

## Health, Safety and Wellbeing | QS-16A | Delivery Methodology | Outline Health, Safety and Wellbeing Implementation Plan

1. Your *outline health, safety and wellbeing implementation plan* shall demonstrate alignment with The Client's 'Home, Safe & Well' strategy, taking account of the six (6) pillars which are
  - 1.1. effective leadership;
  - 1.2. capable people;
  - 1.3. setting clear expectations;
  - 1.4. engaged stakeholders;
  - 1.5. a learning organisation;
  - 1.6. health, safety and wellbeing by design.
2. Your *outline health, safety and wellbeing implementation plan* shall provide the following information as a minimum:
  - 2.1. the identification of key health, safety and wellbeing risks on the Scheme and how they will be mitigated, including for:
    - 2.1.1 the management of high-risk activities;
    - 2.1.2 plant and operative interfaces on site;
    - 2.1.3 stress, absenteeism and loss of productivity within the workforce;
    - 2.1.4 different languages within the workforce;
  - 2.2. how health, safety and wellbeing performance will be measured, assessed and improved;
  - 2.3. how you will ensure competence in relation to health, safety and wellbeing, including key health, safety and wellbeing personnel, resource and qualifications;
  - 2.4. how you will ensure engagement in relation to health, safety and wellbeing.



## 1. BADGER'S Outline Health, Safety and Wellbeing Plan

The purpose of this document is to outline **BADGER's HS&W Plan**. It emphasises our compliance with **S1100** but also draws from many other aspects of the tender documentation shown in Figure 1.

The vision embodied in our strategy is simple; we provide a working environment where everyone goes home healthy and unharmed each day, by creating a **HS&W culture driven by leadership**, delivered through teamwork and confirmed through assurance.

### 1a. External Best Practice to influence our HS&W Plan

Beyond the documents detailed in Figure 1, BADGER have collated best practice across the civil engineering sector, improving our learning from the start of the tender process, focussing on:

External Best Practice	Specific Detail
HSE Health and Safety in Construction Project 13	HS&W and the law Digital transformation Commercial handbook
ICE: Alliancing CoP	Leadership for an effective alliance
Construction Leadership Council	HS&W section of website
IOSH Future leaders Steering Group	Training for future HS&W leaders
The Global Managerial Academy of our JV	Corporate leadership training
IOSH: WORK 2022 – Shaping the future of safety and health	New technologies for HS&W
One of our JV chairs the European Construction Industry Federation Health and Safety Committee	Sharing of innovations and best practice in HS&W
Highways England Stakeholder Engagement Reports (various schemes) 2018-2019	Effective engagement methodologies
ORR: Highways England's engagement approach with local and regional partners: June 2020	Measurement of Highways England's engagement performance
SKATE: Skills Knowledge Attributes, Training and Education	Designing for OH for Construction Workers
Highways England's Raising the Bar 26	Whole life design for HS&W
GG109 – Road Safety Audit	RSA process requirements
GG142 – Walking, cycling & horse-riding	Assessment and review

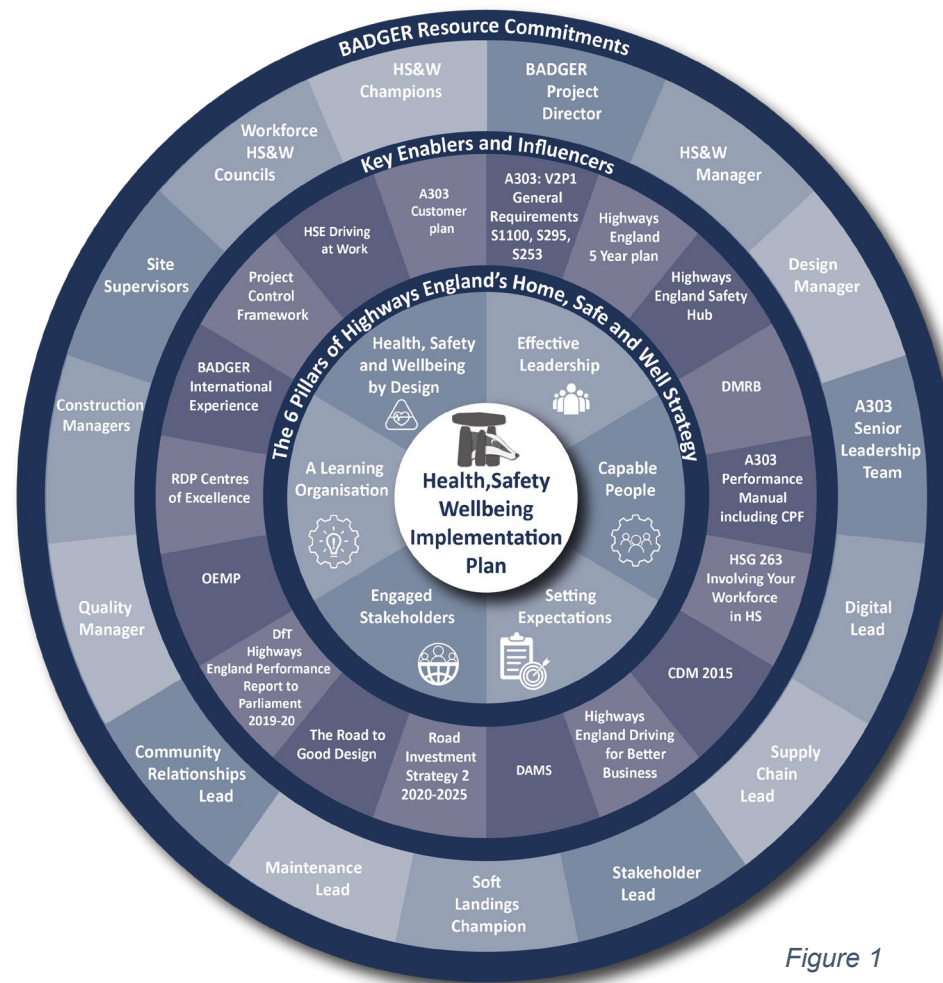


Figure 1

### BADGER A303 Scope Compliance

We have identified the following key references for embedding all 6 pillars of the Home Safe and Well document and as a basis for BADGER compliance plans and documentation:



