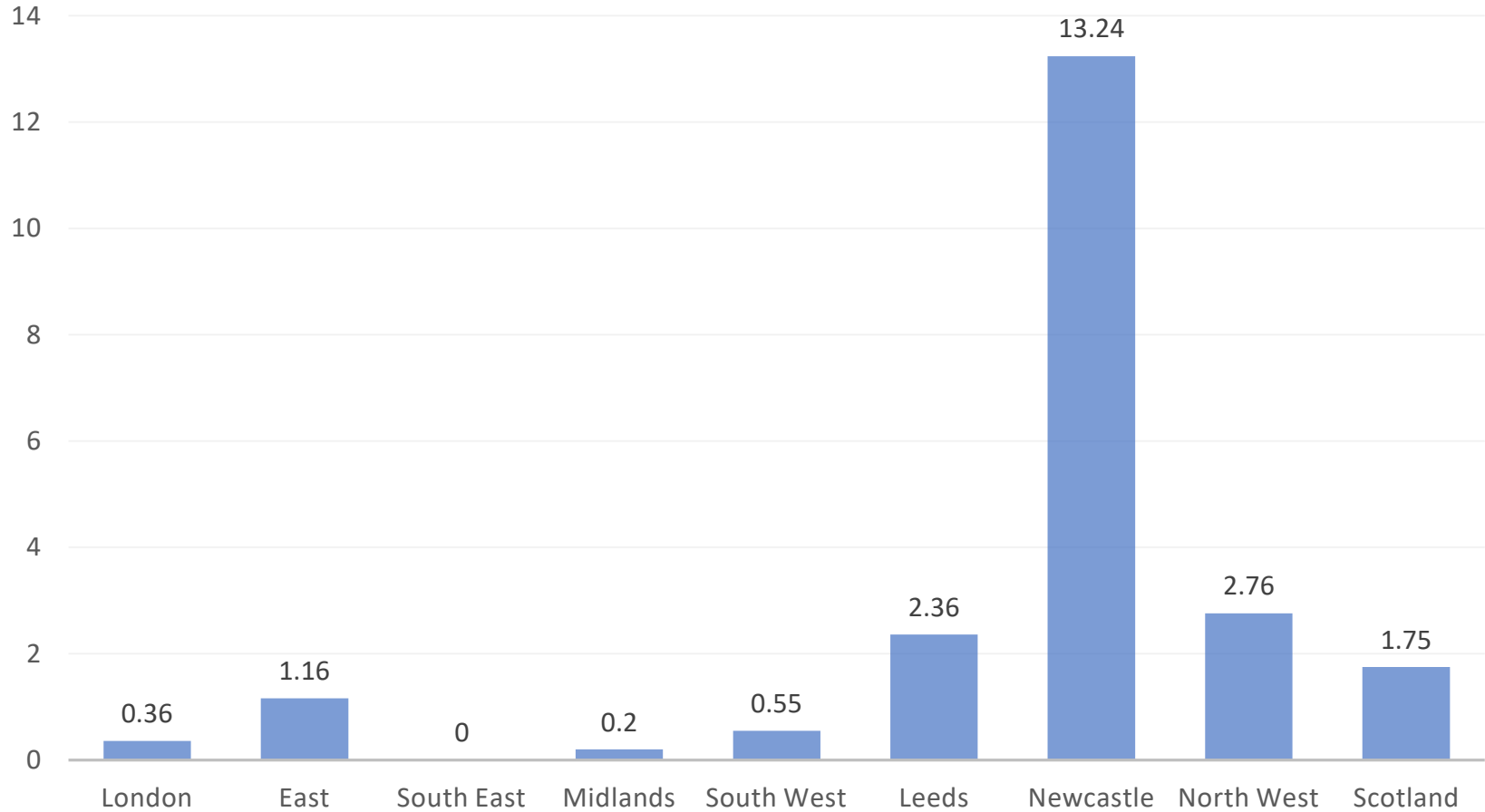


TClarke

Group Wide You See, You Say Statistics 2018

	January	February	March	April	May	June	July	August	September	October	November	December	TOTAL
TClarke London	115	98	118	84	80	75	87	100	71	63	66	52	1009
TClarke South East	0	0	0	0	0	0	0	0	0	0	0	0	0
TClarke East	0	1	0	40	43	20	14	7	8	8	7	0	148
TClarke Midlands	8	19	12	12	20	18	18	7	3	25	35	7	184
TClarke North West	69	72	63	55	55	55	117	84	113	122	78	44	927
TClarke Newcastle	105	128	73	98	75	54	82	42	57	86	72	36	908
TClarke South West	11	17	26	32	17	14	32	21	7	25	16	15	233
TClarke Leeds	107	67	59	69	97	137	121	104	67	97	90	90	1105
TClarke Scotland	50	55	54	51	60	124	95	84	66	70	57	36	802
TOTAL	465	457	405	441	447	497	566	449	392	496	421	280	5316

Amount of YSYS Cards issued per Region per 1,000 Hours Worked



TClarke

In association with

Green-Hearts Mindfulness & Meditation

Mental health is a major issue in our society today. As such, TClarke are pleased to announce a new partnership with Green-Hearts, and your attendance is required and welcomed at a free 'mindfulness and meditation techniques' session. Its intention is to help improve and then maintain a healthy state of mind. Green-hearts strategies will help you to cope better with the pressures of modern-day living. The sessions are easy and effortless to do, and the benefits are profound.



TClarke - Free 1 Hour Session

(Between 4-5pm Weekdays by Invitation only)

AIM: An introduction to Mindfulness and how it can help relieve the mind of stress.

OBJECTIVES: By the end of the session people will have a better understanding of:

- How negative and positive thoughts effect our mental and physical health.
- How to stop obsessive negative thoughts.
- How to act positively rather than react negatively to situations.
- How to let go of past hurts and have not fear about the future.
- Be taught a breathing technique to help promote a calm and peaceful state of mind.
- Be offered a square breathing technique card.
- Be offered a leaflet with other mindfulness techniques.

