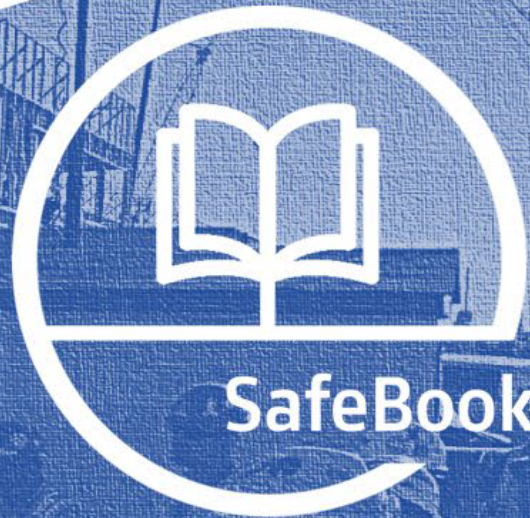




ICM

Infrastructure Construction Management



SafeBook



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List of Acronyms and Abbreviations

ANSI	American National Standards Institute
CPR	Cardiopulmonary Resuscitation
°C	Degrees Celsius
EAP	Emergency Action Plan
EMR	Experience Modification Rating
FB	Facebook
GC	General Contractor
CPM	Contractor Project Manager (GC Partner)
CSM	Contractor Safety Manager (GC Partner)
°F	Degrees Fahrenheit
GFCI	Ground Fault Circuit Interrupter
ICM	Infrastructure Construction Management – Facebook
IIPP	Injury and Illness Prevention Program
JHA	Job Hazard Analysis
LO/TO	Lockout/Tagout
mph	Miles per Hour
NFPA	National Fire Protection Association
OAR	Owner’s Authorized Representative
OCIP	Owner-Controlled Insurance Program
OSHA	Occupational Safety and Health Administration
PAT	Powder-Actuated Tool
PFAS	Personal Fall Arrest System
POV	Personally Owned Vehicle
PPE	personal protective equipment
PTP	Pre-Task Plan
SCPM	Supply Chain Partner Project Manager
SCSM	Supply Chain Partner Safety Manager
SCSR	Supply Chain Partner Safety Representative
SDS	Safety Data Sheet
SSSP	Contractor’s Site-Specific Safety Plan (GC Partner)

Revision History

DATE	DESCRIPTION OF REVISION	INITIATED BY	REVISION NO.
8-7-17	Initial protocol	Chris Sarvis	1
5-2-18	Major revisions, additions, formatting and editing for readability	Steve Yip	2
12-17-18	Revision to wording, applicability to Non-US sites, title change.	Michael Tynan, Steve Yip, Chris Sarvis	3
10-31-20	Revision and recommendations from all trade partners were reviewed (Survey Monkey)	Chris Gitch, Loss Control Team	4

1. Purpose and Scope

1.1 Purpose

- A. Facebook is committed to incident-free, injury-free, and healthy workplaces. This program combines the efforts of our partners into a continually evolving risk management program, where employees recognize risks in the workplace and take proactive steps to ensure they, and their coworkers, complete their jobs safely and efficiently. Facebook welcomes feedback from our partners to better implement this program and improve safety performance at our job locations.
- B. The purpose of this SafeBook Standard document is to define additional safety expectations beyond statutory, regulatory, and industry standards, which are required to be implemented on all FB ICM controlled job locations and provide guidelines for implementation of these expectations.
- C. In the event of any conflict between the provisions of this manual and any applicable federal, state, or local laws, codes, ordinances, regulations, standards, rules, requirements, or orders, the more or most stringent provisions will apply.

1.2 Scope

- A. This manual applies to all work performed under the ICM umbrella regardless of the party controlling the insurance program. Requirements of this manual may be waived for special circumstances (small, unordinary work) with written approval from the FB ICM team.

1.3 Revision

- A. This manual will be revised, in conjunction with FB's other construction documents, a minimum of once per calendar year. Prior to revision, comments and feedback from program participants (GC Partners, Supply Chain Partners) will be gathered and considered for inclusion in the revision.

2. Definitions

2.1 Authorized Person

The term "authorized person" is used in reference to an employee's assignment. Such an employee has been selected by their employer for a specific purpose and has been given the responsibility and authority to implement specific portions of their employer's health and safety programs.

2.2 Competent Person

A competent person is one who is capable of identifying, through training, knowledge, and/or experience, existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them. For tasks which require competent person(s), the competent

person(s) will be designated in writing.

2.3 GC Partner

The General Contractor (GC) Partner is the party with which the Owner enters into a contract. The GC Partner is responsible for functioning as the controlling entity for all construction-related tasks, and is referred to as the 'GC Partner' throughout this manual.

2.4 GC Partner Safety Manager (CSM)

The GC Partner Safety Manager (CSM), is a full-time GC Partner employee who is dedicated to implementing and enforcing the SSSP, applicable standards, this Safebook Manual, IIPP, and reference documents.

2.5 Employee

An employee is a person who is employed by an employer and tasked with performing construction-related tasks.

2.6 Employer

An employer is a firm, company, or entity with employees working on site under the jurisdiction of FB ICM. An employer may refer to the GC Partner, Supply Chain Partners, vendors, suppliers, service providers and any other entities performing construction related activities.

2.7 Executive Leadership

Executive Leadership refers to an employer's leadership who is not located at the project, and is not engaged in the day-to-day operations of the employer at the project level.

2.8 Local Agency/ Authority

Local Agency/Authority refers to state, federal, and local entities (typically governmental) with jurisdiction for enforcing regulatory and statutory workplace safety, health, and environmental requirements. All Employers are to meet these requirements at a minimum. Examples of Local Agencies/Authorities include, but are not limited to the following:

- United States: Occupational Safety and Health Administration (OSHA)
- Ireland: Health and Safety Authority (HSA)
- Sweden: Swedish Work Environment Authority (SWEA)
- Denmark: Work Environment Authority (WEA)
- Singapore: Ministry of Manpower (MOM)

2.9 Owner

The "Owner" is the client for which the project(s) is being performed. In the case of this manual, it is the FB ICM Team.

2.10 Owner's Authorized Representative

The Owner's Authorized Representative (OAR) is the Owner's employee, or designee, who provides oversight to the safe execution of the project as per the terms of the contract. The OAR holds final responsibility for decisions pertaining to compliance with this manual. This is typically the ICM Loss Control Engineer, if present on the project, or the ICM Construction Manager.

2.11 Owner-Controlled Insurance Program

The Owner-Controlled Insurance Program (OCIP) is an insurance policy held by a property Owner during the construction or renovation of a property. The Owner determines eligibility for this program through a pre-qualification process.

2.12 Qualified Person

A “qualified person” is one who, by possession of a recognized degree, certificate, or professional standing, or by extensive knowledge, training, and experience, has successfully demonstrated the ability to solve or resolve problems relating to the subject matter, the work, or the project.

2.13 Site-Specific Safety Plan

The GC Partner SSSP is a document designed to identify processes and procedures, specific to the site, that are used by employees to safely complete their tasks. The SSSP will be developed by the General Contractor Partner and its Subcontractors and will incorporate company policies and procedures, site-specific information, and the minimum expectations which are expressed in this manual.

2.14 Supply Chain Partner

A Supply Chain Partner is an entity to whom the GC Partner has awarded work including all tiers of subcontractors, vendors, suppliers, and other entities providing services for the GC Partner. For OCIP (US Only) projects, this includes all enrolled entities, and any excluded entities performing services under the GC Partner's contract.