Scope Requirements	BADGER Compliance Process Documents	Area of Home, Safe and Well Strategy (references as per BADGER response)
V2P1 S1100 Health, Safety and Wellbeing	<ul style="list-style-type: none"> <li>• HS&amp;W Implementation Plan &amp; HS&amp;W File</li> <li>• Health Surveillance Programme</li> </ul>	<ul style="list-style-type: none"> <li>• 1.1, 1.2, 1.3, 1.4, 1.5, 1.6</li> <li>• 1.2</li> </ul>
V2P1 S295 Behaviours	<ul style="list-style-type: none"> <li>• IBIP and Behaviour Maturity Plan</li> </ul>	<ul style="list-style-type: none"> <li>• 1.1, 1.2, 1.4</li> </ul>
V2P1 S253 People Strategy	<ul style="list-style-type: none"> <li>• Inclusion Action Plan</li> <li>• Employment and Skills Plan</li> </ul>	<ul style="list-style-type: none"> <li>• 1.1, 1.2</li> <li>• 1.1</li> </ul>
V2P1 S2905 Leadership	<ul style="list-style-type: none"> <li>• BADGER Leadership Strategy</li> </ul>	<ul style="list-style-type: none"> <li>• 1.1</li> </ul>
V2P1 S1200 Subcontracting	<ul style="list-style-type: none"> <li>• A303 Project Collaboration Charter</li> <li>• A303 HS&amp;W Training Plan</li> </ul>	<ul style="list-style-type: none"> <li>• 1.1</li> </ul>
V2P1 S2915 Supply Chain	<ul style="list-style-type: none"> <li>• Supply Chain Engagement Plan</li> <li>• Recruitment Strategy (Appointment of design personnel qualified and trained in SiD requirements)</li> </ul>	<ul style="list-style-type: none"> <li>• 1.2, 1.4</li> <li>• 1.6</li> </ul>
V2P1 Annex K Key Person's Schedule	<ul style="list-style-type: none"> <li>• Organisation Charts and RACI Matrix</li> </ul>	<ul style="list-style-type: none"> <li>• 1.1</li> </ul>
A303 Performance Manual CPF	<ul style="list-style-type: none"> <li>• Performance Management Strategy</li> <li>• Performance Management Points process</li> <li>• A303 Social Value Charter</li> <li>• A303 Project Collaboration Charter</li> </ul>	<ul style="list-style-type: none"> <li>• 1.1, 1.2, 1.3, 1.4, 1.5, 1.6</li> <li>• 1.1, 1.2, 1.3, 1.4, 1.5, 1.6</li> <li>• 1.4</li> </ul>
OEMP	<ul style="list-style-type: none"> <li>• Health and Safety method statements</li> <li>• Working hours</li> <li>• Training</li> <li>• Land Contamination</li> <li>• User experience and safety</li> </ul>	<ul style="list-style-type: none"> <li>• 1.1</li> </ul>
Digital Construction	<ul style="list-style-type: none"> <li>• ISO 45001</li> <li>• AirsWEB 2 for HS&amp;W Incident Reporting</li> <li>• Information Services Strategy</li> </ul>	<ul style="list-style-type: none"> <li>• 1.1, 1.2, 1.3, 1.4, 1.5, 1.6</li> <li>• 1.1, 1.2, 1.3, 1.4, 1.5</li> <li>• 1.5</li> </ul>
V2P1 S229 Discrimination, Bullying and Harassment	<ul style="list-style-type: none"> <li>• Inclusion Action Plan</li> <li>• A303 Project Collaboration Charter</li> <li>• Behaviour Maturity Plan</li> </ul>	<ul style="list-style-type: none"> <li>• 1.2</li> <li>• 1.2</li> </ul>
V2P1 S250 Considerate Constructors Scheme	<ul style="list-style-type: none"> <li>• CCS Ultra Site Action Plan</li> <li>• Calendar of CCS site visits</li> </ul>	<ul style="list-style-type: none"> <li>• 1.2</li> </ul>
V2P1 Annex E Continual Improvement	<ul style="list-style-type: none"> <li>• Innovation Plan</li> <li>• A303 BIP App Best Practice Hubs</li> </ul>	<ul style="list-style-type: none"> <li>• 1.2</li> </ul>
Appendix 1/3 V3 Communication	<ul style="list-style-type: none"> <li>• Internal Communications Plan</li> <li>• Stakeholder Engagement Plan</li> </ul>	<ul style="list-style-type: none"> <li>• 1.2</li> </ul>
V2P1 S296 Strategic Alignment	<ul style="list-style-type: none"> <li>• StART 3 Assessments – HS&amp;W</li> </ul>	<ul style="list-style-type: none"> <li>• 1.3</li> </ul>
V2P3. 3.6 Safety patrols and safety inspections	<ul style="list-style-type: none"> <li>• Site Management Plan</li> </ul>	<ul style="list-style-type: none"> <li>• 1.3</li> </ul>
V2P7 Communications, Stakeholder and Community Engagement Requirements	<ul style="list-style-type: none"> <li>• Stakeholder Engagement Plan</li> <li>• Community Relations Plan, linking to workforce integration (See QS-17B)</li> </ul>	<ul style="list-style-type: none"> <li>• 1.4, 1.6</li> <li>• 1.6</li> </ul>
V2P1 Annex C Client's Personnel Security Measures	<ul style="list-style-type: none"> <li>• Recruitment Strategy and protocols</li> </ul>	<ul style="list-style-type: none"> <li>• 1.4</li> </ul>
A303 Customer Plan	<ul style="list-style-type: none"> <li>• Stakeholder Engagement Plan</li> <li>• A303 Customer Delivery Plan</li> </ul>	<ul style="list-style-type: none"> <li>• 1.4</li> </ul>
V2P8 Integrated Project Controls	<ul style="list-style-type: none"> <li>• PEP</li> <li>• BADGER Risk Register</li> </ul>	<ul style="list-style-type: none"> <li>• 1.5</li> </ul>
V2P1 Annex W Project Risk Register	<ul style="list-style-type: none"> <li>• BADGER Risk Register</li> </ul>	<ul style="list-style-type: none"> <li>• 1.5</li> </ul>
V2P1 S300 Contractor's Design	<ul style="list-style-type: none"> <li>• Recruitment Strategy (Appointment of design personnel qualified and trained in SiD requirements)</li> </ul>	<ul style="list-style-type: none"> <li>• 1.6</li> </ul>



## 1.1 Processes for Embedding Effective Leadership

### STAGE 1: HS&W Selection Rationale Matrix

This details the experience, skills and behaviours required of our A303 Leadership Team. Defining this prior to appointment enables us to achieve the correct balance in the team. Our HS&W Manager, Antony Henocq, is a member of IOSH and has achieved a MSc CMIOSH. He has relevant knowledge and experience of major civils and highways projects and a significant working knowledge of legislation, guidance and standards relevant to the works (**S1106.11**).

### STAGE 2: Profiling of our HS&W Leaders

BADGER's Leadership Team will use DISC or Insight personal profile processes to enable full understanding of behaviour strengths and their impact on team dynamics. This will support a programme of **Behaviour Science Training** used initially with the Leadership Team with key messages cascaded to the BADGER workforce to promote a shared understanding of expected behaviours and working culture.

### STAGE 3: HS&W Onboarding & Immersion for Leaders

Our leaders will participate in specific A303 HS&W Onboarding and Immersion Programmes. These will apply a deep dive into the A303 specific HS&W risks, threats and concerns, and marry the key learning from the Leadership Team behavioural assessments. By inviting Highways England to these meetings, the *Client* can witness our starting points for the Leadership Embedment Tests (LET) process. Our HS&W Leaders Onboarding and Immersion Programme will:

- Be based around the 'Safety Builder' programme of one member of our JV will be on an awareness and education programme, taking into account the context of the A303 Scheme, ensuring leaders cascade to workers how they

become an active part of a cultural change to put safety at the heart of everyone's daily work.

- Deliver our core HS&W messages via our Project Director first
- Ensure our leaders reflect a strong health and safety culture (**S1106.1**) being at the forefront of all onboarding
- Initiate our assessment of the HS&W section of StART 3
- Provide an explanation of roles and responsibilities
- Share BADGER values, vision, scheme objectives and SSPMs to establish HS&W expectations
- Share *Client* imperatives regarding customer focus
- Initiates our safety profiling system of Plan, Do, Check, Act
- Is digitised, via our A303 BADGER Information Portal (BIP) App, to deliver a consistent understanding of UK HS&W terminology and standards
- Include supply chain leads; recognising that Highways England are reporting elevated AFR rates amongst their supply chain
- Introduce our Leadership Team to the communication potential of the A303 BIP App
  - To deliver site specific HS&W messages from our leaders
  - To provide a confidential forum for the reporting of HS&W concerns to be dealt with by the most appropriate leader, with transparent reporting of any required actions
  - To share feedback from monthly leadership site tours.

### STAGE 4: HS&W Ongoing Leaders Training Programme (incorporating Leadership Embedment Tests)

As the scheme progresses and potential leaders become more visible, we will engage our JV's existing leadership training schemes, adapting where necessary to enhance our leadership training, supporting members of the workforce to gain NEBOSH Construction Certification. We will offer opportunities to gain NVQs, up to Level 5 as a development route for apprentices. Our full leadership strategy is explained in **QS-18A**.





We will train our leaders in the importance of wellbeing. This training will lead to a Certificate of Leadership in HS&W and focuses on:

- Why Wellbeing? It is not a bolt on
- The best working environments to support workforce wellbeing
- Collaboration strategies with the workforce to involve them in wellbeing decisions
- Decision making on specific wellbeing programmes/ other organisations to be used on the A303 scheme
- How we will evaluate and report on wellbeing

In addition, our HS&W Manager, with our Occupational Health provider, will deliver mental health first aid training for all leaders. This will encompass the importance and real meaning of an open-door policy which is non-judgemental. Certain leaders will be trained in how to listen to and assess what they are hearing, how to show understanding and what tools are available to signpost the member of the workforce to.

### STAGE 5: Performance Management Strategy (Health & Safety Maturity Matrix Action Plan (HSMM))

**BADGER's Performance Management (PM) Strategy** is the final stage in all processes for embedding the 6 pillars of the Home, Safe and Well Strategy.

BADGER's Leadership Team, key delivery managers, site supervisors and subcontractors will be set performance management targets aligned to *Client's* objectives and reviewed in line with the SSPMs and the Highways England Collaboration Performance Framework (CPF), with evidence gathered from our inspection and monitoring schedule. These will dovetail with the individual targets emanating from LETs. Evidence from reviews and the CPF toolkit will feed into monthly project reviews.