Our thoughts control how we feel, we cannot stop our thoughts. Trying to stop them is like trying to stop the wind, it can't be done! However, just as you can step inside and observe the wind without it affecting you, you can step aside from your thoughts as if they are chatting away in another room not affecting you. The mind is like a pond, your thoughts churning up the water making it murky, so nothing can be seen clearly. Let the water be still and the mud will settle at the bottom and all can be seen. By learning to settle your mind and be still, in that stillness you too will start to see clearly. It was once said, "what you think you will become."

**Look out for your invite in the next couple of months and
Start to take control of your mind rather than your mind controlling you**

World Mental Health Awareness Day 2018

Ring, Ask, Listen

Mental health problems can affect anyone, any day of the year, but the 10th October 2018 is World Mental Health Day and a great day to show your support for better mental health and start looking after your own mental health and wellbeing.

An individual's mental health is just like physical health: everybody has it and we certainly need to take care of it!

Mental health problems affect around one in four people in any given year. The issues range from common problems, such as depression and anxiety, to rarer problems such as schizophrenia and bipolar disorders.

We all need to take care of our mental health and wellbeing regardless of whether we have a mental health problem or not.

Mental wellbeing describes how you are feeling and how well you can cope with your day-to-day life. This mental state can change from moment to moment, day to day, month to month and even year to year.

There are five easy steps to take to improve our own wellbeing and mental health:

1. Eat Healthier
2. Sleep More
3. Reduce Alcohol Content and Avoiding Drugs
4. Exercising
5. Socialise - Speak to your family and friends

If you're in good mental health, it means you are able to;

- Make the most of your potential
- Be better equipped to deal with tasks on a daily basis,
- Play full part in family, workplace, community and among friends.

TClarke recognise the importance of your Mental Health and have trained a number of Mental Health First Aiders to help and assist where required.

REMEMBER: IF YOU HAVE MENTAL HEALTH DIFFICULTIES, OR SUSPECT ANYONE ELSE DOES,

Just **RING, ASK, LISTEN (RAL)**



Marc Bailey
0207 9977 4425

Chris Powell
0207 9977 7437



Josh Bourne
0207 9977 428

Monika Stanislawska
0207 9977 427



Luke Callinan
0207 9977 429

Maggie Lanchester
0207 9977 7438



TClarke

TClarke Staff & Employees Mental Health and Well Being Policy

Revision 2

January 2018

Contents

1 Introduction

2 Policy Statement

3 The Purpose of the Policy

4 Definitions and Terminologies

5 Interactions with Other Policies

6 TClarke Responsibility

7 Employee Responsibility

8 Other Sources of Support

Appendix A – Frequently Asked Questions & Answers

TClarke Mental Health and Well Being Policy

1. Introduction

TClarke recognizes that mental health is as important as physical health and are aware of the statistics which confirm that, on average, one in four people will experience a mental health difficulty during any given year and that such issues may cause real and lasting damage to an individual. TClarke also recognizes that most people who experience mental health difficulties will recover or learn how to manage their symptoms, especially if they receive support as early as possible.

This Policy applies to all TClarke employees and aims to ensure that they are all appropriately supported in their workplace.

The Policy supports and is aligned with other TClarke policy's and guidance.

2. Policy statement

It is the policy of TClarke to:

- Promote mental health and wellbeing through its management policies, support services, information networks and regular Health & Safety campaigns (including alcohol awareness, diet, exercise, self-management), and by liaising appropriately with external agencies;
- Prevent, as far as is practicable, those circumstances detrimental to mental health and wellbeing;
- Provide an environment in which staff who have mental health difficulties receive suitable support and adjustments to their work to allow them to achieve their fullest potential.

3. The purpose of the policy

TClarke's Mental Health and Wellbeing Policy;

- Supports the effectiveness of its staff to enable them to fulfil the demands of their role
- Seeks to promote a positive working environment that does not adversely impact on the mental health and wellbeing of staff members;
- Seeks to ensure that those who support or manage staff who are experiencing mental health issues are themselves supported as they respond to colleagues experiencing these difficulties.

4. Definitions and terminologies

The term "mental health difficulties" is one which encompasses a wide range of experiences which affect an individual's ability to cope with his/her life and/or work responsibilities. The difficulties can range from stress and anxiety through to serious mental health conditions diagnosed and treated by the health services.

Although difficult to precisely define, it is important to avoid the use of any negative terms with stigma attached and which may deter staff from accessing the support required. The inappropriate use of medical terms which might mislead, and 'label' unnecessarily should be avoided.

5. Interactions with other policies

TClarke's Mental Health and Wellbeing Policy interacts with and refines several of its already established policies.

TClarke's duty of care towards Employees is determined by Legislation such as the Health and Safety at Work Act 1974, Human Rights Act (1998), Data Protection Act (1998) and the Equality Act 2010.

TClarke exercises this duty of care through this Policy and through the following related policies and associated guidance procedures:

- Occupational Health and Safety Policy
- Equality and Diversity Policy
- Grievance Procedures
- Sickness Absence Policy
- Alcohol, Drugs, and Substance Misuse Policy

Whilst mental health and well-being issues may be relevant to the application of the above policies, the relationship between this policy and the following other policies, procedures and notes for guidance is especially important:

- Data Protection Policy
- Disability Policy
- Disciplinary Procedures

5.1 This policy and TClarke Data Protection Policy

Whilst all dealings with staff/employees are subject to TClarke's Policy on Data Protection, it must be emphasized that confidentiality is of paramount importance with regards to those experiencing mental health difficulties. However, it must also be emphasized that confidentiality may be necessarily breached in highly unusual circumstances where the individual is deemed to be a risk either to him/herself or other persons. If there is a conflict between these two statements, then the safety of the individual and/or the safety of other members of staff must take precedence over confidentiality.

5.2. This policy and the TClarke Disability Policy

The Equality Act 2010 defines a disability as "a physical or mental impairment which has a substantial and long-term adverse effect on the ability to carry out normal day-to-day activities" and defines "long-term" as "12 months or more". Certain mental health difficulties may qualify under this definition and could therefore be considered as a disability.

TClarke Employees are encouraged to declare a long term mental health difficulty (and, therefore, a disability) to their Line Manager to facilitate support. The Company will consider what reasonable adjustments could be made to the individual's work situation in order not to disadvantage the individual staff member.