2.15 Supply Chain Partner Safety Manager (SCSM)

The Supply Chain Partner Safety Manager (SCSM) is a management level employee of the Supply Chain Partner who is dedicated to the roles and responsibilities of the SCSM, is on site whenever work is ongoing, and has no production responsibilities. Additionally, the SCSM will maintain and enforce the Supply Chain Partner's SSSP in accordance with the minimum expectations defined in the GC Partner's SSSP.

2.16 Supply Chain Partner Safety Representative (SCSR)

A Supply Chain Partner Safety Representative (SCSR) is required whenever a SCSM is not available. A SCSR is an onsite, supervisory level employee who maintains and enforces the Supply Chain Partner's SSSP and fulfills the expectations of the SCSM.

3. Roles and Responsibilities

This section provides a list of the roles, responsibilities, and requirements associated with this document.

3.1 GC Partner

The GC Partner has the responsibility for initiating, maintaining, enforcing, and supervising all safety efforts and programs; and is responsible for all work conducted by its own employees and Supply Chain Partners.

3.1.1 General

- A. The GC Partner will develop a holistic safety culture which proactively identifies and mitigates risks.
- B. The GC Partner will meet or exceed applicable federal, state, and local health and safety laws, regulations, and requirements for the tasks being performed.
- C. The GC Partner will adhere fully to their own health and safety programs and training requirements, which will be updated and revised as conditions change.
- D. The GC Partner will use reporting and recordkeeping tools/software as requested by the Owner.

3.1.2 Preconstruction and Preparation

- A. For each sub-contract awarded, the GC Partner will facilitate a Safety Kick-Off Meeting with the Supply Chain Partner(s) which will outline GC Partner and Supply Chain Partner(s) safety programs and expectations (SSSP), available resources, anticipated risks, and proposed controls. Attendees will include SCPM, SCPM, Supply Chain Partner field supervision (foreman, superintendent, etc.), and GC Partner staff overseeing the work.
- B. GC Partner employees will complete appropriate and applicable health and safety training prior to the start of construction activities.
- C. The GC Partner will develop a written SSSP encompassing the requirements of this manual, regulatory laws/standards, and industry guidelines. The SSSP will be submitted to the Owner (OAR) for approval two weeks prior to the start of construction activities. It will also be reviewed annually. If changes are made to the SSSP, it must be re-submitted to the Owner for review. Delays caused by failure to promptly submit or gain approval are not acceptable reasons for project schedule delays.
- D. The GC Partner will develop a logistics plan, which is submitted to the owner for approval at least two weeks prior to the start of construction activities. This logistics plan will be developed as per the requirements of this manual.
- E. The GC Partner will develop an Emergency Action Plan (EAP) outlining procedures for anticipated emergencies. The EAP will be developed based on the requirements of this manual. The EAP will include communication procedures and coordinate with the Owner's protocols.
- F. All GC Partner Staff, who directly manage, or oversee construction activities (Superintendents,

Foremen, CSMs, Safety Representatives, Commissioning Managers, QA/QC staff, and similar), will have completed an OSHA 30 Hour Construction Outreach course, or equivalent, within the last 3 years. For non-US sites, acceptable equivalents include IOSH Managing Safely in

Construction, and CITB's Site Managers Safety Training Scheme (SMSTS). The GC Partner may substitute other courses with Owner's approval.

- G. All GC Partner Staff, who do not fall into the previous requirement (Project Managers/Engineers/Executives, Accounting/Financial staff, Admin staff, and similar), will have completed an OSHA 10 Hour Construction Outreach course, or equivalent, within the last 3 years. For non-US sites, acceptable equivalents include IOSH Supervising Safety in Construction, and CITB's Site Supervisors Safety Training Scheme (SSSTS). The GC Partner may substitute other courses with Owner's approval.
- H. The GC Partner will administer a Supply Chain Partner pre-qualification program that includes the minimum Prequalification Criteria outlined below:
 1. All Sites
 - a. Safety statistics from OSHA 300 Log or similar log of local authority/agency reportable incidents for previous 3 years.
 - b. Local Agency/Authority inspection experience history for previous 5 years.
 - c. Resumes, including certifications, for employees functioning in safety capacity (SCSM, SCSR)
 - d. Project specific safety performance (statistics, incidents, etc.) for three similar size and scope projects within previous three years.
 2. Non-US Sites
 - a. GC Partners will reference internal processes and local best practices such as HSE (UK) INDG368 *Using Contractors*. Pre-qualification procedures and standards will be detailed in the SSSP. For Supply Chain Partners which are determined to be "high-risk" according to the prequalification process, a similar evaluation and approval process as US Sites will be used.
 3. US Sites
 - a. GC Partners will use the Experience Modification Rating (EMR) evaluation which will require any Supply Chain Partner with an EMR in excess of 1.00 undergo additional evaluation and Owner approval. The additional evaluation will include the following:
 - Comprehensive review of Supply Chain Partner's health and safety programs and SSSP.
 - GC Partner approved SCSM.

- Written explanation as to why EMR is in excess of 1.00.
- Written mitigation plan including GC Partner approved Job Hazard Analyses.

3.1.3 Orientation and Security

- A. The GC Partner will conduct a safety orientation, in accordance with this manual, for all incoming employees (this includes Supply Chain Partner employees).
- B. The GC Partner will conduct orientation for visitors and vendors appropriate for their exposures and time while on site.
- C. The GC Partner will identify employees who have completed orientation and are approved to work on site through an identification and site access system such as photo ID cards, hardhat stickers, or similar. This system will identify employees by a number or code for use in tracking approved employees.
- D. The GC Partner will ensure all employees display their name on their hard hat.

3.1.4 Incidents

- A. The GC Partner will report incidents to the Owner and maintain the Incident Log as specified in this manual.
- B. The GC Partner will document incident area (pictures, diagrams, reports, etc.), ensure reasonable efforts are made to mitigate incident damages, and allow Owner, or Owner's designee(s), to investigate incident area.
- C. Return-to-Work/Modified Duty
 1. If an injured employee requires offsite treatment, the GC Partner will designate a CSM/SCSM, or other representative, to accompany the injured employee to the clinic/hospital to assist in getting prompt care to the employee, and to inform the attending physician/medical professional that modified duty can be accommodated.
 2. The GC Partner will verify Supply Chain Partners implement an aggressive Return-to-Work program in which injured employees continue working while attending physician restrictions are accommodated. The GC Partner will assist Supply Chain Partners in identifying reasonable accommodations. The Owner will be informed when attending physician restrictions cannot be accommodated.
 3. For employees who may not perform any work until released by attending physician, the GC Partner will coordinate with the Supply Chain Partner and attending physician to return the employee to work as quickly as reasonably possible.

3.1.5 Construction Operations

- A. The GC Partner will publish weekly, an upcoming activity schedule (e.g. 6 Week Look Ahead)

which is inclusive of the risks and controls associated with the scheduled activities. The Owner may request additional information about controls and mitigation strategies.