For our HSMM we have taken influences from other schemes i.e., the Olympic Park Safety Maturity Matrix, to execute the measuring of safety behaviour performance of our leaders and workforce (see page 19). This will establish the baseline for a behaviour based

safety programme, raise awareness and provide guidance on how to meet specific standards. This, in turn, will feed into our PM Strategy. The purpose of this Maturity Matrix is to measure our teams belief of our behavioural maturity and to assist our teams in assessing our current level of embedment and to guide the teams through the development of improvement plans toward the right-hand side of the matrix.

The indicative questions will be aimed at identifying the level of maturity our teams believe we are as a project in each category with greater certainty. The indicative questions are progressive and reflect the increased believed levels of maturity as progress is made from the left to the right-hand side of the matrix.

**BADGER's A303 Project Collaboration Charter** will identify criteria for successful collaboration outcomes based around the CPF metrics. This will be developed into a series of contract conditions and scope requirements. Further details are given in **QS-18A,B,C**.

Our PM Strategy ensures the A303 Scheme will leave a skills and knowledge legacy. We will share learning from our PM processes in:

- Continual Improvement Plans (**A303 Performance Manual**)
- Monthly project reviews
- Raising the Bar HS&W Campaigns
- The A303 BIP App – articles and messages
- Onboarding events for new phases
- Industry wide events to share best practice
- Engagement with learning organisations.

## 1.2 BADGER Processes for Ensuring the Capabilities of our People

### STAGE 1: A303 HS&W Selection Rationale Matrix

Our matrix will identify the key criteria to drive selection rationale. It



will details qualifications and experience required for specific roles to form the basis of all job descriptions and adverts. BADGER will offer competitive remuneration packages as part of our incentivisation programme to recruit the best people. All workforce and supervisors will have the relevant training and qualifications for their roles.

## STAGE 2: Competency Matrix

This will identify key skills, qualifications and HS&W competency experience of our people, used to distinguish potential HS&W Champions to drive our messages on site and develop potential trainers. Outputs from the matrix will inform the HS&W aspect of our **Long-Term A303 Training Programme**, indicating areas of immediate-, medium- and long-term need. We will identify personal development plans aligned to organisational needs and opportunities.

## STAGE 3: Wellbeing

The wellbeing of all people is at the forefront of everything we plan, do and evaluate. Our HS&W promotion plan will include a planned calendar of wellbeing topics, linking to national and international campaigns covering such topics as:

- |                         |                     |
|-------------------------|---------------------|
| ▪ Heart Health          | ▪ Hydration         |
| ▪ Diabetes explained    | ▪ Alcohol awareness |
| ▪ Men's health          | ▪ Work-life balance |
| ▪ Stress and its causes | ▪ Mental Health     |
| ▪ Stop Campaigns        | ▪ Virus prevention  |

We will collaborate with local stakeholders to use their local knowledge of wellbeing facilities/ organisations for the benefit of our workforce. Mental health champions will be allocated and managed by our HS&W Manager to each working site to support and monitor the mental wellbeing of the workforce. (TQ1D1.2, TQ1D4.1)

## STAGE 4: HS&W Training and mentoring Programme

Our HS&W training programme will include continuous development of our workforce and supply chain (**S1101.2**) linking to individual development plans. The training will follow the timescale of the key scheme asset programme, keeping it current.

Our Safety Training Matrix will identify job roles and mandatory or recommended safety training for each role; updated regularly to ensure individual training certifications do not expire. We will use the competency matrix (p4) to identify any training gaps that need filling

The Training Matrix will set out safety courses for specific roles across the JV to ensure compliance with legislative duties. Individual site managers will populate their subsidiary training matrix with employee names, current certifications, expiry dates and forthcoming training courses. Project safety managers and advisors will provide on-site safety training for all levels of employees and subcontractors.

All new starters will be allocated a mentor as their first point of contact for the duration of the scheme. They will be responsible for leading on all onboarding and induction programmes, as well as regular pulse checks on scheme understanding, workload and wellbeing.

## 1.3. BADGER Processes for Setting Clear Expectations

### STAGE 1: Organisational Charts and RACI Matrix

Our organisational charts will provide clear lines of responsibility and accountability; shared during induction and available on the A303 BIP App daily. Our RACI Matrix will provide further detail of responsibilities across teams and phases, supporting collaboration between those of similar role within different phases of the scheme.

### STAGE 2: Digital Processes for collating all HS&W Information

Our HS&W Management System, along with our subcontractors, will comply with **ISO45001** accreditation and include:



- The operation of HS&W management systems
- Health surveillance
- A safety profiling system which is easily monitorable
- Project Data Analytics (**V2P5 4.2.4**).

The following will be incorporated into our digital processes, establishing a 'digital first' expectation for HS&W:

- Our 5G dedicated WIFI network to provide guaranteed communication network for all digital data management (**TQ1A2.4**) led by our Digital Lead.
- Twin Bentley will facilitate identification and mitigation of HS&W hazards and allows Architecture, Engineering and Construction teams to collaborate on BIM content in VR/AR from anywhere, including the use of an Immersive Media Player and drones for auditing, monitoring, mapping and logistics
- The A303 BIP App will deliver site specific HS&W messages
- The A303 BIP App will deliver recognition of individual/ team outstanding HS&W performance/ skills development and awards
- Personal QR codes will provide confidential but immediate identification of individual health issues
- Fully automated real-time performance reports for immediate feedback and action
- Digital reports facilitating an expectation exchange between managers and those they line manage. This will detail the expectations for both parties
- A digital site management software system such as BioSite.

### STAGE 3: Onboarding/ Immersion Programme

Our HS&W onboarding processes for leaders are detailed on page 3. They will be delivered by our Leadership Team to instil HS&W as a top priority. Included within this will be a focus on integration of the workforce into the local community, with an emphasis on behaviour expectations.

**BADGER's Workforce Consultation Programme** will be introduced during onboarding and induction activities to embed our safety first imperative. It will include a full calendar of consultation

events and other individual methods to involve the workforce in HS&W. Examples of consultation activities will include:

- Workforce HS&W Council which include BADGER's Leadership Team to hear concerns and ideas
- A303 BIP App spot surveys on HS&W issues
- A303 BIP App confidential reporting system as part of our Whistle-blowing procedures
- Involvement in the decision making processes concerning welfare facilities
- Appointment of HS&W Champions as beacons of good practice and mentors on site
- HS&W manager's site visits to hear real time concerns
- Workforce HS&W forums
- Encouragement of our workforce to partake in events to support charity-based incentive schemes as an aid to improving health and safety awareness (**S1104**).

## 1.4. Processes for Successful Engagement of Stakeholders with HS&W

### STAGE 1: Stakeholders HS&W information sharing

Supply chain stakeholders will be invited to join a Senior Supply Chain Steering Group to lead HS&W training amongst the supply chain. This training programme will be phase specific so that it remains current and adapted to meet emerging needs.

Local communities, road users and NMUs will be kept informed of aspects of the work that may impact them (via approved Highways England communication methods), including road closures, diversions or delays. Electronic signage will be used on and around affected areas giving notice of upcoming works.

Mitigation measures will be put in place to avoid noise, dust and vibrations (see **page 12**) and a 24 hour helpline will be in place for local residents.

Our Site Security Management Plan will detail all aspects of site



security, including visitors.

## STAGE 2: A303 External and Workforce Consultation Programme

To engage **external stakeholders** in HS&W, our consultation processes will be bespoke in terms of engagement, media and frequency. We may use ECHO as one engagement tool but look to use the most effective tool to capture individual stakeholder engagement. Our Customer Liaison Process (**S252.2**) will be produced within 12 weeks of the starting date, in full compliance with the A303 Customer Plan.

We will invite appropriate stakeholders to our HS&W forums to discuss any issue that may impact them and to provide an additional two-way communication tool.

Clear signposting and demarcation areas will be in place to support safety of the public, with access arrangements to restricted areas communicated 2 weeks prior to any changes via social and local media and hoardings (with acceptance from the *Project Manager*).

## STAGE 3: Register of stakeholder engagements and outcomes

Our Stakeholder Engagement Register will capture stakeholder HS&W engagements and outcomes and will feed into Highways England's CRM. This will facilitate the sharing of good practice across all stakeholders rather than it remaining in silos. The outcomes of this engagement process will be shared:

- During monthly project reviews
- At onboarding events for new phases
- As part of Raising the Bar HS&W Campaigns
- Via the A303 BIP App
- At industry events to share best practice.