However, in most instances mental health issues are likely to be of shorter duration and may not qualify as a disability under the Equality Act. Regardless of this, managers should consider temporary reasonable adjustments and the assistance of the HR Department.

5.3 This policy and TClarke Disciplinary Procedures

The behaviour of some individuals experiencing a mental health difficulty may be disruptive and may contravene disciplinary codes and/or be detrimental to the wellbeing of other members of the Company, as such Formal action may be suspended where an individual has declared a mental health difficulty to the Company in order to bring to the individual's attention the effects of the behaviour, and to seek to identify suitable support to moderate that behaviour.

6. TClarke Responsibility

TClarke are responsible for:

- Promoting good mental health and wellbeing and the consideration of this goal within all relevant aspects of its operation.
- Providing support and advisory services through the Company Mental Health First Aiders.
- Ensuring that there is advice and guidance on procedures to support all staff experiencing mental health issues and their colleagues/line managers. Key support services, which includes the HR Department and will offer information, guidance and training to staff.
- Ensuring that mental health awareness training is available for where required
- Encouraging a non-judgemental/stigmatising work environment for all staff within the Company.
- Ensuring sensitivity in disclosure and maintaining confidentiality unless it is clearly unsafe to do so (see 5.1 previous).
- Monitoring the effectiveness of this policy through regular review.

7. Employee Responsibility

7.1 Responsibility of Heads of Department & Equivalent

- Promote good mental health and wellbeing and consider this goal within all relevant aspects of their undertakings.
- Ensure that any member of their staff who is affected by mental health issues is appropriately and sensitively supported.
- Ensure that they are aware of the provision of central support and advisory services.
- Ensure that they are aware of guidance and policy in relation to mental health and wellbeing.
- Ensure that they attend, and ensure that appropriate members of their staff attend, training on mental health and wellbeing.

7.2 Responsibility of all Staff & Employees

- Inform the Company of their mental health difficulties in order that the Company can deal fairly with them and support them as appropriate.
- Contribute towards a non-stigmatising culture.
- Treat each member of staff with a mental health difficulty with dignity and respect.
- Take advantage of training and information resources available.
- Uphold confidentiality (wherever safety is NOT compromised).
- Support peers within appropriate limits and boundaries.

7.3 Responsibility and resources for Staff & Employees who provide support for others

TClarke recognises that where staff & employees either support, or line manage a colleague who is experiencing mental health difficulties, each person has boundaries or limits to his/her knowledge, responsibilities, and competence. To assist staff who support, or line manage others experiencing mental health difficulties TClarke will provide suitable advice and training on:

- identifying mental health difficulties and making initial responses to individuals;
- recognising the need to refer an individual to support services;
- accessing TClarke's support services.

8. Other sources of support

Internal support is available from:

TClarke Human Resources (HR) Department

HR offer an accessible, constructive and responsive source of information and advice on all staff/employee related matters.

Tel: 020 7997 7400

Email: jo.lacey-smith@tclarke.co.uk

TClarke Health & Safety Department

For confidential support and advice on work related health issues, please contact the H&S Department.

Tel: 020 7997 7400

Email: safety@tclarke.co.uk

9. External Source of Support

Crisis Support and Helplines

If you, or someone you know is in mental crisis and needs medical help fast:

- Ring 999 to contact emergency services
- Go to you nearest Accident and Emergency (A&E) Department

If it is not a medical emergency, but you still need urgent help:

- Ring 111 for professional health advice 24/7 and 365 days a year and guidance on where to access appropriate health services.
- Make an appointment with your GP

Samaritans

Phone: 116 123

(Freephone, 24 hours a day, 7 days a week)

Email: jo@samaritans.org

Website: www.samaritans.org

Provide emotional support for people 24 hours a day, 365 days a year. They allow people to talk about feelings of distress and despair and are confidential and offer non-judgemental support.

SaneLine

Phone: 0300 304 7000 (local call rates, 6pm – 11pm, 7 days a week)

Website:

http://www.sane.org.uk/what_we_do/support/helpline

Provide out of hours mental health and emotional support and information to anyone affected by mental ill health, including family, friends and carers.

Mind Infoline

Phone: 0300 123 3393

(local call rates, 9am – 6pm Mon – Fri)

Text: 86463

Provides information on types of mental health issues, where to get help, medication and alternative treatments and advocacy.

APPENDIX A

Frequently Asked Questions

What support is available to staff/employees who may have mental health difficulties?

- All staff/employees are encouraged to declare any mental health issues to their line manager so that they can be offered the appropriate support.
- Individuals who declare mental health difficulties may be offered adjustments to their duties or hours to support them at work if operationally feasible.
- All staff have access to the confidential counselling with regards to a mental health issue.
- Line Managers have a responsibility to ensure that their staff/employees/First aider members are aware of the support available to them. Line Managers should also familiarise themselves with information on mental health issues/procedures to ensure that they can offer the required support.

What support is available for staff reporting work related stress?

- All staff/employees have access to confidential counselling through the HR Department, H&S Department or external support groups.

What do I do if I begin to suspect that a colleague may be starting to develop symptoms of mental distress?

- If you feel comfortable about doing so, you could engage the individual in conversation about how they are. If you have experienced them as slightly disengaged or distressed, you could mention that they "do not seem their usual self" and you were wondering if anything was the matter and whether you could be of any help at all. Depending on what they say you could suggest a strategy for support.
- Always advise them to seek advice from their GP.

What do I do if someone has a panic attack?

- A panic attack can be short lived or last up to 20 minutes. The stress which has triggered the attack may have caused hyperventilation, which will have lowered the person's carbon dioxide levels, causing dizziness, difficulty breathing and/or chest pains. It can be extremely frightening for the person experiencing it.
- Stay calm, reassure them as much as possible and call for a first aider if you feel you need support.
- If possible escort the individual to a more private area.
- Encourage them to sit down or stand still and breathe slowly and evenly, in through the nose and out through the mouth.
- Once the attack has subsided advise them to seek help from their GP or a Medical Practitioner.

What do I do if someone is threatening suicide?