- B. The GC Partner will coordinate GC Partner's and Supply Chain Partners' work areas to minimize hazard exposure between work groups.
- C. The GC Partner will implement a rigorous housekeeping program in which all employers maintain their work areas to be free of debris, rubbish, and ancillary construction materials.
- D. The GC Partner will conduct and document a daily safety inspection for all job locations. The Owner may request this inspection be recorded on Owner's designated software (e.g. BIM360).
- E. The GC Partner will coordinate a weekly formal safety inspection of all work locations with participation from all SCSMs/SCSRs. The observations resulting from these inspections will be documented on the Owner's designated software (e.g. BIM 360).
- F. The GC Partner will facilitate a documented (agenda, notes, attendance, actions) bi-weekly Project Safety Committee Meetings with SCSMs, SCSR, Owner, and other interested parties to coordinate work and resolve any project related safety, health, and environmental issues. The Owner or Committee participants may request additional Project Safety Team Meetings.
- G. The GC Partner will verify all Supply Chain Partners conduct documented daily production and safety meetings (i.e. Pre-Task Plans).
- H. The GC Partner will maintain a project-wide list of all, including Supply Chain Partners, competent and qualified persons. The list will be updated as necessary to reflect current personnel status. Additionally, the GC Partner will verify copies of all relevant certifications and training records for competent and qualified persons are available.
- I. The GC Partner will implement a Field Supervision Empowerment and Engagement Program (e.g. Blackhat Program) to promote field supervisor (foremen, leads, superintendents, etc.) safety advocacy, involvement, and engagement.
- J. All GC Partner Staff, who directly manage, or oversee construction activities (Superintendents, Foremen, CSMS, Safety Representatives, Commissioning Managers, QA/QC staff, and similar), will participate in a GC Partner, or Supply Chain Partner, Pre-Task Planning session a minimum of once per week.

3.1.6 GC Partner Safety Manager (CSM)/GC Partner Safety Representative

- A. A CSM will be available on site when any construction activities are occurring, including multiple shift scenarios. During night or weekend work when no hazardous activities are occurring, an approved GC Partner Safety Representative, or GC Partner Supervisor, who is competent in the role of the CSM, may fulfill the CSM function. Hazardous activities include any work which requires GC Partner permitting or authorization for the work to occur (hot work, confined space, cranes/lifting, excavations, Lockout/Tagout, etc.)
- B. A GC Partner Safety Representative is a GC Partner Safety Professional who does not possess the minimum qualifications of a CSM. GC Partner Safety Representatives do not count toward the

ratio of the minimum required CSMs.

- C. An additional CSM is required for each increase of 350 GC Partner and Supply Chain Partner employees on site. The maximum number of employees on site may be exceeded for up to 14 calendar days. CSM to employee ratio is below.

Number of Employees	Number of CSM required
1 – 350	1
351 – 700	2
701 – 1050	3
1051 – 1400	4

D. CSM Minimum Qualifications

1. Be approved by the Owner. Resume(s) submitted to Owner two weeks prior to the start of work.
2. Possess relevant certification and education which includes at least one of each in the following categories:
 - a. Education & Certification
 - Certified Safety Professional (CSP)
 - Associate Safety Professional (ASP)
 - Construction Health and Safety Technologist (CHST)
 - Occupational Health and Safety Technologist (OHST)
 - Graduate or Chartered Member of the Institute of Occupational Safety and Health (IOSH)
 - Safety Trained Supervisor – Construction (STS-C)
 - Bachelor's degree or higher in EHS discipline or EHS related field
 - b. Training: Required within last three years
 - NEBOSH Certificate/Diploma (EU and Asia)
 - OSHA 30-hour Construction Industry Outreach Training course (US)
 - c. Experience
 - A minimum of three years' experience with similar project size and construction

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- d. Provisional exceptions to these requirements may be made by the Owner, but may be revoked at any time by the Owner.

E. CSM Responsibilities

1. Serve as an ambassador for the Global Safety Team, promoting the principles and commitments of the Global Safety Charter.
2. Have no other duties other than safety-related tasks and possess management authority.
3. Communicate effectively with employees.
4. Be current in cardiopulmonary resuscitation (CPR)/first aid training from a provider that is recognized by the Local Agency/Authority accreditation body.
5. Be capable of conducting a complete incident investigation.
6. Maintain the GC Partner's list of incidents and OSHA 300 log or equivalent log of incidents, injuries, and corrective actions.
7. Maintain current understanding of applicable safety and health regulations, standards, and best practices.
8. Review and approve GC Partner and Supply Chain Partner PTPs and JHAs as necessary.
9. Routinely verify special procedures are being executed correctly (confined space entry, LO/TO, excavations, hot work, etc.)
10. Routinely verify safety orientations are conducted as specified in the SSSP.
11. Ensure all safety training certifications and records have been verified and documented.
12. Coordinate regulatory agency inspections and notify all affected parties (Supply Chain Partners and the Owner).
13. Meet any additional requirements as defined in SSSPs, GC Partner internal standards, and Local Agency/Authority regulations.
14. Document observations and use software platforms as requested by the Owner/OAR (e.g. BIM360 or similar).

3.2 Supply Chain Partners

The Supply Chain Partner is responsible for initiating, maintaining, supervising, and enforcing the safety requirements outlined in this SafeBook manual and in the GC Partner's SSSP. Furthermore, the Supply Chain Partner is responsible for ensuring safety and health provisions are enacted for their workforce.

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3.2.1 General

- A. Develop a holistic safety culture which proactively identifies and mitigates risks.
- B. Meet or exceed applicable federal, state, and local health and safety laws, regulations, and requirements for the tasks being performed.
- C. Adhere fully to their own health and safety written programs and training requirements, which will be updated and revised as conditions change.
- D. Adhere to the GC Partner's SSSP, safety orientation, and other established safety requirements.
- E. Use reporting and recordkeeping tools/software as requested by the Owner, and/or GC Partner.

3.2.2 Preconstruction and Preparation

- A. Develop a SSSP and submit to review by the GC Partner two weeks prior to the commencement of the Supply Chain Partner's work.
- B. Complete a comprehensive risk analysis of all work to be performed to produce a Job Hazard Analysis (JHA) which identifies hazards, mitigations, and levels of risk associated with the work to be performed. Additionally, the JHA will note where the tasks will be performed on site to assist in schedule coordination. The SCSM will review the JHA and submit to the GC Partner for review prior to the Safety Kick-Off meeting.
- C. Participate in the Safety Kick-Off Meeting(s), facilitated by GC Partner, as specified in section 3.1.2.
- D. Assist in completion of Supply Chain Partner prequalification program, as defined in section 3.1.2, for sub-tier Supply Chain Partners.
- E. Complete appropriate company health and safety training applicable to their planned function on FB ICM DC locations prior to start of work.
- F. All Supply Chain Partner Staff, who directly manage, or oversee construction activities (Superintendents, Foremen, Leads, SCSMs, Safety Representatives, Commissioning staff, QA/QC staff, and similar), will have completed an OSHA 30 Hour Construction Outreach course, or equivalent, within the last 3 years. For non-US sites, acceptable equivalents include IOSH Managing Safely in Construction, and CITB's Site Managers Safety Training Scheme (SMSTS). The Supply Chain Partner may substitute other courses with the GC Partner's approval.
- G. All Supply Chain Partner Staff, who do not fall into the previous requirement (Project Managers/Engineers/Executives, Accounting/Financial staff, Admin staff, and similar), will have completed an OSHA 10 Hour Construction Outreach course, or equivalent, within the last 3 years. For non-US sites, acceptable equivalents include IOSH Supervising Safety in Construction, and CITB's Site Supervisors Safety Training Scheme (SSSTS). The GC Partner may substitute other courses with GC Partner's approval.