## 1.5. Processes for Developing A Learning Organisation

### STAGE 1: Learning Management and Processes

Our approach to investigations in order to make mitigations

meaningful is founded on the following:

- Management led, competent team approach to investigation which is open and honest with clear transparency
- Identification of causes: immediate, underlying and root
- Actions to address the causes, firm recommendations and an action plan is in place
- Setting SMART objectives
- Workshops to review with the workforce, everyone to see the process together
- Feedback to all parties - ensure findings and recommendations are correct, addressing the issues and are realistic
- A reviewing team to look at good and bad processes impartially and to communicate lessons learned
- Lessons communicated, via A303 BIP App, alerts, Safety Hub, toolbox talks, briefings
- Monitoring of progress against the Action Plan
- Plan signed off by a member of the Senior Leadership Team
- Review of relevant Risk Assessments and Safe Working Procedures.

## Stage 2 HS&W Champions

Our management structure for HS&W will include the appointment of on-site HS&W Champions, designed to be site representation for all HS&W issues. This will include recording examples of good practice shared via the A303 BIP App, which will feed into site specific inductions. Our champions will work with the Digital Lead / team to review the progress and outputs of our embedding of Digital Construction Requirements from a HS&W focus. A specific focus will be feedback from the data received from vehicle telematic systems used to highlight compliant and, if necessary non-compliant procedures.

## STAGE 3: ISO 44001 Development Plan

Registering the A303 site for **ISO44001** Collaborative Relationships will provide a working structure and success criteria for us to use as part of our learning organisation. During onboarding, our ISO 44001





Development Plan will be shared with all relevant parties, with a focus on:

- The ISO 44001 objectives for each construction phase
- Ownership of each proposed activity
- Metrics and procedures for measuring outcomes
- Inspection and monitoring schedules
- Desired outcomes and impact
- Further actions if required.

#### STAGE 4: HS&W Best Practice Hub

BADGER will focus on the supply chain inputs and outputs from the Hub to challenge standards. BADGER's Best Practice Hub will be in physical and digital format. Where possible, other members of our workforce or visitors will be able to see actions and impact of our strategy on site. To reach a wider audience we will have a digital Best Practice Hub for HS&W. This will be found on the A303 BIP App but will hopefully form part of Highways England's Raising The Bar Campaigns to impact the wider construction industry. (TQ5B3.2, led by our HS&W Manager)

### 1.6 Developing our HS&W by Design Strategy

#### STAGE 1: BIM Protocols: Review Buildability and HS&W Issues

Our designers will use BIM protocols and modelling to challenge standards and encourage 'thinking outside the box.' BIM will be integrated into pre-design workshops with operators and maintainers, considering users and other parties affected by the scheme, including once it is operational. This will allow for integrated design reviews, interdisciplinary design checks and the review of interdependencies of hazard information relating to the design. ITwin as services will enable teams to visualise the project, track changes and perform 4D simulations.

The use of 3D visualisation will permit all stakeholders to understand how the design impacts them. The ability to 'see' the finished product will help to anticipate and resolve problems whilst

the works are still being designed, improving the overall design and reducing problems at later stages.

#### STAGE 2: Integration with Design Management, Soft Landings & Maintenance Development Plans

BADGER will ensure that our combined HS&W expertise is fully integrated into our design and planning teams to support the elimination of risk from the project at the earliest opportunity.

This pushes design and CDM Regulations far beyond their existing boundaries. We will have senior health, safety and occupational health professionals as an integral part of the design and review process. This will apply throughout the duration of the project from design phase through to operation and maintenance.

As part of the Design Management Process, BADGER's design team will review the pre-construction information (**S1108.4**) to identify practicable mitigation to any gap through survey and engineering to avoid HS&W issues. We will use this to predict the number of hours people are put at risk due to our construction methods. This innovation will enable us to substantially prevent the exposure to risk and to manage those residual risks that cannot be eliminated during the design phase. It will ensure our establishment and sites are planned, built and organised around safety.

The development of our Design Responsibility Matrix will ensure transparency of roles and responsibilities, all shared during onboarding and via the A303 BIP App. The development of design risk assessments takes into account who is impacted by the design, be it:

- Road user
- Customer Operations
- Employees
- Third parties e.g., emergency services and litter pickers.

By cascading our HS&W by Design Strategy through to our Soft Landings and Maintenance Plans, we start with the end in mind. We will involve our Soft Landings and Maintenance Teams in multi-disciplinary design meetings from the start, so they have genuine



influence over the design and its impact. This also determines the input of hazard identification and risk assessment workshops.

### STAGE 3: HS&W Risk Register

The above stages will support the development of our HS&W Risk Register (**S205, S1107**) which will inform our design risk assessment register and details:

- The classification of the risk
- Owner of each risk
- Who is impacted by the risk
- Desired outcomes
- Mitigation/ risk reduction actions.

Our inspection and monitoring procedures will incorporate the identified HS&W risks and provides feedback on outcomes. We will use independent inspectors to provide *Client* feedback for our HS&W by Design Strategy.

## 1.7 Outcomes and Maintaining Strategies

The processes outlined in **1.1-1.6** detail how we embed The Home Safe and Well Strategy. We are committed to the activities within our HS&W Embedment strategy and have set our targets high, to achieve the best results for our workforce, stakeholders and client. These are collated in the graphic on **page 20**.

## 2.1 The Identification of Key HS&W Risks and how they will be Mitigated

Our strategy for proactively managing risk on this project will be to identify and agree key risks and opportunities for mitigation from the outset. To achieve this, we will hold planned collaborative workshops where identified risks are captured in tracker registers and allocated to appropriate owners. Action plans will be created for the implementation of mitigation measures and the realisation of opportunities that demonstrate best value. This will provide a

framework for managing risk. It will be formalised within our Risk Management Plan (RMP), explaining our hierarchy of controls.

Wherever possible, risks will be avoided, and if this is not possible, we will seek to find ways of mitigating them using the latest technologies and engineering controls (**S1101.2**).

### 2.1.1 The Management of High Risk Activities

#### How BADGER Identify Risk

Risks will be identified using a comprehensive top-down/bottom-up approach through risk workshops. The Risk Register is central to the review process in which all key stakeholders of the project team will be involved. Our experienced team along with the supply chain will review the project details, visit the site, and draw down on their previous experience, as well as that of our specialist supply chain. We will incorporate risks identified on similar previous schemes, including mitigations and lessons learnt.

Strategic, tactical and operational risks will be owned by the leadership, management and delivery teams; assigned on a best practice basis. Follow-up reviews with owners will provide clear definition of each risk to progress the next stages, i.e., relevance, assessment, analysis and control. Collaborative meetings and workshops with stakeholders and the project team will improve transparency and engagement. Foremen and pit bosses will contribute to these workshops and be directly involved in the preparing of method statements and risk assessments. This approach will ensure any emerging risks are identified early.

A BRAG scoring system (Blue / Red / Amber / Green) will be applied through the Risk Register and used by the site team to:

- Define and measure the progress of mitigation measures
- Track trends in effective risk management performance
- Judge risk management performance recognising high levels of performance and / or providing early warning of potentially negative trends.



The identification of risk events is an ongoing process that needs regular review. Where control measures have effectively mitigated a risk, they will be closed on the risk register. The risk will remain on the register and retain its unique identification number to ensure an audit trail. Occasional reviews will be undertaken of closed risks to ensure that changing circumstances do not reactivate them. Where appropriate, digital tools will be used to understand and communicate risk events and their potential impacts.

### Control of Risk to Health and Wellbeing

BADGER is committed to ensuring that Health and Wellbeing are treated equally to Safety in both the construction and design of all of our assets. This means implementing the hierarchy of controls, ensuring those responsible for design are trained and competent, that they know what to look for, what to include. They will work closely with operations teams and support functions to ensure that design elements are created with constructability, safety, health and the wellbeing of the workforce in mind. This will require BADGER to inform, educate and train line management to achieve the following:

- Identify risk to Health and Wellbeing
- Implement BADGER hierarchy of controls
- Produce an accurate health risk assessment
- Understand and implement effective controls
- Support and implement health-surveillance programme
- Support and supervision of team members.

### BADGER hierarchy of controls:

**Eliminate:** The design team will maintain and update the Design Risk Register with health hazards and risks specifically identified. BADGER has identified the following specific health risk/conditions which will be managing at design stage: Exposure to noise and vibration: respiratory disorders (dust): cancer



causing sources: musculoskeletal issues: hazardous substances: skin disorders, Mental health: fatigue.