- This is a serious situation and should be responded to accordingly.
- Just being there for the person and listening in an 'open-fashion' can be extremely helpful where possible.
- The person should be advised to see their GP as soon as possible and/or a counselling service.
- Should the person be unwilling to cooperate, and you have serious concerns for their immediate safety, call the police.

What do I do if someone is being seriously confrontational?

- This kind of crisis situation is rare. Assuring the safety of yourself and others, including the person in crisis, is paramount.
- Remain calm and non-threatening which may help reduce the risk of worsening the situation.
- Engage with the person in crisis, reassuring them that they are not going to be harmed and advise them you are going to get help.
- If the individual becomes severely disorientated or dangerous, then you may need to call a GP, the local accident and emergency service or, if necessary, the police.
- This could be a difficult, frightening and distressing experience for you. Make sure you talk with a colleague about it afterwards and find appropriate support for yourself.

What do I do if someone bursts into tears?

- Don't be alarmed. This is likely to be an appropriate reaction to a life event or an accumulation of stresses.
- Stay calm and clear and try to find a quiet area and reassure them you will stay with them.
- Allow them time to calm down and try to get them talking about what is distressing them.
- Talking to someone may be all they need; however, the difficulties may be ongoing and of a more serious nature. Suggest that they seek advice and support from their manager.

What if a member of staff/employee is returning after a prolonged absence due to mental health difficulties?

- The member of staff/employee should contact HR prior to their return to work for advice on how they can be supported and the possible adjustments to consider on their return as per the Return to Work Policy.
- It is important to meet with the individual and to discuss with them the advice from HR and the H&S Department.
- Regular 'one to one' meetings for the first few weeks should be planned to ensure that the individual has the support which they need for a successful return to the workplace.

B4 Risk

The ability to identify and manage effectively risk is fundamental to the successful delivery of a project. Defining, appetite for and approach to risk is considered and managed throughout the life cycle of a project from the decision to tender to final handover. Project teams are required to identify, assess and quantify the specific risks facing the project which could impact on their ability to deliver the project successfully.

The project team will maintain a register of the significant risks identified, including an assessment of the potential and likely impact pre and post mitigation, and an assessment of the effectiveness of the controls in place to identify and manage potential risks. Actions designed to mitigate identified risks and implement control and process improvements are discussed and agreed amongst the project team and are reviewed during the monthly project review meetings with Senior Management. A sample project risk register is provided below for an NEC Option C contract.

Item	Risk/Opportunity	Leader/Owner	Status	Programme Impact	Cost Impact	Likelihood	Comments	Action Required	Close Out Date
1	Duration of Programme post Blockade	AJ/AO	Implemented	12 months	1,145,000	3	Pending a final review of the Programme and the revision of the	Programme constraints to be released to end MEP works at end of blockade	31/01/19
2	110v Socket/Panel Removal and associated cabling	SF	Open		(300,000)	2	Omission of 110v sockets, transformer sockets, DB's and relating cabling.	LU process (i.e. hand held vacuum cleaners). TCL understand that within 2 years 110V sockets will not be	30/11/18
3	Alternative Lighting Manufacturer - Hendl	AO	Open		(200,000)	2	Data Sheets to be provided.	Review and acceptance of alternative luminaire by Hendl from APR	31/03/19
4	REDUCE scope of lighting to TICKET Hall	RA	Open		(40,000)	2	Ticket Hall only.	TCL to redesign lighting layout.	21/12/18

TClarke has built up extensive knowledge and experience of the NEC Contract particularly Options A and C. We understand the way risk and change is managed under this form of Contract and have developed internal procedures and protocols accordingly. In particular we have extensive experience in the way that change is administered under an NEC contract from the raising of an early warning notice, notification of compensation event, issuing of quotation to include assessment of both time and cost, negotiation with relevant stakeholders and implementation thereof. Experience has taught us to appreciate the importance of the Early Warning System to aid in the mitigation of risk to the contract and we have adopted a similar approach across all major contracts whether it be under the NEC or JCT form of Contract. A typical Early Warning Notice schedule is provided below

JOB NO	DESCRIPTION	Incident Ref.	EWN Number	EWN Date	NCE Ref.	NCE Date	ISQ Ref.	Quotation Ref.	Employers Instruction Number	Employers Instruction Date	Price TOTAL	DRA IMPLEMENTED VALUE	Status
1	Provision of design for APC Counters	INC 008					ISQ 001				£10,650.76	£10,650.76	Agreed
2	SSIU Tender Preparation (Fixed price Compensation Event)	INC 062	SNCE017								£23,608.25	£23,608.25	Agreed
3	Constructability of Circular PRM Lift Shaft	INC 012/ INC 644							EIN009	28-Oct-14	£31,238.50	£31,238.50	Agreed
4	Rebocation of Moving Walkway	INC 027							EIN020	19-Dec-14	£16,228.36	£16,228.36	Agreed
5	New LUL Standard - S1147 - Surveillance Security Systems	INC 060			SNCE015						£0.00		Withdrawn

NEC Contracts worked on include:

Victoria Station Upgrade Option A £20m

Bank Station Upgrade (Construction) Option C £25m

Bank Station Upgrade (Design) Professional Services Option C £5m

Beckton Depot Option A £1.0m

Paddington Bakerloo Link Option A £3.5m

C336 Paddington New Yard Option C £4.5m

TClarke

Opportunities are identified as below;

Off-site pre-build: Pre-building MEP and systems infrastructure will make considerable efficiency savings by fabricating, assembling and pre-wiring in a low cost, safe environment. It provides the opportunity to undertake integration of different systems allowing trialling and acceptance testing to take place prior to site delivery. By doing as much simulation as possible, before we affect operational systems, we reduce programme and safety risk. This will also reduce our carbon footprint with reduced deliveries to site.

Nova Victoria is an example where TClarke continued to manufacture off site modules and store to mitigate impact on delay. This decision offered on site programme duration benefits, improved product quality, improved sequencing due to multi service modules, improved health and safety due to safe environment for assembly and on-site labour reductions of between 16% for prefabrication and up to 57% for full modularisation.

International Quarter London Phase S6 utilised the opportunity of off-site modularisation with 12 pump sets all skid mounted, insulated, electrically connected reducing the site installation duration from 12 weeks to 1 week.