3.2.3 Orientation and Security

- A. Verify all employees complete site orientation program administered by GC Partner. Administer further company specific orientation as necessary to adequately prepare employees for working on the project.
- B. Provide method for displaying employees' names on their hard hat.

3.2.4 Incidents

- A. Immediately report incidents (including near misses) to GC Partner and/or Owner, assist in investigations, and implement corrective actions.
- B. Make reasonable efforts to mitigate damages resulting from incidents, assist in documenting incident area (pictures, diagrams, etc.), and allow GC Partner and Owner, or designee(s), to investigate incident area.
- C. Return-to-Work/Modified Duty
 - 1. When designated to accompany an employee for offsite treatment, assist the employee in receiving prompt care and inform attending physician/medical professional about modified duty accommodations.
 - 2. Implement an aggressive Return-to-Work program in which injured employees continue working while attending physician restrictions are accommodated.
 - 3. Coordinate with GC Partner and attending physician to quickly return employees to work, who currently may not perform work due to attending physician restrictions.

3.2.5 Construction Operations

- A. Conduct documented daily production/safety meetings which detail how tasks will be safely performed (i.e. Pre-Task Plan).
- B. Assist GC Partner and other Supply Chain Partners in coordinating work areas to minimize hazard exposure between work groups.
- C. Provide weekly to the GC Partner, or at an interval specified by the GC Partner, a Supply Chain Partner activity schedule which is inclusive of risks and controls associated with scheduled activities for inclusion in the GC Partner's site activity schedule (e.g. 6 Week Look Ahead).
- D. Institute a housekeeping and material storage program in accordance with GC Partner requirements.
- E. Conduct and document daily safety inspections of Supply Chain Partner work areas.
- F. Maintain a list of competent and qualified employees including associated certification/training documents for those employees.
- G. Participate and contribute to safety meetings and activities as directed by the GC Partner and/or

Owner.

- H. All Supply Chain Partner Staff, who directly manage, or oversee construction activities (Superintendents, Foremen, SCSMs, Safety Representatives, Commissioning Managers, QA/QC staff, and similar), will participate in a Supply Chain Partner Pre-Task Planning session a minimum of once per week.

3.2.6 Supply Chain Partner Safety Manager (SCSM)

- A. An SCSM is required to be on site whenever there are 20 or more Supply Chain Partner employees on site conducting work including night and weekend work. If less than 20 Supply Chain Partner employees are on site, a Supply Chain Partner Safety Representative, who is competent in the role of the SCSM may fulfill the SCSM function.
- B. An additional SCSM is required for each increase of 60 in Supply Chain Partner headcount. The maximum number of employees on site may be exceeded for up to 14 calendar days. SCSM to employee ratio is below.

Number of Employees	Number of CSM required
1 –19	0, See Section 3.2.7
20-80	1
81-140	2
141-200	3

C. SCSM Qualifications

1. Be approved by the GC Partner and Owner (as desired). Resume(s) submitted to Owner and GC Partner two weeks prior to the start of work. Owner may defer to GC Partner's decision.
2. Possess relevant certification and education which includes at least one of each in the following categories:
 - a. Education & Certification
 - Certified Safety Professional (CSP)
 - Associate Safety Professional (ASP)
 - Construction Health and Safety Technologist (CHST)
 - Occupational Health and Safety Technologist (OHST)
 - Graduate or Chartered Member of the Institute of Occupational Safety and Health (IOSH)

- Safety Trained Supervisor – Construction (STS-C)
 - Bachelor’s degree or higher in EHS discipline or EHS related field
- b. Training: Required within last three years
- NEBOSH Certificate/Diploma (EU and Asia)
 - OSHA 30-hour Construction Industry Outreach Training course (US)
- c. Experience
- A minimum of three years’ experience with similar project size and construction type
- d. Provisional exceptions to these requirements may be made by the GC Partner and Owner, but may be revoked at any time by the GC Partner and Owner.

D. SCSM Responsibilities

1. Serve as an ambassador for the Global Safety Team, promoting the principles and commitments of the Global Safety Charter.
2. Have no duties other than safety-related tasks and possess management authority.
3. Communicate effectively with employees.
4. Be current in cardiopulmonary resuscitation (CPR)/first aid training from a provider that is recognized by OSHA (US) or the local equivalent agency / authority / accreditation body.
5. Be capable of conducting a complete incident investigation.
6. Maintain the Supply Chain Partner's list of incidents and OSHA 300 log or equivalent log of incidents, injuries, and corrective actions.
7. Maintain current understanding of applicable safety and health regulations, standards, and best practices.
8. Review and approve Supply Chain Partner PTPs and JHAs as necessary.
9. Routinely verify special procedures are being executed correctly (confined space entry, LO/TO, excavations, hot work, etc.)
10. Ensure Supply Chain Partner employees complete safety orientation including additional orientation(s) (as required) administered by Supply Chain Partner.
11. Ensure all safety training certifications and records have been verified and documented.
12. Assist in coordinating regulatory agency inspections with GC Partner, other Supply Chain

Partners, and Owner.

13. Meet any additional requirements as defined in SSSPs, Supply Chain Partner internal standards, and Local Agency/Authority regulations.

14. Document observations and use software platforms as requested by the Owner/OAR (e.g. BIM360 or similar).

3.2.7 Supply Chain Partner Safety Representative (SCSR)

- A. A Supply Chain Partner Safety Representative (SCSR) is required when a Supply Chain Partner Safety Manager (SCSM) is not required, or not available.
- B. SCSR Qualifications
 - 1. Be approved by the GC Partner and Owner (as desired). Resume(s) submitted to GC Partner and Owner two weeks prior to the start of work. Owner may defer to GC Partner's decision.
 - 2. Be a Supply Chain Partner supervisor (superintendent, foreman, lead, project manager, etc.) with a minimum 3 years' experience supervising employees engaged in tasks and work scopes similar to the Supply Chain Partner's scope of work for the project.
 - 3. Completed an OSHA 30 Hour Construction Outreach Training Course certification, or equivalent, within previous three years.
- C. SCSR Responsibilities
 - 1. The SCSR is responsible for the tasks of the SCSM as defined in this manual.

3.3 Owner/Owner's Authorized Representative

- A. The Owner/Owner's Authorized Representative(s) (OAR) will provide oversight and support of the GC Partner and Supply Chain Partners, and promote a collaborative environment to safely deliver the project. The Owner/OAR's function is to not police, and audit, but rather to assess, partner, and collaborate to promote successful project safety performance.
- B. Owner's Responsibilities
 - 1. Collaborate and transparently communicate with the GC Partner and Supply Chain Partners for all safety issues and initiatives.
 - 2. Assist the GC Partner and Supply Chain Partners in the development, advancement, and promotion of safety initiatives and programs to better integrate safety into production.
 - 3. Facilitate communication of safety related information including incidents, lessons learned, corrective actions, best practices, initiatives, and programs.
 - 4. Regularly tour the job to observe safe work practices and opportunities for improvement. Document and share these observations with the GC Partner and Supply

Chain Partners.

5. Provide interpretations of this manual and other Facebook safety communications.
6. Deliver decisions for safety related questions and issues which are escalated to the OAR.