**Substitution and Engineering Controls:** BADGER, along with the substitution and engineering controls, will protect workers by removing hazardous conditions or by placing a barrier between the worker and the hazard. Examples include local exhaust ventilation to capture and remove airborne emissions or machine shrouds to shield the worker from noise.

**Information, Instruction and Training:** An important part of protecting those at risk is to make sure that they fully understand the hazard, its cause and the steps they can take to reduce the risk. Information, instruction and training will be provided to all employees likely to be at risk of health hazards. This will include:

- What is and why it is a hazard, the health effects of the hazard
- Sources of the hazard and how it has already been minimised in the workplace, e.g., the choice of process or equipment
- Whether the individual concerned is at risk, including how their exposure compares with the exposure action and limit values
- How workers protect themselves, recognise/ report symptoms
- How to recognise and report symptoms
- How health surveillance can help them remain at work and what the arrangements are for health surveillance
- The steps taken, or plan to take, to minimise the risk
- Where necessary, training in how to use equipment
- How to suggest changes and improvements to tools, methods or processes
- The employees' legal duties.

A record of all training delivered, and attendees will be maintained.

**PPE:** This is the last line of measures in a hierarchy of controls. It protects workers in scenarios where BADGER has not or cannot implement the other steps fully. PPE will include safety apparel and equipment like dust masks, coveralls, gloves. PPE will be fully assessed for each task and the appropriate types will be used.



## A303 High Risk Activities and Mitigation Actions



### Working in a Tunnel Environment Mitigation Measures



#### Design/ TBM Mitigation Measures



- Compliance to BS6164 as baseline minimum
- Design out the need for any temporary boards, manual handling
- Each tunnel segment has a precast insert for the avoidance of heavy drilling
- Use of pre-cast segments to reduce risk & programme time
- Seismic prediction system within the TBM to provide maximum information of conditions in front of the face
- Design of any temporary/ permanent works to adhere to Safety by Design & Joint Code of Practice (JCoP) for all risk management procedures
- No secondary lining to the tunnel eliminates a construction phase
- Grout is pumped directly to the TBM this reducing loads on MSVs
- Pipe jacking to construct the 23 cross- passages
- The inclusion of a precast gallery removing need for filling to the base of the tunnel

#### Environmental Mitigation Measures



- Digital air/dust monitoring & filtration system to maintain a safe breathable environment with automatic alert system for any exceedance of safe measure (CDM Reg 33)
- Use of electrically powered equipment (vehicles) within the tunnel to reduce NOx emission & particle pollution
- Positioning of Radon gas monitors when working in phosphatic chalk areas
- Risk assessment of working areas to dictate the need for water curtains to separate areas in the tunnel in case of fire
- Groundwater level monitors due to the groundwater aquifer responding quickly to rainfall events
- All tunnel machinery contains fire suppression equipment, and all operators are trained in fire safety

#### Training



- VR & AR training for operators of the TBM via the supplier
- TBM operatives & maintenance training programme
- Incident management training programmes to prepare for emergency situations
- Training of own emergency & rescue teams

#### Workforce Safety Mitigation Measures



- Tunnel access/ egress, controlled via biometric facial recognition through turnstiles
- Clear routes to the work front
- Strict separation of people and plant to minimise interface (dedicated worker walkways)
- Shift change routes defined to avoid overcrowding
- Tracking people in the tunnel via Bluetooth on cell phones
- Sufficient staffing to cover for sickness & absenteeism in each shift team
- Headsets are worn by operatives so their hands are free at all times
- Powerful headlight on hardhats for all tunnel workforce to enhance vision in all parts of the tunnel

#### Communication & Emergency Safety Measures



- Emergency communication & alarm stations
- Evacuation Plan training programme, drills, updated according to progress
- Minimum of 2 communication means (glass fibre optical technology) within the tunnel & whole site with desk WIFI/leaky feeder
- Refuge chambers in the tunnel every 1,000m & in reach of an Oxygen- Self-Rescuer
- Airlock with the TBM large enough for a stretcher & an additional person
- Engagement with local emergency services including measures ranging from safety audits, use of off duty fire personal to deliver training
- Emergency power & lighting facilities (UPS)

#### Welfare Measures



- Mobile first aid stations & increased levels of first aiders trained for each shift
- Voluntary Fit Bit wristbands to monitor fatigue and hydration levels
- Upgraded quality welfare 'trailer' facilities within the tunnel cleaned daily and replaced frequently





### Buried Services Mitigation Measures



#### Pre Works Mitigation Measures



- World Heritage & Environmental Agency liaison for any biodiversity impact of surveys, bore holes etc to agree & sign off method statements
- Assessment of personnel – permit to work/dig
- Review of site surveys & current asset register data provided by statutory undertakers
- Trial bore holes to confirm type & location of buried services – align to traffic management & site management plan to check for plant weight limit impacts on buried services with diversion plan developed and accepted
- GPR surveys conducted prior to any method & risk assessment drafting – asset data registers updated & incorporated within design and BIM
- Diversion & power transfer outages developed & agreed with statutory undertakers.

#### Site Establishment



- Demarcation of buried services is part of our method statements
- Design of any temporary or permanent works to adhere to Safety by Design and Joint Code of Practice (JCoP) for all risk management procedures
- Advance liaison with emergency services
- Vision services via - IPAD system recording on CAD location of all services and temporary cables we install, where the gang completing the dig can 'see' the underground services as they prepare to do the work
- Public Relations notices for any unavoidable power outages distributed early to allow for feedback and consultation considerations.

#### Lifting Operations Mitigation Measures



- Use of Power suits/ dynamic back supports for the installation of cables and pipes. This avoids the need for heavy or repetitive lifting (TQ-1D)
- Mobile cranes are used extensively to lift pre-fabricated concrete to working areas.
- A telescopic handler is operated on site to feed materials to loading bays & working areas
- A risk assessment & detailed method statement is implemented to prevent falling objects and plant toppling over
- There is a detailed lifting plan and compliance with LOLER Regs 1998
- An appointed person supervises all lift plans.

### Working at Height Mitigation Measures



#### Design/Pre Construction Mitigation Measures



- Design of temporary & permanent works adhere to safe by design standards & CDM 2015
- All possible fixing structures in the tunnel above the traffic envelope will be installed from the TBM Gantry
- Defect avoidance plans – to reduce any rework Safety by Design phasing of works to avoid working at height
- Use of pre-fabrication to remove unnecessary resources & workforce on site
- Method statements & risk assessment to fully comply with Working at Height Regulations - 2005
- Use of unmanned aerial vehicles for maintenance workers for auditing, inspection and data collection

#### Equipment and Training



- Safety precautions include scaffold inspection, safety netting, harness training and inspections
- Never Let Go tool tethering to prevent the dropping of tools
- Use of drones for tunnel inspections of ventilation and lighting
- Lifeguard training & equipment placed within working area
- Rescue plan and incident management training programme
- Use of VR to practice high risk activities safely
- Mobile first aid stations & increased levels of first aiders trained for each shift.

#### Dust Noise & Vibration Mitigation Measures



- Use of acoustic/ mist curtains/ environmental enclosures with specific reference to the tunnel portals
- Precast segments designed to have cast in inserts to avoid drilling
- Use of automated remote drilling tools
- Ear protection is mandatory at 85 dB. Full compliance with Control of Noise at Work Regs 2005. Additional PPE, sound suppressed plant, equipment & tools where possible
- Dust & noise monitoring equipment with automatic alerts for level exceedances
- Damping down of the works, haul routes are located away from sensitive areas & vehicles leaving the site are wheel washed.



### Open Excavations Mitigation Measures

Led by our HSW Manager as part of our HSW Implementation Plan

#### Design/ Pre Construction Mitigation Measures

- Design of temporary & permanent works adhere to safe by design standards
- CDM 2015 (Regulation 22) – temporary retaining wall structures
- World Heritage & Environmental Agency liaison for any biodiversity impact/environmental impact assessment of working area to agree & sign off method statements & CEMP prior to work commencing
- Safety by Design phasing of works to avoid open excavations
- Use of trenchless technology.

#### Training and Equipment

- Mobile first aid stations & increased levels of first aiders trained for each shift
- Safety precautions include scaffold inspection, safety netting, harness training and inspections
- Robotic equipment for backfill
- Safe working area barriers & exclusion zones for specific plant & personnel with clearly marked demarcation zones
- Rescue plan & incident management training programme.