Programming: In delivering a project on time, on budget, efficiently and effectively there is a need for the programme to be developed at the earliest stage to develop a strategy that is agreed by all parties to monitor progress against. This programme is not limited to the physical works but from the coordination through to technical submittals, procurement lead times and interface dates with others.

The programme is a record of progress through the project. The programme shows an understanding of the work scope and identifies the sequence in which works can happen and significant interfaces with other parties that would affect works as well as any design/construction issues at the earliest stage which allows for a mitigation plan. Only by understanding the scope can the appropriate method be used to build a programme. It is important to develop a structure for progress measurement, scheduling, resource requirements, cost estimating and project control.

Once the programme has been agreed this will be used as a baseline to monitor progress. This will allow other management exercises to be carried out such as earned value, change control, histogram, s-curve to monitor and provide progress against the programme and if required to make necessary changes to maintain overall completion date, analyse gaps between the planned and actual progress and highlight the areas of concern which require action of the associated task and prepare look ahead programmes to focus the team's immediate programme requirements.

The programme is dynamic and therefore as time evolves through the project the programme will be reviewed with the client team and updated accordingly to reflect current events. This is achieved through client and professional team workshops to review existing links between activities, independent technical reviews, design verification, introduction of further interface milestones, reviewing time allocated for activities, introduction of new activities to provide further detail.

B5 – Strategic Objectives – Sustainable Development

TClarke recognises and accepts the known environmental implications of our engineering works and procedures. Although TClarke does not produce items from raw materials, we may be required to use or encounter products which could, if not handled or dealt with in a responsible manner, likely to cause damage in some form to the environment.

As part of our commitment to sustainable development, we undertake regular appraisals as a means of identifying significant impacts for our works, including: health and safety, climate change and air quality, travel and transport, energy consumption, noise vibration, water and drainage, geology and soils and wastage.

TClarke successfully implemented an Environmental Management System to BS EN ISO 14001:2015 to provide its clients and other stakeholders with verifiable evidence that environmental performance is integral to business management.

From the tender stage TClarke will assess the environmental issues associated with our activities and performance.

All waste from either the works or removal of redundant materials will be collected and deposited in the appropriate waste segregation bins.

For TClarke activities the main items requiring disposal will be:
Metal off-cuts from containment system installation,
Cardboard packaging from materials and
Paper from site office

TClarke will ensure that only 100% FSC timber will be used on the site by procuring from approved FSC suppliers such as Abbots.

TClarke will request and make arrangements with its supply chain on take back of packaging where it is feasible and possible for re-use by the supplier. TClarke liaise with Trox on the reuse of packing/transport cases for multiservice beams on International Quarter London Phases S5 & S6.

Where also feasible TClarke will request its supply chain to minimise cardboard packaging by decanting materials in either plastic bags or paper sacks prior to delivery to site – this will be requested only where the items of material will not be liable to damage during transit or in storage.

TClarke is committed to the reduction, and where possible elimination, of pollution levels and as an organisation we will:

- Identify wastes before disposal in on-site bins provided
- Allocate responsibility for waste on site
- Verify waste carriers registration and licences
- Identify possibility of minimising packaging by consolidation
- Identify possibility of pre-fabricating containment systems off-site
- Prevent damage to materials during storage
- Reuse/recycle materials e.g. scrap metal, cut offs etc

Monthly sustainability KPI data is submitted to Lend Lease on Google KGX1 Kings Cross to support BREEAM and LEED compliance, and to support the project targets a Site Waste Management Plan is prepared. This is common to all our projects.

TClarke recognise the value of working with the Supply Chain to not only conform to Specifications, but also to improve from the norm and we have numerous examples of this, including:

- Re-use and minimisation of packaging at IQL S5 &S6 (TroX Beams)
- Wherever possible adoption of “Minimum Water Discharge” water flushing
- On Google KGX1 Kings Cross, TClarke have worked with Aermec to offer an HFO refrigerant option (XP10) for the 5 mW chillers.

This is the sixth year TClarke have been required to report on Greenhouse Gas ('GHG') emissions in accordance with the Companies Act 2006 (Strategic Report and Directors' Reports) Regulations 2013. Energy consumption was measured across the Group by recording data on the combustion of fuel and the use of electricity at its offices and facilities, and we have collated Scope 1 and Scope 2 emissions data for the year ended 31st December 2018 across the four regions. Our GHG emissions have been calculated using UK Government guidelines for conversion of fuels and electricity.

TClarke will also comply with the second stage of ESOS (Energy Savings Opportunity Scheme) by way of conducting audits of the energy used by our buildings, industrial processes and transport to identify cost-effective energy saving measures.

TClarke's prefabrication workshop has relocated to a new 26,000 sq ft facility located 20 miles from London servicing the TClarke business only. In these units we produce high quality prefabrication pipework, modules, pump skids and multi-service utility cupboards. We aspire to maximise prefabrication and modularisation of systems at every opportunity. Previously, this approach has been considered to be a luxury for which a premium will be applied. In-house expertise means that the objectives in our approach to prefabrication and off-site assembly can be achieved. The key is not to start from a traditional approach and then 'convert' to a prefabricated route as the areas where savings are made will not be reflected in the bottom line; the prefabrication strategy must be embedded from the outset. The stated benefits to off-site techniques include:

- Higher quality standards
- Faster installation periods
- Reduced on site resource levels
- Reduced health & safety risks
- Reduced carbon footprint

Our aspiration and approach to the projects is to prefabricate, modularise, pump skids and/or off site assemble as much of the M&E services installation as possible. No aspect of work will be 'traditionally' constructed on site, until all prefabricated opportunities have been fully investigated for added benefit.

Management of MEP Works

International Quarter London – Building S5

A new 48,000 m², 20 storey office facility for TFL in the International Quarter Stratford. A large open floor plate style office with cellular meeting rooms wrapped around a central atrium. Serviced using state of the art, multi-service passive chilled beams fabricated off-site.