4. General Requirements and Safety Expectations

- A. This section provides general minimum safety expectations for GC Partners and Supply Chain Partners conducting work on FB ICM projects.
- B. Although this manual outlines minimum safety expectations, it is not intended to supersede or replace regulations, codes, standards, manufacturer recommendations, industry best practices, drawings, specifications, or other contract documents. This manual is intended to augment the previously listed documents and GC Partners and Supply Chain Partners are expected to bid their scope(s) of work based on the most stringent requirements governing the project and include those requirements in their SSSPs.
- C. This manual and revision process seek to capture the collaborative efforts of FB, GC Partners, and Supply Chain Partners in a holistic risk-management program which anticipates risks and reduces exposures.

4.1 Pre-Task Planning

- A. Effective Pre-Task planning (PTP) is a fundamental element of a successful risk management program. While GC Partners and Supply Chain Partners may use different terms in reference to PTPs, the intent remains the same. Prior to beginning work at the start of a day/shift, or when beginning a new task, employees participating in the task will complete a written plan which includes at minimum, the work to be performed, the hazards presented by that work, and the controls to mitigate those hazards. This plan will be completed collaboratively by all employees participating in the task.
- B. Pre-Task Planning Requirements
 1. All employees participating in the work will sign the PTP to acknowledge they have reviewed and understand the plan, hazards, and controls.
 2. A PTP may be reused for up to 7 consecutive days/shifts providing the plan(task), hazards, and controls remain the same. However, it must be reviewed and acknowledged (signed) daily.
 3. The PTP will be documented and recorded daily in a manner as directed by the GCPartner.
 4. The PTP will be posted in the work area for reference by the employees participating in the work. Additionally, any applicable permits (hot work, confined space, LOTO, etc.) will be posted with the PTP.

4.2 Substance Abuse Prevention Program

4.2.1 Purpose

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- A. In order to maintain a safe, healthy, and efficient work environment, the GC Partner and all Supply Chain Partners will implement a Substance Abuse Prevention Program which, at a minimum, includes the screening and testing requirements prescribed by this section.
- B. The employer's program will use a screening and testing (as applicable) protocol that meets, or exceeds applicable laws and local authority/agency requirements such as the United States Department of Transportation, Food and Drug Administration, and individual state statutes.
- C. The GC Partner will evaluate and approve screening methodologies and verify the screens are administered by qualified personnel. The GC Partner will select the testing clinic/site to be used for non-negative screen, post incident, and reasonable suspicion testing.

4.2.2 Requirements

- A. The GC Partner and Supply Chain Partners will implement and enforce a policy that prohibits the possession, distribution, promotion, manufacture, sale, use, and abuse of illegal and unauthorized drugs, drug paraphernalia, controlled substances, and alcoholic beverages by employees, agents, or any person otherwise under the control of the employer, including employees and agents of the GC Partner and Supply Chain Partners while on the premises.
- B. Employees are prohibited from consuming drugs or alcohol on the premises or reporting to the premises under the influence of drugs or alcohol. The premises includes the project site and any other locations directly involved in the project (enrolled in OCIP) such as prefabrication shops, warehouses, storage areas, etc.
- C. The Substance Abuse Prevention Program must apply to all personnel, including but not limited to regular, part-time, probationary, contract and casual employees of the GC Partner and Supply Chain Partners. The employer will take all legally permissible steps which are necessary and appropriate to enforce compliance with the program.
- D. As allowed by Local Agency/Authority laws and statutes, an industry-accepted and commercially available, drug and alcohol screening protocol will be used for assessments of workers prior to their authorization (issuance of badge) to work on site, provided all non-negative results are referred for formal testing. This screening will be used to obtain preliminary results only, and will not be used to obtain any results which may have legal impact (post incident or suspicion assessments). This drug and alcohol screening protocol is typically administered immediately before, during, or immediately after project safety orientation.
- E. The screening protocol administered will be at minimum, an FDA-approved (or Local Agency/Authority equivalent) five panel urine or saliva screen.
- F. Employees who do not pass the screen will be referred to further testing by a medical professional at a designated clinic or testing site. Any employees who pass the follow up test will be cleared for authorization (issued a badge) to enter the project.
- G. All post-incident and reasonable suspicion drug and alcohol tests will be administered by an authorized medical professional at an approved testing location. Employees may be post-incident drug and alcohol tested regardless if an injury or property damage occurred. The

Substance Abuse Prevention Program will include the requirements for a reasonable suspicion drug and alcohol test.

- H. Any employee under the Substance Abuse Prevention Program who refuses to submit to a drug and alcohol screen or test, or fails a drug or alcohol test will be removed from the project for a minimum of 12 months.
- I. All preliminary screening and testing results will be managed as medical records to protect the employee's confidentiality, pursuant to HIPPA.

4.3 Incidents

A. An incident is defined as any of the following:

- 1. Near miss – Unplanned event which could have caused personnel harm, property damage, or other unintended negative consequences.
- 2. Injuries – Classifications defined by 29 CFR 1904.7 (OSHA General Recording Criteria)
 - a. First Aid – An injury which does not require medical treatment
 - b. Recordable – An injury which requires medical treatment beyond first aid
 - c. Lost Time Incident – An injury which causes an employee to miss one or more days of work beyond the date of injury.
- 3. Property Damage – An incident which damages fixed property, equipment, vehicles, etc. without personnel injury.
- 4. Non-Industrial Injury or Health Issue – A completely personal injury/health issue sustained by an employee while on site which has no causation created by the work environment.
- 5. Major Water Event – An unplanned event involving water which damaged property, had the potential to damage property, or could have injured an employee or employees.
- 6. Major Electrical Event – An unplanned event involving electricity which damaged property, had the potential to damage property, or could have injured an employee or employees.
- 7. Media – An event which generates unanticipated media attention or triggered the crisis management/communication plan.
- 8. Environmental Impact - An unplanned event which causes unintended environmental harm such as an event requiring notification to a Local Agency/Authority, spill/release, water contamination, permit deviation, and noise/light pollution complaints.
- 9. Third Party Injury – An injury or damage to third party individuals or property (i.e. the general public) which are not associated with the project.

- B. The GC Partner and/or Supply Chain Partner will report all incidents to the Owner/OAR within two hours after the incident is discovered.

4.3.1 Incident Review Meetings (Lessons learned/Causal analysis)

- A. The purpose of an Incident Review Meeting is to identify causal factors and causes which had a role, or may have had a role, in creating the incident, and to determine corrective action(s) to prevent potential reoccurrences.
- B. Products from this meeting will include, at minimum, a detailed incident report which identifies the causes and corrective actions. The Owner may request additional lessons learned bulletins be drafted by the GC Partner and/or Supply Chain Partner for sharing to other projects.
- C. Within 2 working days of an incident, the GC Partner (CSM) will schedule an Incident Review Meeting. Additional meetings may be requested by the attendees to adequately review the incident.
- D. Attendees for this event will include the following:
 - 1. CSM
 - 2. SCSM or SCSR
 - 3. GC Partner and Supply Chain Partner Superintendent(s)
 - 4. GC Partner and/or Supply Chain Partner field supervision accountable for the task(s) causing the incident
 - 5. Employees directly involved in the incident
 - 6. Owner/OAR
 - 7. As Necessary: GC Partner and/or Supply Chain Partner executive leadership for systemic or severe events, or when requested by the GC Partner, higher tier Supply Chain Partner, or Owner.
 - 8. As Necessary: Involved third parties such as emergency responders and local agencies/authorities.