#### Live Traffic Mitigation Measures

- Traffic flow assessments
- Safe points to start & finish crossing
- Adequate sight lines
- Minimum lateral clearance levels adhered to
- Clear demarcation areas/ signs
- High visibility PPE
- Variable message signs
- Elimination (where possible) of the need for road crossing by operatives & plant
- Use of SMART signs to allow immediate changes to traffic management signs
- Temporary works to build in traffic flows to generate suitable gaps
- When required, use of impact protection vehicles
- Use of automatic cone laying machines (TQ1B1.1).

## 2.1.2 The Mitigation of Risk for Plant and Operative Interfaces on Site

Each asset's construction phase will have its own Risk Management Plan detailing specific risks for plant and operative interfaces. Mitigation measures BADGER envisage including the following:

### Site Management Mitigation Measures

- Digital site management software, e.g. BioSite. This controls:
  - Site access via biometric facial recognition turnstiles
  - Plant movements and placement via RCID tracking
  - QR code registration for plant and maintenance records
  - Location overview on a digital map on the surface
  - Records competencies, PPE compliance and first language, checking method statement/risk assessments
- Use of proximity sensors e.g. PLINX
- Signalised pedestrian crossings
- Exclusion zones with clear demarcation to identify these e.g. PLINX
- EDI requirements planned into work schedules, allowing for prayer etc at nominated locations with defined safety routes
- Identification of key security and trespass risks
- Identification and plan for key events: Summer/Winter solstice
- Liaison with emergency services with site blue light route
- Removal of any member of staff from working areas displaying behaviour or attitude which could endanger themselves, others, or cause damage to plant/equipment (**S1106.4**)

### Training Mitigation Measures led by our HSW Manager

- Use of BIM to highlight daily route and site working area induction, to engage the workforce with safe crossing areas and any barrier/site changes. Updates provided on the A303 BIP App and welfare/mess intranet facilities.
- Use of digital rehearsals of construction methodology using virtual reality to not just see, but experience and truly understand and question the work in depth. (**TQ1A1.4**)
- Use of PLINX Teamtag, Hazard Tag and MachineTag to create safe working zones around people and plant providing audible and visual feedback as to any incursions. (**TQ1A1.6**)
- All of the above are part of our HSW Implementation Plan.



- Use of virtual reality for training purposes. For example, being able to 'walk' workforce through high risk elements such as the tunnel. This is used for simulating emergency situations
- Implementation of HSE 'Driving at Work' and Highways England's Driving for Better Business including systems for:
  - Assessing traffic management
  - Vehicle maintenance
  - Driver competency
  - Accident investigation
  - Provision of training
  - Driver safety
- Implementation of HSE's 'The safe use of vehicles on construction sites'

#### Monitoring Mitigation Measures

- Deployment of electronic cameras as a tool for monitoring workforce driving obedience to site rules
- Use of wearable tablets for use in confined spaces, particularly for conducting tunnel inspections. This is led by our HSW Manager (TQ1A1.5)
- Daily site inspections by area site supervisors to check for hazards and ensure site cleanliness and order

### 2.1.3 Stress, Absenteeism, Loss of Productivity

#### Stress

High levels of absenteeism and loss of productivity may be signs of stress amongst the workforce, therefore, we will monitor both, involving our HS&W Champions, workforce council and A303 BIP App satisfaction surveys. We will employ the following to combat stress:

#### Induction and Training Measures to Combat Stress

- Induction processes detailing our HS&W policy and behaviours emphasising workforce consultation, councils and forums and whistleblowing procedures
- BADGER mental health provision onsite immersion programme introducing the workforce to all our commitments to support mental health and to occupational health led by our HS&W Manager
- Use of motivational speakers to deliver powerful and personal HS&W messages across the workforce
- Engagement with the HSE 'Tackling work related stress using the Management Standards approach'

#### Welfare/Mental Wellbeing Measures to Combat Stress

- Flexible working patterns and breaks to suit need. Where suitable we offer part-time, home working arrangements
- Welfare facilities which meet the needs of our workforce

- Fitbit well-being wrist bands – managing fatigue
- Ongoing Buddy system for new starters to protect less experienced, vulnerable workers
- Onsite gym, prayer rooms and 24/7 assistance programme
- Skype/Zoom facilities on site to offer privacy for calls home
- Support with access to professional help through charities such as MIND, Lighthouse, Citizens Advice
- Use of external support for mental wellbeing including Mates in Mind, Building Mental Health, Mental Health First Aiders

#### Monitoring Measures to Combat Stress

- Daily automated testing for drugs and alcohol as use of these can be signs of stress. This is explained to the workforce alongside the legal requirements
- Interactive Health Kiosk which comprises a machine to undertake multiple inobtrusive health assessments, fed to site medical staff to instigate discussions/ measures.

In addition we will design an office environment that is conducive to health and wellbeing with enhanced facilities for the workforce. This will include the voluntary use of a hydration monitoring system. Our office will also include an interactive health and wellness kiosk for workers which provides a unique opportunity for **individuals to engage in their own wellbeing**, by taking a quick, confidential snapshot of their physical, mental and emotional health. (TQ1D1.1, led by our Design Manager with support from our HS&W Manager)

#### Absenteeism

As part of our monitoring of absenteeism, BADGER will look at overall and individual absence figures, also looking for:

- Patterns of absence which may be an indication of:
  - Undeclared carer responsibilities
  - Line management issues – harassment/ bullying
  - Fear/lack of knowledge for particular working methodology
- Reasons given for absence to support potential undeclared medical issues including Occupation Health nurse provision.



Support packages will be put in place with scheduled meetings. Back to work meetings will allow discussion of any issues where we can support.

### Loss of Productivity within the Workforce

Where there is a loss of productivity within the workforce it will be investigated so as to identify both cause and mitigation measure. The following principles will be applied to investigate any downturn:

Improving Productivity	Mitigation Action
<b>Efficiency</b>	<ul style="list-style-type: none"> <li>• Efficiency of plant and maintenance regime</li> <li>• Digital updates completed</li> <li>• Digital-first strategy reducing manual process</li> <li>• Check up to date training completed</li> <li>• Site inspections to ensure effective and safe workforce deployment</li> <li>• Focus on unproductive time and measures to reduce this e.g. Scheduling of deliveries</li> </ul>
<b>Support and Goal Setting</b>	<ul style="list-style-type: none"> <li>• Workforce consultation processes</li> <li>• Confidential reporting via the A303 BIP App</li> <li>• Clear standards and realistic goals</li> <li>• Recognition and rewards for targets achieved</li> </ul>
<b>Workforce Wellbeing</b>	<ul style="list-style-type: none"> <li>• Regular workforce pulse checks as part of workforce consultation</li> </ul>
<b>Trust and Training</b>	<ul style="list-style-type: none"> <li>• Invest in individual training programmes to support career development</li> <li>• Avoidance of micromanagement</li> </ul>
<b>Sharing of the Big Picture</b>	<ul style="list-style-type: none"> <li>• Regular reminders of the key scheme objectives and vision, linked to the role each member of the workforce plays in this</li> </ul>

#### 2.1.4 Different Languages within the Workforce

BADGER will undertake the following actions and management processes to mitigate against language barriers impacting on HS&W:

Action	Management Process
Data base of each language and number of speakers	<ul style="list-style-type: none"> <li>• This informs resource requirements and is updated regularly</li> </ul>
Initial language assessment to decide support measures required	<ul style="list-style-type: none"> <li>• We use the assessment to ensure all have a minimum understanding and ability to speak a little English</li> <li>• Management able to allocate appropriate support measure depending on results of assessments</li> </ul>
Recording of first language on management software	<ul style="list-style-type: none"> <li>• Management able to deploy translators/ native speaker supervisors to meet need</li> <li>• The A303 BIP App will translate into the appropriate language</li> </ul>
All inductions completed in the first language supported by translation software. This includes the use of JINCOM signs for visual standards	<ul style="list-style-type: none"> <li>• This includes use of signs the different nationalities may be used to seeing and what these look like/ signify in the UK</li> <li>• All inductions are followed by questions, either face to face or via the A303 BIP App to test understanding</li> </ul>
Each shift pattern planned for language barrier considerations; method statements/risk assessment briefings are in first language to ensure full understanding	<ul style="list-style-type: none"> <li>• Visual monitoring by site supervisors and HS&amp;W Champions will clarify if there has been full understanding. If not, work will be stopped to be explained further</li> <li>• Questions at the end of briefings or toolbox talks will be asked (via the A303 BIP App to check understanding)</li> </ul>
Training of HS&W rights of the workforce and UK standards	<ul style="list-style-type: none"> <li>• This will be regularly checked by native speaker supervisors and our HS&amp;W champions to ensure the workforce have a full understanding</li> </ul>
Workforce forums to hear the views of non-English speakers	<ul style="list-style-type: none"> <li>• Forums will be led by using translation software or translators where possible</li> <li>• Feedback will be provided in the appropriate language in the form of 'you said/ we did.'</li> </ul>

#### 2.2 How HS&W Performance is Measured, Assessed and Improved

Leading indicators will record the active attempts to improve safety culture, such as the number of behavioural safety observations, toolbox talks, and training sessions held or site safety tours.