Value: £33m
Client: Lend Lease
Developments
Consultant: Hoare Lea &
Partners
Principle Contractor: Lend
Lease Construction
The Scope of Works:
Mechanical, Electrical, Public
Health (Design & Build)
Date: June 2016 – Feb 2018
(On-site 52 weeks)

As a Tier 1 MEP Supply Chain Partner of Lend Lease, TClarke were embedded on site with the Lend Lease project delivery team, other Trade Contractors and Consultants. As a key Trade Contractor, TClarke were required to develop a full WMP (Works Management Plan) defining the Structure, Roles & Responsibilities of each member of the Project Team, along with how they integrated into the Lend Lease Team / other Trade Contractors. This also involved the development and adoption of common reporting structures, QA documents and Commissioning Reporting structures with the Clients Commissioning Managers, Dome. The general control of the project was structured around the Integrated Control Documents, which were set up during the pre-construction phase e.g.:

- IRS Schedules
- Technical Submittal Schedules
- Drawings Registers
- Pre-Con, Construction, Off-Site Manufacture and Commissioning Programmes
- Risk Registers
- Site Mock-Up's / Factory Visits & Tests
- Change / Variation Schedules
- RAMS / ITP's etc.

All documents were exchanged / shared via Aconex platform.

TClarke were responsible for coordination / planning of key areas of the project and took the lead in developing the sequencing of programme elements, developing an integrated Asta programme. As lead coordinator, TClarke modelled the MEP services utilising Fabrication MEP software, the distribution of all models and information was carried out on the project CDE. Full model reviews were carried out and the associated reports generated detailing required actions and ownership were circulated to all relevant parties via the CDE and team

workshops for action and re-submission in accordance with the project BEP. The programme was extremely challenging and in order to achieve the dates & quality standards a number of off-site methods were adopted. These were delivered through a mix of Supplier engagement (e.g. TROX Multi-Service Beams) and TClarke's own Manufacturing Facility at Stansted:

- Fully Integrated, Prefabricated Passive Chilled Beams (TROX)
- Skid Assembly Pump Sets for LTHW & CHW Pumps (TClarke Facility)
- Off-site prefabricated pipework, steelwork & bracketry (TClarke Facility)
- Modular Wiring
- Pre-Wired Distribution Boards

The off-site prefabrication was extremely successful and was a key factor in achieving the programme challenges. The success was fundamentally dependent upon early engagement, resource and commitment from all parties and our site-based project team worked alongside all other trade contractors and closely with the design team to ensure efficient communication and technical integration.

The Architectural vision of the internal space at IQL S5 was based around bespoke design of Chilled Beam, exposed services and finished concrete. This required a high degree of accuracy and care when setting out the works to avoid damage to visible soffit surfaces. This was managed by having a specific team responsible for this, working to a specific RAMS and QA checks and carefully planning the works in advance. *The 3000 beams installed across the building were all correctly installed.*

To assist with the Quality Control, we also supplemented the standard TClarke ISO 9001:2015 procedures with tablet based snagging software to support the effective completion and inspection & test phase of the project.

A close working relationship was developed with CORE Group during the project to ensure the Water Treatment, Balancing and Performance testing was undertaken in a controlled and managed way, with traceable documentation available at all times.

During the works, the commissioning became a programme focus and in order to mitigate the impact on the Flushing, Cleaning and Balancing, TClarke instigated a specific "commissioning back-shift" on alternate floors to enable parallel activities with other finishing trades. A consolidation facility was also used to ensure the Chilled Beam deliveries were efficient and to minimise the logistics impact to other trades at site level.

Health & Safety is core to TClarke and as an OHSAS 18001:2007, ISO 9001:2015 & ISO 14001:2015 accredited company we have well established management processes. These stem from the active use of the Integrated Control Documents, along with high quality Tradesmen and Sub-Contractors selected from our Approved Data Base and who form part of our Supply Chain. TClarke have undertaken all the Commercial phases (S5, S6 & S9) with Lend Lease and have ensured that our Supply Chain partner have also followed suit to ensure "gained knowledge" is not lost.

Particular challenges that was identified early and dealt with were;

- Lifting and positioning of the Passive Chilled Beams (each weighing circa 200kg) to high level and accurately positioned to within millimetres
- Working safely within the 600mm deep raised floor void to undertake the installation of the underfloor services (full external perimeter trench heating, electrical distribution, ductwork compressed air etc). This was achieved using a permit to work and barrier system, with all operatives being trained by Kingspan flooring to safely lift & replace tiles.)

Sustainability was a key focus on the project and over and above the use of off-site methods, other specific strategies were developed:

- Multi-Service Chilled Beams delivered in re-usable timber packing cases (typically re-used 6 times)
- Materials delivered in stillages
- Packaging minimised & returned to supplier.

TClarke also brought into the overall Project KPI's as follows, which we were happy to link to financial targets (i.e. Retention release):

- Quality — weighted at 20%
- Health & Safety — weighted at 30%
- Local Employment — weighted at 10%
- Water, Energy and Waste — weighted at 20%
- Supply Chain Spend - weighted at 20%

The project was carried out under a Design & Build Contract, with TClarke taking on the responsibilities for BREEAM Compliance, final spacial coordination, CDM, final circuit checks, pressure drop check, expansion etc. In order to define this TClarke used an adapted BSRIA BG6 scope document.

Commercial control was an important factor on the project. The Lend Lease Commercial Team were involved in the selection / procurement process and retained as part of the delivery team. This enabled clarity of scope requirements and interfaces with other relevant trades. It also ensured that a consistent and mature relationship developed, where risks and issues were brought to the attention of the teams early enough for actions to be taken and costs managed. TClarke agreed our final account 1 month prior to Practical Completion.

Mizuho Bank 2 New Ludgate Design Case Study

The Project – Mizuho Bank 2 New Ludgate

Mizuho Bank was a client category B fit out at 2 New Ludgate consisting of levels 4 (part) to 9 with additional tenant plant located at both basement and roof levels along with the associated interconnecting infrastructure.