4.3.2 Incident Logs

- A. The Incident Log will detail all incidents including type of incident, date of incident, description of incident, status of incident, corrective actions, status of corrective actions, status of injured employee, party responsible, and other pertinent updates.
- B. The incident log will be updated and shared with the OAR weekly, or stored in a location where it is readily viewable (SharePoint, Procore, etc.)
- C. Incident details will be entered into Owner's specified software platform within 72 hours after the incident occurred or was identified. The incident details will be updated when the

classification or status of the incident changes.

4.4 Barricades

- A. GC Partners and Supply Chain Partners will use barricades around hazardous areas and activities (excavations, roof/floor penetrations, overhead work, high dust or noise, etc.). The GC Partner will designate what constitutes a suitable barricade.
- B. Hard barriers are preferred to the use of tape, and are required for any area or hazardous activity with a duration greater than one working day (steel erection, excavations, penetrations, etc.) when the hazardous activity cannot be eliminated at the end of the work shift.
 - 1. A hard barrier is a barricade which can't easily be crossed (whether deliberately or inadvertently) by unauthorized employees, and is secured to prevent removal or displacement (whether deliberate or inadvertent).
 - 2. Acceptable hard barricades include jersey barriers/k-rail, crowd control barriers, water buffalos, and other similar barriers which provide substantial physical and visual presence.
 - 3. The GC Partner and OAR will define what constitutes acceptable hard barriers.
- C. All barricades, regardless of type or style, will have signs which details the following:
 - 1. The present hazard associated with the area or activity
 - 2. The area, or activity, owner and company
 - 3. The owner's contact information
 - 4. Anticipated duration
- D. The GC Partner, with input from Supply Chain Partners, will maintain a list/map of areas where barricades are emplaced and the activities occurring in those areas. This list/map will be readily available to employees for reference.
- E. The GC Partner or Supply Chain Partner placing the barricades will verify the presence, condition, and effectiveness of the barricades at the start of work, or creation of the hazard, and daily thereafter.
- F. Barricades will be removed as soon as the hazard is eliminated. The GC Partner will review and approve any barricades that are left in place past the end of the shift because of the continued presence of a hazard (e.g. steel erection areas, excavations, open holes and penetrations, etc.).

4.5 Compressed Gas Cylinders

- A. All cylinders will be stored, transported, and used in an upright orientation with the valve(s) perpendicular to the ground. Refrigerant cylinders may be stored, transported, and use in other orientations as approved by the manufacturer (e.g. stored horizontal on approved pallets).

- B. Cylinders will be transported and moved in devices (cart, dollies, lifting caddy, etc.) which are designed and approved for that use.
- C. Fuel-gas and oxygen cylinders will be isolated by a distance of 20 feet (6 meters) or separated by a 5-foot-tall (1.5 meters) half-hour rated fire barrier. Fuel-gas/oxygen carts are required to meet the fire barrier requirement.
- D. Cylinder valves will be closed when not in active use, such as end of shift and breaks out of the work area. When cylinders are transported, stored, or removed from use, all fittings (gauges, regulators, hoses, etc.) will be removed from valves and protection caps will be installed.
- E. Cylinder storage areas must be approved by the GC Partner, appropriately equipped (stable hard surface, means of securement), and well ventilated. Flammable/combustible (acetylene, propane, etc.), and oxidizer (oxygen) cylinder storage areas must be equipped with at least one 20-pound ABC fire extinguisher.
- F. Cylinders and equipment (hoses, fittings, gauges, regulators, attachment, transport cart, etc.) will be inspected daily before use. Any damaged or leaking equipment will be immediately removed from service.

4.6 Concrete and Masonry Construction

- A. Impalement hazards (rebar, stakes) will be immediately guarded as they are created. Guards must be designed for the application. Barricading an area with impalement hazards is not an approved method of guarding.
- B. Prior to the start of pumping activities, overhead hazards will be identified and communicated during the PTP.
- C. Methods of minimizing employee skin contact with concrete will be identified on the PTP. Additionally, the availability of neutralizing solution will be confirmed prior to the start of concrete placing activities.
- D. Concrete truck travel paths will be integrated into daily/weekly logistics planning. Flaggers/spotters may be necessary to ensure proper travel of trucks, and to minimize interactions between trucks and other construction activities, especially pedestrians.
- E. Concrete washout stations will be provided whenever concrete is being placed.
- F. Respirable Crystalline Silica
 - 1. Wet methods or HEPA vacuum systems are the preferred control methods when respirable silica dust is generated (cutting, grinding, chipping, profiling, blasting).
 - 2. If the preferred methods are not feasible, employees conducting the work must be protected from respirable silica dust exposure by a Local Agency/Authority approved method. Controls will be placed to protect ancillary non-involved employees from exposure (barricades, work scheduling, containment).
 - 3. When the respirable silica generating work falls outside of the scope of Local

Agency/Authority approved methods, the employer must engage a credentialed party to conduct sampling which will be used to identify appropriate control measures.

4.7 Confined Space Entry

- A. The GC Partner will administer the confined space program for the site including the issuance and authorization of Confined Space Entry Permits. This program will define permit-required and non-permit required confined spaces, identify employees engaged in confined space entry tasks, define methods of air sampling, and define acceptable rescue protocols.
- B. The GC Partner, with input from Supply Chain Partners, will maintain a map and/or list of all confined spaces including the confined space's current condition in the field. This list will be made available to the Owner and Supply Chain Partners.
- C. In addition to general confined space training, participating employees will receive a site-specific training which details the site's confined space program.
- D. Rescue Requirements
 - 1. GC Partner/Supply Chain Partner Provided: Employees assigned to the rescue team, or expected to function in a rescue capacity, will be trained for each type of rescue they are expected to provide. The rescue team will have sufficient staffing to perform rescues, and means for prompt communication to summon the rescue team will be in place. Additionally, the rescue team will participate in quarterly rescue exercises (drills).
 - 2. Outside Agency Provided: When an outside agency is expected to perform confined space rescues, the GC Partner will have written verification the agency is willing and capable to provide confined space rescue services, and receive approval from the Owner. The GC Partner will establish communication procedures with the outside agency and accompany the outside agency on a quarterly job walk to review confined spaces.

4.8 Cranes and Rigging

- A. The term "crane" is inclusive of truck mounted cranes, rough terrain cranes, crawler cranes, "boom trucks", and any other device or implement which falls under the purview of a Local Agency/Authority requirements as a crane.
- B. A pre-lift walkthrough of the lifting area will be conducted. Attendees will include the Crane Operator, Rigger(s), GC Partner Work Supervisor, Supply Chain Partner Work Supervisor, Supply Chain Partner employees involved in the lift, and any other parties who may need to be engaged to safely execute the lift(s).
- C. Prior to placing a tower crane in service, an operator rescue plan must be in place for events where the operator is not able to exit the crane (health incident, illness).
- D. The GC Partner will maintain proof of operator certification in the competent person list. Crane operators will keep a copy of their valid and current certification at the location of the work. No uncertified operators are allowed to operate cranes.