To improve HS&W performance, BADGER will use a combination of Leading and Lagging indicators.

BADGER's HS&W Management System will record all HS&W assessments and metrics. Feeding into this will be the outputs from:

- Health Surveillance Programme according to risk assessments
- Our HSMM assessments
- Findings from weekly site inspections (**S1110.2, .4**)
- Use of leading indicators and an analytical data system such as Power BI to prevent these leading indicators becoming lagging ones based on outputs from trends reports
- Findings from independent site inspections
- CPF Evidence sheets
- Performance Management reviews relevant to SSPM 1: Safety.

The table below indicates our metrics, assessment measures and how these will be used to improve HS&W performance:

How we will Assess HS&W Performance	How we will Improve HS&W Performance
<b>AFR</b>	
<ul style="list-style-type: none"> <li>• Collation of all incidents</li> <li>• Inclusion of lost time accident rates</li> <li>• Use of CPF evidence sheets</li> </ul>	<ul style="list-style-type: none"> <li>• Causal analysis to initiate preventative measures</li> <li>• Trend Analysis results shared with workforce</li> <li>• Monthly action plan, targets set</li> </ul>
<b>Number of Workplace Incidents</b>	
<ul style="list-style-type: none"> <li>• Collation of all incidents</li> <li>• CPF evidence sheets</li> <li>• DMRB GG 128 'Requirements for reporting incidents, events and undesirable circumstances', evidence photographs taken on site</li> </ul>	<ul style="list-style-type: none"> <li>• Causal analysis to initiate preventative measures</li> <li>• Trend Analysis results shared with workforce</li> <li>• Monthly action plan, targets set</li> </ul>
<b>Days Lost to workplace Injury</b>	
<ul style="list-style-type: none"> <li>• Number of days collated</li> <li>• Weekly site inspections</li> <li>• Joint site inspections with the <i>Project Manager</i></li> <li>• Leadership site tours</li> </ul>	<ul style="list-style-type: none"> <li>• Causal analysis to initiate preventative measures</li> <li>• Trend Analysis results shared with workforce</li> <li>• Monthly action plan, targets set</li> </ul>
<b>Absenteeism</b>	
<ul style="list-style-type: none"> <li>• Number of days and reasons for absence collated</li> </ul>	See section 2.1.3

<b>Employee Wellbeing Satisfaction</b>	
Surveys via A303 BIP App Reports from workforce councils/forums Weekly site inspections Joint inspections with <i>Project Manager</i> Leadership site tours	<ul style="list-style-type: none"> <li>• Instigate actions – 'you said, we did' messages</li> <li>• Re-survey the same issue the next month</li> <li>• Reports from site inspections shared via A303 BIP App</li> </ul>
<b>Customer Satisfaction and Journey Time</b>	
Customer satisfaction surveys Journey time analysis Collation of any accidents involving the customer	<ul style="list-style-type: none"> <li>• Objectives and targets set on a monthly basis based on outcomes of assessment to form monthly dashboards</li> </ul>
<b>Productivity</b>	
Completion rates against target programme	<ul style="list-style-type: none"> <li>• See section 2.1.3.</li> </ul>
<b>Environmental Issues that may Impact on Health e.g. CO2 Emissions</b>	
<ul style="list-style-type: none"> <li>• Complete an Air Quality Dust Risk Assessment</li> <li>• Carry out Base line Air Quality</li> <li>• Monitoring Assess the Risk of Dust Impacts</li> <li>• Define the Sensitivity of the Area</li> <li>• Define the Risk of Impacts</li> <li>• Monitoring, depending on the above, can be weekly, monthly or continuous and/or when specific tasks are in operation.</li> </ul>	<ul style="list-style-type: none"> <li>• Instigate actions from monitoring results to improve air quality</li> </ul>

## 2.3 How we will Ensure Competence

### Competence of HS&W Key Personnel

HS&W responsibility lies with more than our HS&W leaders. As such we will undertake the following measures:

- A Competency Matrix detailing qualifications and experience, ensuring sufficient suitably qualified and experienced staff
- Training for HS&W gaps identified via competency matrix
- Training of all BADGER leaders in UK HS&W terminology and standards to ensure consistency of approach
- Induction of key personnel focusses on HS&W requirements
- HS&W training programme, construction phase-specific



- Regular reviews to discuss development/ training requirements. All training needs are re-assessed taking into account:
  - Changes in activities / site requirements
  - Changes in legal requirements
  - Objectives and targets
  - Trends in accidents, environmental incidents, and non-conformances
  - Industry/professional training standards and qualifications
  - Audit findings (requirements of standards and procedures)
  - Management review findings.
- An inspection and monitoring regime allows us to witness HS&W standards in operation and instigate required action/ training to mitigate potential issues
- HR to register with PearsonVue, applying to become a test centre. Linked to our training schedule including evening learning activities for further qualifications and competencies. **(TQ5A4.2)** Led by our Project Director supported by our Training Manager.

## Resource Requirements

During the tender stage, we will analyse the scope of works against the competencies and specialities of our HS&W department to allocate the most suitable resources. If we identify a gap in experience, we will have formal agreements with a number of specialist technical recruiters and provide a job description to ensure we recruit the most competent resource available.

During the mobilisation period, project leaders and the HS&W managers will consider the HS&W scope and where there are peaks the resource requirements will be reviewed. The programmes under the contract will identify current and forecasted resource requirements, forecast possibilities and encompass fully resourced loaded programmes aligned to project requirements to ensure specialist HS&W resources are managed effectively.

## Qualifications

Upon selection (following all requirements of **Annex C**) we will record all of our workforce's qualifications on our Competency Matrix including all vetting outcomes. Beyond those personnel listed in **Annex K**, we will verify all qualifications using a tool such as the CITB online card checker. This will allow us to see that all CSCS cards are valid and that all appointed site supervisors carry SSSTS certification or EU equivalent (**S680.6**).

We will record all training on our A303 Training Matrix and any qualifications this training leads to. This matrix will allow us to ensure all qualifications are up to date and identifies promotion potential.

### Workforce Engagement Methods

**HS&W Induction:** at the start of each new construction phase/ site opening, all relevant members of the workforce receive specific HS&W inductions and training. The A303 BIP App provides daily HS&W site updates (TQ).

**HS&W Information Stations:** positioned in site welfare facilities, in both graphic and text format, where applicable in different languages.

**Daily Briefings:** before work commences on site, daily HS&W briefings and/or toolbox talks take place delivering the most current information. Any HS&W alerts are issued via the A303 BIP App or our loud speaker CCTV system.

**HS&W step up and stand down days:** are utilised when a new risk or issue emerges to allow mitigation actions to be targeted and the workforce to be updated/ in receipt of additional training.

**HS&W Workforce Forums:** these include representatives from the workforce who meet with BADGER leaders once per month.

**A303 HS&W Training Plan:** this is issued to the workforce during induction. Updates to the plan are issued monthly.

**Seasonal Shutdown/Restarts:** Events that sandwich any site or activity shut down ensure that works areas are left in a safe state and that when works recommence they do so in a safe and controlled manner with all relevant mitigations and changes. These events are traditionally used to manage planned shut downs (i.e. Christmas & Easter periods).

**Planned Stand Downs:** Stand Downs are planned across the year to ensure that key, strategic messaging is delivered to the entire workforce and to provide an opportunity for the workforce to provide their thoughts and feedback on subject matters discussed.

**Lunch & Learn Sessions:** are organised when required and provide a quick overview of a relevant HS&W topic for specific members of the workforce.