Building Owner – Land Securities
End User – Mizuho Bank
Our Client (Main Contractor) – Shimizu
Overseeing Consultant - Shimizu

Our scope of work included full design and build duties for the following services: -

- Supply and extract ventilation systems
- Low temperature hot water system
- Chilled water system
- Tenant critical chilled water system (including independent chiller plant and infrastructure)
- Prefabricated plate heat exchanger modules
- Fan coil units
- CRAC units to comms rooms
- Building management system
- Gas fire suppression system
- Sprinklers
- Soil and vent services
- Domestic services
- Leak detection
- Lighting and Power
- Fire alarm
- Tenant UPS system
- Switchgear modifications and extensions

Our design responsibilities included liaison with Land Securities (Landsec) to ensure that at no time our design proposals in anyway conflicted with their services requirements of the base build installation. This included design reviews at all design stages from stage 3 onwards, a benefit of involvement from stage 3 was that the early plant selection could be carried out during this period. During this process it was established that modularisation of the plate heat exchangers and associated pump, valves etc. units would be of benefit to the project delivery. The first of these modules was manufactured, tested, delivered to site and installed in its final location before being offered to both Landsec and Shimizu for benchmarking. On sign off by all parties the remainder of the modules were completed and delivered to site. All elements of the installation were subject to benchmarking prior to the commencement of the remainder of the installation, this included typical FCU, luminaires, Plate heat exchanger modules, underfloor bus-bar and containment etc.

All equipment and plant utilised on the project was co-ordinated with the base build BREEAM requirements so as not to compromise the facilities overall BREEAM rating.

Throughout the design of the infrastructure upgrades for the tenant critical chilled water system, UPS system bus-bar distribution etc. close relationships were established with both Landsec and their FM teams to propose, demonstrate and agree routing in such a way that there was no impact on existing services operation and maintainability.

Additionally, at every stage of the design process Shimizu's technical team were involved in system reviews, design performance verification and technical approvals, close liaison with both Landsec and Shimizu ensured that the design performance criteria was achieved without compromise to the original design intent. It was also key to the successful delivery of the project to engage at an early stage both the incumbent system suppliers and the new supply chain to streamline the delivery of the secondary design deliverables (contractor design portion elements) seamlessly during the design process.

All supply chain information was reviewed by TClarke for compliance with design performance, spatial fit and suitability prior to submission upstream to the client. This also enabled us to ensure that plant and equipment selections were made, based upon the final co-ordinated design (pressure drops/loads/volumes etc.) and as such ensure efficient operation and life cycle costing.

A specific client requirement was to provide an extensive leak detection system to cover all tenant critical chilled water services. This included plant areas, risers and distributed pipework across the tenant floor plate, slam shut valves were installed to critical areas (MER etc.) to operate in the case of leak detection, the system was fully integrated with the base build BMS system.

The architectural layouts were changed to facilitate the installation and correct operation of the gas suppression system pressure relief dampers.

A standalone energy monitoring system (EMS) was installed to monitor all Mizuho loads independent of the base build EMS this was to allow Mizuho to carry out close monitoring of its loads. It should be noted that this system was additional to the existing EMS which already achieved compliance with part L of the building regulations.

Throughout the design value engineering, cost saving and time benefiting opportunities were investigated such as: -

- Modularisation of the plate heat exchangers
- Alternative manufactures
- Revised equipment/system arrangements

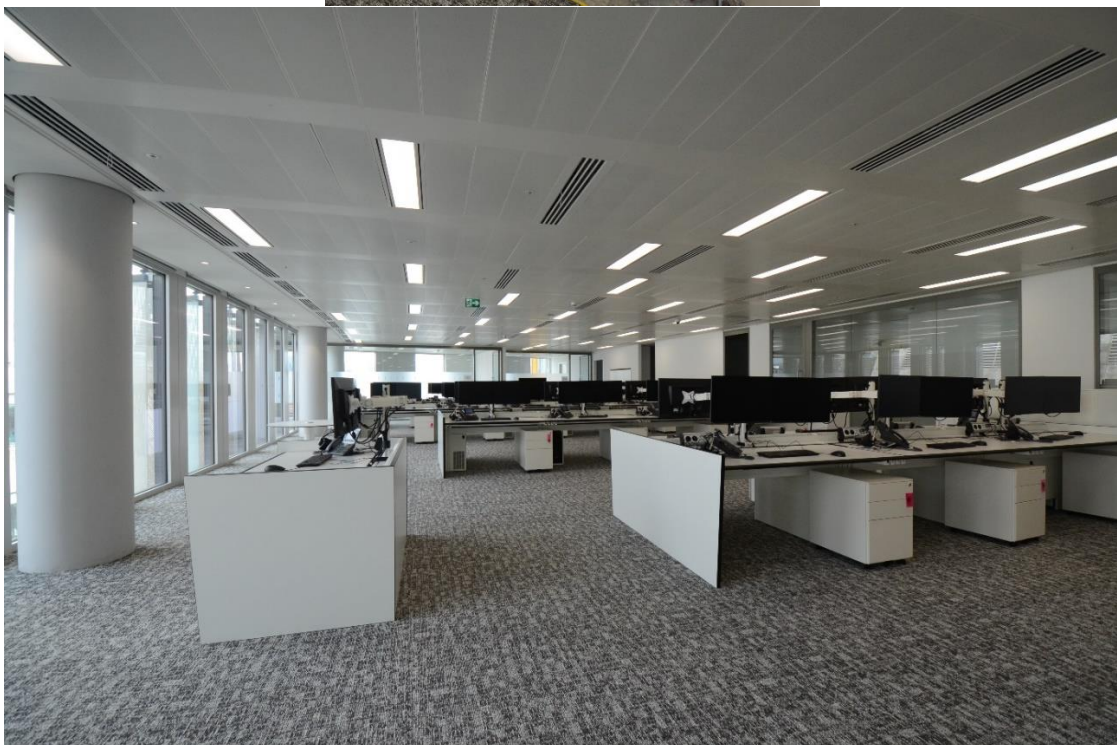
The client had specified constant flow chilled water pumps for the tenant critical chilled water system, as part of our design process we made recommendations that the pumps be changed to variable speed inverter driven type. This was subsequently agreed and implemented.

The client also specified a tenant critical chilled water ring main system with sectional valving arrangements which would have caused water quality issues and an enhanced risk of leaks due to the large number of additional valve sets required. The system that was finally implemented was a simplified system which ensured constant water movement throughout

and utilised a less complex valving arrangements. This provided a cost saving and reduced ongoing running costs.

The UPS's and input/output switchboards were close coupled to save space and reduce cabling within the UPS rooms.