- E. The crane manufacturer's recommendations will be followed at all times.
- F. Riggers will be identified, competent, and certified. The GC Partner will maintain certified rigger documentation on the competent persons list.
- G. Tag lines will be used unless they create greater hazard. All tag lines will be non-conductive, and free of knots or loops which may snag.
- H. Multiple lift rigging of loads is limited to three pieces using rigging designed for that use.
- I. A single qualified, and designated, signal person will communicate with the crane operator to coordinate crane movements and notify the operator of overhead hazards. Additional employees may be necessary to effectively coordinate movements, provided the designated signal person communicates with the operator.
- J. Any employee possesses the ability to immediately stop a lift for unsafe conditions. Procedures for communicating a "Stop" will be discussed in the Pre-Task Plan.
- K. Critical Lift Plans
 - 1. In addition to Local Agency/Authority requirements and industry standards regarding critical lift plans, the GC Partner or Owner may require a critical lift plan when it is deemed necessary. Additionally, anytime a lift will occur over or adjacent to operational facilities, the Owner will be notified 7 days in advance.
 - 2. The GC Partner will develop and administer the critical lift plan process. Additionally, the GC Partner will be the final authorizer of Critical Lift Plans.
- L. The lifting of personnel with cranes is only permitted in emergency situations. These potential situations must be anticipated, planned, and risk-assessed. All rigging and equipment used in personnel lifting must be approved for use.

4.9 Electrical

- A. Electrical connections greater than or equal to 50 volts, regardless of whether the connection is temporary or permanent, will be performed by a trained electrician.
- B. The GC Partner and Supply Chain Partners will implement the requirements of NFPA 70E (or Local Agency/Authority equivalent) as applicable, including, but not limited to, training, work practices, and PPE.
- C. Temporary Power and Cords
 - 1. All extension cords will be at minimum, 12 gauge, grounded cords (with ground pins in place).
 - 2. All single phase 120V extension cords in use on circuits which are 20 amps or less will be equipped with Ground Fault Circuit Interrupters (GFCI), unless they are plugged into a permanent power source (i.e. a receptacle installed in the permanent structure).

Documented testing of GFCI's will be done according to manufacturer's recommendations. Automatic resetting type GFCI's are not allowed.

3. GC Partners and Supply Chain Partners will institute an assured grounding program.
4. Temporary power panels, junction boxes, and enclosures will be covered when energized, or able to be energized, and all circuits within will be labeled.
5. Cords will be suspended above walking and working surfaces, or routed/protected to eliminate trip hazards.

4.10 Emergency Action Plan

- A. The GC Partner, in coordination with the Owner and Supply Chain Partners, is responsible for developing and maintaining a project wide EAP which considers possible emergency scenarios. Possible scenarios include, but are not limited to, fire, health/medical, intruder/suspicious persons, suspicious package/object, spills/environmental release, severe weather (including winter as applicable by climate), pandemic, civil unrest or disturbance, and any other scenarios identified by the GC Partner or Owner.
- B. The EAP will be maintained on site and placed in a conspicuous location.
- C. At least one drill or tabletop exercise will be completed per quarter. For each type of scenario which requires assembly/mustering (severe weather, fire), or a coordinated response of all site personnel (complete evacuation), a drill of that scenario will be completed annually.
- D. An Emergency Contact List which identifies the phone numbers and emails of key individuals and parties will be maintained as part of the EAP. This list will include key individuals from the GC Partner, Owner (ICM Team), and Supply Chain Partners (Project Managers, Superintendents, Executives). Additionally, the contact list will include contact information of local agency/authorities, emergency response organizations, and other applicable stakeholders.
- E. The EAP will identify members of a Construction Emergency Response Team (CERT), which are responsible for reviewing, maintaining, and executing the EAP based on the assigned roles.
- F. At least once per quarter, the EAP, and emergency contact list, will be reviewed and updated to reflect current site conditions. The updated EAP will be shared with the Owner.

4.11 Environmental Controls

- A. Spills or releases of hazardous materials, wastes, or substances will be reported to the GC Partner, Owner, and local agency/authorities (as applicable). This includes spills of cutting oil, fuel, solvents, antifreeze, hydraulic oil, other liquids, and solid waste. This also includes releases to the atmosphere of compressed gases such as oxygen, nitrogen, sulfur hexafluoride, refrigerant, acetylene, and propane.
- B. Cutting equipment which uses lubricating oil (or similar) will have secondary containment (drip pans, pools, sandboxes).
- C. Tasks which may create a spill of liquids or fluids will use a barrier to prevent liquid or fluid

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contamination of ground or work surface (paint mixing, equipment maintenance, etc.). Barrier material will be disposed according to Local Agency/Authority requirements.

- D. Secondary containment will be emplaced for all containers of hazardous materials when in storage (fuel, solvents, oil, etc.).
- E. The GC Partner will conduct a weekly documented inspection to verify the adherence to the requirements of this section, and Local Agency/Authority regulations.
- F. Spill cleanup and/or waste disposal are the responsibility of the generator. The GC Partner will verify spill cleanup and waste disposal is completed as required by Local Agency/Authority requirements. Copies of waste manifests will be provided to the GC Partner for tracking.

4.12 Equipment/Tools

- A. Pre-use inspections will be conducted on all equipment and tools. Damaged tools or tools in poor condition will be removed from service until replaced or repaired. Tools will be repaired to a "like new" condition.
- B. Manufacturer's requirements and instructions for use will be followed. Employers will provide training, which includes the manufacturer's requirements, to employees prior to authorizing the employees to use the equipment or tool.
- C. When working at heights above other work areas, drop hazards will be controlled. Acceptable methods of control include controlling entry to the drop area (barricades), tool tethers, spotters, or other methods approved by the GC Partner and OAR.
- D. When exhaust producing (internal combustion engines, fired heaters) equipment or tools are used in a structure, atmospheric monitoring and additional ventilation will be used.
- E. Powder Actuated Tools (PAT)
 - 1. Only trained and authorized employees (Operators) may operate PATs. The training and authorization will be provided by the employer for each type of PAT the employee will operate.
 - 2. Operators will possess an Operator's card on their person at all times when operating a PAT, which details the types of PATs they are authorized to operate. The GC Partner will maintain copies of the Operator cards as part of the competent person list.
 - 3. When PATs are in use, the following must be provided:
 - a. An operating and service manual
 - b. A power load chart
 - c. Repair, servicing, and cleaning tools
 - d. A lockable container, labeled "POWDER-ACTUATED TOOL" on the outside

- e. Eye and face protection for the operator, and other employees in the immediate vicinity
- f. Visible signage around a perimeter 50 feet from the point of use
- 4. When not in immediate use, PATs will be unloaded and locked in the container detailed above.
- 5. Different power loads will be clearly labeled and kept separately in a controlled (locked) area.
- 6. When a PAT is to be used, the Operator(s) will be identified on the PTP.
- F. Cordless (battery operated) power tools are preferred to corded power tools. Corded tools must be double insulated or grounded.

4.13 Excavations

- A. A designated competent person from the employer performing the excavation will supervise the excavation. This competent person will inspect the excavation for stability and change of conditions each day before the start of work, after any rain event, and any other time where excavation stability is questioned.
- B. Before employees may enter an excavation, the designated competent person will identify the protection methods (sloping, benching, shoring, shielding) to be employed based on the soil classification and stability.
- C. Egress will be provided for all excavations deeper than four feet (1.2 meters) which employees are accessing. Stepladders (whether leaned or opened) and shoring members are not acceptable method of egress.
- D. Spoil piles (excavated soil), materials, debris, and heavy equipment must be kept a minimum of 4 feet (1.2 meters) away from the edge of an excavation.
- E. The GC Partner will administer an excavation permitting and authorization program which identifies and reviews utilities, soil classification and stability, protection methods, access and egress, logistics, and other factors impacting the safety of an excavation.
- F. Utilities
 - 1. As part of 4.15.E, the GC Partner will administer a utility avoidance program. The GC Partner will coordinate with the Owner, Supply Chain Partners, and utility owners to identify present utilities prior to excavating.
 - 2. When excavating close (within 3 feet in any direction) to existing utilities (whether operational or not), avoidance, identification, and protection will be identified in the PTP. Acceptable methods include potholing, hand digging, spotters, and other methods approved by the GC Partner which will not damage the existing utility.
 - 3. Utilities in the area of the excavation will be identified by accurate methods (utility

locator, GPS, survey) and marked on the ground with paint or flags. Prior to starting an excavation, a map detailing the locations of utilities will be available to the excavating employees.