## 2.4 How we will Ensure Engagement in Relation to HS&W

BADGER will facilitate both formal and informal engagement sessions, providing the workforce opportunity to have open, honest and frank conversations with management and leadership.

Formal, planned sessions will be regularly held at both site and overall project levels, designed to focus on key topic areas relevant to construction phasing and activities around the time of the engagement. Such sessions will also be arranged following a significant event on the project from which learning can be shared more broadly. Such sessions are applicable and valuable both in an office/non-construction environment and out at the workplace onsite.

### Stakeholder HS&W Engagement Methods

**HS&W Information Stations:** positioned on hoardings in both graphic and text format.

**Local Media:** BADGER provide the *Project Manager* with relevant HS&W information e.g. traffic diversions, good news stories, community updates, so that these may be relayed via local media channels.

**Customer Satisfaction Surveys:** conducted monthly using the information required in the CPF. Information from these is provided to the *Project Manager* during monthly project reviews. Actions resulting from issues raised are provided to the *Project Manager* for media distribution.

**Education Site Visits:** COVID 19 permitting, BADGER will establish an educational site office to support the HS&W training of apprentices or visits from other educational organisations. With permission from the *Client* this may be in a digital format, delivered via Webinars to reach a bigger audience.

**Contribution to Raising The Bar Campaigns:** In order to engage with the wider construction industry BADGER commit to contributing HS&W stories to Raising the Bar Campaigns.

**A303 Workforce HS&W Charity Events:** Liaising with HS&W local charities, we engage our workforce in local events to support positive community relationships. Where possible we link these events to our healthy lifestyle objectives for our workforce e.g. anti-smoking, healthy eating.

### Community Engagement:

- Offer open days/evenings to local community
- Meet the team to discuss what is being done, and how it is being done
- Take questions etc
- Wine/cheese evenings
- Light lunches
- Breakfast meetings.

**HS&W awards, rewards and recognition:** are communicated regularly detailing both personal and whole team successes in this area. Personal messages from the Leadership Team are sent via the A303 BIP App to congratulate recipients.

**A303 Workforce HS&W Charity Events:** Liaising with HS&W local charities, we engage our workforce in local events to support positive community relationships. Where possible we link these events to our healthy lifestyle objectives for our workforce e.g. anti-smoking, healthy eating.

**Whistle-blowing Policy:** provides assurance of anonymity to any whistle-blower. In addition our A303 BIP App offers a confidential reporting function for HS&W concerns. Our workforce are empowered to stop work if they feel unsafe.

**Leadership Site Tours:** BADGER's Leadership Team undertake monthly site tours. This promotes their visibility and allows for them to see first-hand HS&W procedures in action as well as providing the workforce with the opportunity to deliver HS&W feedback in person.

**High Quality Welfare Facilities:** providing our workforce with outstanding welfare facilities demonstrates our commitment to HS&W as a primary imperative. The establishment and development of these facilities is completed through workforce consultation.

**HS&W Surveillance Programme:** this is introduced from the start of the scheme. It is aligned to our risk assessment, allowing us to target specific work areas and to detect any ill-health effects at an early stage. From this surveillance we instigate further controls if necessary. Training is reinforced across the relevant workforce if required.



## BADGER ill health policy

**BADGER will develop a work-related ill health policy** which will become part of our recruitment literature. BADGER will aim to **eliminate the** key factors associated with work related ill health and sickness absence in employees. We will focus on key measures, at all levels, balancing the needs of the project team against the needs of the individual.

Work related ill health includes;

- Stress, depression or anxiety
- Musculoskeletal disorders
- Work-related asthma
- Occupational lung disease
- Noise induced hearing loss
- Occupational Dermatitis
- Asbestos-related disease.



**A303 BEHAVIOURAL SAFETY MATURITY ASSESSMENT MATRIX**

This matrix highlights where an Individual Projects/Contractors believes they currently are on their behavioural safety journey. The Implementation Action Plan should be referred to for actions to demonstrate improvement towards the goal of ensuring everybody can say, “The A303 is the safest place we’ve ever worked.”

CATEGORIES	INFANCY	DEVELOPING	EVIDENT	ESTABLISHED	INTEGRATED/ CONTINUOUSLY DEVELOPING	“The safest place we’ve ever worked”
	No strategy in place for the effective implementation of Behavioural Safety. Awareness of the key Behavioural Safety principles still in it's infancy. Little understanding across management levels of the impact and importance good leadership has on effective behavioural & cultural change	Basic strategy developed and implementation is underway. Understanding from management on how their contribution impacts on achieving behavioural & cultural change	Active engagement of Directors, Managers and Employees in Behavioural Safety is apparent. Leaders' commitment is unmistakable through development of relationships at every level.	The key characteristics of Behavioural Safety are present at all levels including parts of the supply chain. Leaders demonstrate role model behaviour in their approach to behavioural and cultural change. A culture of empowerment is encouraged and apparent.	It is clear that safety is a core value for all stakeholders and working unsafely is not tolerated at any level. Cultural improvement programmes form part of the daily management plans. Recognised as a world class performer with regard to behaviour, culture and continuous improvement.	
<b>LEADERSHIP</b>	Little awareness and promotion of Behavioural Safety principles with limited involvement in Behavioural Safety training sessions and delivery of key senior management messages.	Leaders are able to demonstrate a good understanding of their key role in the promotion of Behavioural Safety. Many are actively demonstrating their commitment but some Leaders still revert to a different behaviour pattern when pressure is exerted on cost or programme.	Leaders are actively involved in Behavioural Safety and this is clearly evident to all staff. Issues from the workforce are dealt with and fed back to individuals following actions. Commitment is demonstrated in all public forums.	Role model behaviour is clearly demonstrated and is considered genuine by the workforce. Leaders attend Behavioural Safety briefings /forums as a matter of course and encourage daily employee involvement. Leaders are clear about their goals regarding safety and set the direction for their people.	All Leaders are totally committed to the world class performance and will not compromise their safety commitments when other pressures are exerted. Their commitment to Behavioural Safety is set above any priority that comes through their daily life.	
<b>SUPERVISORS</b>	Supervisors have little awareness of their role and the impact they can have in creating a zero accident culture. Production is seen as priority.	Some Supervisors are beginning to implement the key Behavioural Safety principles and engaging their operatives in open communication regarding safety issues on site.	Daily activity briefings and pre task planning are present on all sites. Supervisors take responsibility for creating a safe working environment, encourage their team to look out for each other at all times and recognise safe behaviours.	Supervisors lead & champion the development of an Behavioural Safety Culture on their site. Working in a safe manner at all times is now becoming the norm.	Supervisors proactively seek ways to improve the working environment to remove all risks. They are recognised as leading by example in relation to safety and productivity.	
<b>EMPLOYEES</b>	Employees have had little exposure to Behavioural Safety and are unwilling to contribute to a safe working environment believing they have no empowerment. There is little communication with Senior Managers.	Employees have attended the Behavioural Safety briefings/ training and ad hoc near miss reporting is beginning to occur. Employees are beginning to play an active part in safety, undertaking training and being involved in promoting safe behaviours amongst their peers.	Employees are actively involved in Behavioural Safety and feel able to raise unsafe situations with line management without retribution. There is some recognition of the need to protect other employees from potential risk.	All employees are confident in their ability to contribute to establishing and maintaining a safe environment. Conversations regarding working methods are based around Behavioural Safety messages and there is a strong rapport between all employees who genuinely want to protect each other from injury.	Employees confidently provide solutions to their line management regarding unsafe work practices. Employees clearly look out for each other and do not tolerate any unsafe behaviour. Zero accident is a state of mind and attitude that is obvious in all employees.	
<b>SUPPLY CHAIN</b>	Some supply chain partners have little involvement in behavioural safety, their understanding and exposure is limited and mainly driven by the principle contractor.	Behavioural Safety performance requirements are understood and are being followed by the majority of supply chain partners through their attendance on briefing/ training sessions.	Active Behavioural Safety approach is used by supply chain partners, engagement is evident at project and Leadership level. Supply chain regularly achieving a high performance of HS&E.	There is self motivation towards safety excellence, leading the way in many instances and prepared only to work on projects where assurances regarding excellent HS&E performance can be established and maintained.	Supply chain partners are self sufficient in their approach to Behavioural Safety, with their own resource to deliver and develop their own continuous programme. They are proactive in sharing best practice and engaging others to encourage learning across different industries.	