Direct liaison, in association with both Landsec and Shimizu, was carried out with the building control officer in regard to ongoing design approvals and system operation demonstrations.



Installation and Commissioning

22 Bishopsgate – Cat A Fit-Out

A New 62 Storey, 1.275 Million sq ft office facility on Bishopsgate, London housing 12,000 staff. A large open floor plate style office wrapped around a central atrium. Serviced using a traditional mix of 2-pipe & 4 pipe Fan Coil Units for cooling solution, modular wiring and integrated controls, IT, Fire, Security CCTV, Access Control, along with HV / LV and ELV Systems.



Value: £75m
Client: Lipton Rogers
Consultant: Hilson Moran Partnership
Principle Contractor: Brookfield Multiplex
Scope of Works: Mechanical, Electrical, Public Health
Date: Ongoing

TClarke are undertaking the Electrical Shell & Core along with the full MEPH and specialist services installation and Commissioning at 22 Bishopsgate.

As a high-rise structure in Central London, the challenges are significant, but two key ones being:

- The logistics of getting the Workforce, Plant and Materials to the workface in an efficient manner, with limited “hook & hoist time”
- Sequential testing, water treatment and commissioning of the MEPH Cat A Services to meet the programme requirements whilst maintaining water quality.

Off-site fabrication is core to all TClarke projects, using our own 26,000 sq ft Fabrication Workshop in Stansted whenever possible. In this instance, in order to minimise the volume of materials & men utilising the site infrastructure, we extended our fabrication scope to include the small-bore pipework services up to the FCU’s and terminal devices. Deliveries were achieved using purpose built mobile Stillages containing the pipework & valves (labelled to identify specific location) and delivered to site at night, via a Consolidation centre. The prefabricated small-bore pipework approach required high quality, fully dimensioned multi-service construction drawings being available early in the construction process to enable the manufacture to commence in line with programme. This approach has enabled the Cat A installation to progress ahead of the Shell & Core and advanced the static completion, inspections, sign-off, hydraulic testing and water treatment elements of the works.

Due to the high-rise nature of the project the hydraulic design of the CHW & LTHW systems was split to give a “Low, Mid and High” structure and whilst this suited the technical pressure management of the building, it added sequence problems to the programme. This has been alleviated by a coordinated approach between TClarke and Multiplex where temporary flushing by-passes have been added to the secondary side of the systems and the system pumps used to flush and clean the “Low & Mid” systems ahead of the original sequence. This has also had the added benefit that the sampling & water quality management regime has been simplified as the number of individual systems have been minimised. Once the

Shell & Core is completed, tested, flushed and cleaned, the final primary side integration will be undertaken. This approach has also allowed the early commissioning of the water systems to be undertaken using the System Pumps.

In early stages of the project, it was identified that a system with in excess of 3200 Fan Coil Units on floor and the Primary Cooling Plant at roof level was likely to present a problem with Commissioning resource. As a result, we investigated possible mitigation and instigated the following:

- To enable the entire systems to be commissioned and witnessed at each floor level, TClarke instigated an approach where the Primary & Secondary air systems to each floor have been balanced using Mobile Fans, temporarily connected at the Shell & Core CAV's to allow a proportional balance to the floor, prior to the main AHU systems being available.
- Adoption of TA (IMI Hydronics) Modulator PICV Valves into LTHW & CHW hydraulic systems. These valves allow a "Dongle" to be used to set-up the water flow rates as opposed to a traditional "Water Box". Independent tests were carried out by BSRIA on behalf of TClarke Supply Chain Partner, IMI Hydronics to ensure accuracy. This approach has minimised the number of skilled Commissioning Engineers required to complete the works, via training of semi-skilled operatives.

As stated above, TClarke are undertaking the full MEPH, BMS & Specialist services on the Cat A Fit-Out and the Electrical Shell & Core installation. This has allowed added benefit in the interfacing / energisation of the Electrical Rising Bus Bar, where tight communication has been required to enable power on for the advanced commissioning. It has also assisted in respect to the integrated decision process for products and systems (e.g. compatibility and integration of PICV and Controllers).

TClarke have many years of experience undertaking major Shell & Core MEPH works and understand that a key to the success of the overall programme and integration of the subsequent fit-out means that a detailed understanding of the technical arrangements, sequence of works, interfaces and programme is required and needs to form part of the early phases of the project, across the entire team.

Southbank Place – Shell & Core / Cat A



Value: £38m

Client: Canary Wharf Contractors
Consultant: Aecom

Principle Contractor: Canary Wharf Contractors

The Scope of Works: Mechanical and Electrical Services (Shell & Core and Fit Out)

Date: Completion Sept 2018

TClarke undertook the MEPH works at Southbank Place Development for CWCL. Building 1 - Shell & Core commercial development consisting of 3 floors of basement, 10 floors and roof.

Building 2 - Shell & Core and Fit Out development consisting of 2 floors of basement, 17 floors and roof.

Using our own Fabrication Workshop at Stansted, we designed, manufactured and installed the Primary Plant Modules, Skids (Pump, Boosters & Pressurisation sets etc) and Heat Exchanger Modules at floor Plant Rooms. We also manufactured and installed loose, fully welded, Class 1 riser & distribution pipework up to 450mm dia MIG / TIG Welded.

The key to the successful implementation of this approach was the use of our DfMA team, who from day one developed the Coordinated model / drawings with off-site modularisation in mind. This covered the physical and logistical constraints of the site as well as the detailed aspects such as drains, vents, commissioning requirements and post construction FM access.

The plant skids were all developed to incorporate the pre-wired power & controls and were pre-tested at our facility. Following which they were dried, shrink wrapped and prepared for delivery.

A particular challenge revolved around the HEM Units (Heat Exchanger Modules), where spacial constraints were evident. To ensure the modelled solution worked, we manufactured a test HEM and took it to site for a physical test. This also allowed us to use this as a “benchmark” for not only quality, but also logistics.

Within the main Chilled Water Plant Rooms, pre-insulated Pipework Modules were used. These were designed to incorporate the electrical containment also, thus minimising the required access back to high level. They were also manufactured such that as much “transport Steel” could be removed / re-used post installation.