4. The GC Partner will maintain an evergreen map or drawing showing the current status of all utility installations on site (including temporary and previously installed).
- G. All excavations require delineation to alert employees of the presence. Regardless of depth, hard barriers are required to be emplaced around all excavations open at the end of the work shift. For excavations which create a fall hazard (>6 feet depth), the hard barricades must also meet the requirements for fall protection.
- H. Horizontal Boring and Pipe Jacking
1. Horizontal Boring and Pipe Jacking operations will be planned and modeled for the anticipated depth and path, and approved by the GC Partner prior to the operation commencing.
 2. Boring and/or Pipe Jacking equipment operator(s) will be trained in the equipment they are to operate.
 3. When unexpected resistance is encountered, the boring or jacking operation will cease and the GC Partner notified before investigating the reason for the resistance.
 4. Employees involved in the operation will remain clear of rotating equipment and will remove or contain all jewelry, clothing, or hair which may be caught in rotating equipment.

4.14 Executive Safety Committee

- A. The GC Partner will organize an Executive Safety Committee to provide oversight and influence of the project's safety performance.
- B. The Executive Safety Committee will be composed of executive level leaders (Director, Vice President, President, Principal, or similar) of all Supply Chain Partners and the GC Partner.
- C. At minimum, the committee will be convened quarterly to discuss project safety performance, culture, initiatives, and incidents.
- D. The Executive Safety Committee may be convened more frequently at the request of the members (Owner, GC Partner, Supply Chain Partners) as necessary to review significant events or systemic issues.

4.15 Fall Protection and Prevention

- A. The GC Partner and Supply Chain Partners will implement a Fall Protection and Prevention Program which meets, or exceeds, regulatory requirements and industry standards, such as ANSI/ASSE Z359 in the United States. Fall protection or prevention is required for all employees, regardless of trade, whenever they are exposed to fall hazards of six feet or greater.

- B. All employees who are subject to the Fall Protection and Prevention Program will be trained on the elements of the program, including hazard identification and correction, selection and use of protection devices (PFAS), maintenance of fall protection/prevention equipment, and the expectations of the program. The training program will include an assessment of competence and initiators for retraining (noncompliance, change in conditions, training deficiencies).
- C. Employees observed to be in noncompliance will be suspended from performing work under the Fall Protection and Prevention Program until they are retrained and assessed for competence.
- D. Approved methods of Fall Protection and Prevention include the following:
 - 1. Guardrails with adequate top rail, mid rail, and toe board
 - 2. Covers of penetrations/openings which are designed for the potential loads
 - 3. Personal Fall Arrest Systems or Personal Fall Restraint System
 - 4. Positioning device systems
 - 5. Safety nets
 - 6. Scaffold Platforms
- E. Controlled Access Zones, Safety Monitor Systems, and Controlled Decking Zones, or other methods where employees are not protected by one of the methods listed in 4.17.D are not allowed.
- F. Hard barriers will be used whenever access to fall hazards, or leading edges, is necessary. Red tape, or similar non-hard barriers, is not allowed for any fall protection or prevention application.
- G. When a PFAS is used for fall protection the following will apply:
 - 1. Competent person(s) will evaluate and select PFAS components based on the fall hazard (fall distance, leading edges, work area, etc.)
 - 2. The selected components and identified anchor point(s) will be documented on the PTP.
 - 3. A documented rescue plan will be available and reviewed during the PTP.
 - 4. Six-foot shock absorbing lanyards are the least preferred type of connection device. When a six-foot shock absorbing lanyard is to be used, the CSM, or competent designee, will be engaged to evaluate and approve the PFAS application, rescue plan, and PTP.
- H. The GC Partner will retain copies of fall protection rescue plans as stated in 4.17.G.1. The GC Partner and Supply Chain Partners will routinely review and update their fall protection rescue plans.
- I. Fall protection components and systems will be installed and used in accordance with the

manufacturer's specifications and instructions. Engineered fall protection systems will be accompanied by stamped drawings and specifications. All drawings, specifications, instructions, and other documentation will be retained and readily available for reference as necessary.

4.16 Fire Protection, Fire Prevention, and Hot Work

A. Hot Work Permitting Program

1. When feasible, alternative methods to hot work will be used.
2. The GC Partner will implement a Hot Work Permitting Program for the project and track the locations of hot work activities.
3. Hot work is defined as any activity which creates heat, flames, arcs, sparks, or other activities which generate potential ignition sources. Examples include, but are not limited to, grinding, cutting, welding, brazing, soldering, heating, and hot air welding.
4. The GC Partner will issue and authorize, or reauthorize, all hot work permits daily. If an activity has a duration longer than one day, the same permit may be reauthorized for six additional days, provided the employees conducting the work, and the conditions of the work area have not changed.
5. Prior to authorizing, or reauthorizing, the GC Partner will evaluate the type of hot work, work area preparations, flammable/combustible presence and protection, atmospheric conditions, and firefighting equipment.
6. A dedicated fire watch will be required for each authorized permit. The fire watch will remain in place for 45 minutes after the hot work activity has stopped. If the hot work task is creating ignition potential (sparks) on multiple floors/levels, a fire watch will be placed on each floor/level.
7. Each fire watch will be equipped with a 10-pound ABC, or Local Agency/Authority equivalent, fire extinguisher and will be trained in its use.
8. All hot work permits will be posted adjacent to the location of the hot work (with the PTP).

B. Project Fire Protection Program

1. The GC Partner will develop a fire-protection program for all phases of the project which incorporates the most stringent of the following requirements:
 - a. Local Agency/Authority (OSHA, HSA) regulations and standards
 - b. Authority Having Jurisdiction (AHJ) requirements. The AHJ is typically a local or state fire marshal, code official, or building official.
 - c. Industry standards (ANSI, NFPA, or similar)
2. The Project Fire Protection Program will include plans for coordinating activities and

processes with the Owner as the project moves toward final completion. The Program will include communication procedures to notify the Owner of the activation or de-activation of fire protection systems (detection, notification, suppression) which may impact Owner controlled areas or equipment.

C. Portable Fire Extinguishers

1. Portable fire extinguishers must be fully charged, inspected monthly, and serviced annually.
2. Clean agent fire extinguishers (Halotron, or similar), are required in areas where Owner Furnished Equipment (OFE) has been installed, or is in storage.
3. The clear and unobstructed travel distance from any point of the protected area to the nearest fire extinguisher will not exceed 75 feet.

D. Flammable and Combustible Liquids

1. Flammable and combustible liquids will be stored in approved (listed) containers labeled with the contents.
2. Approved (listed) metal safety cans will be used for all portable liquid fuel storage and dispensing.
3. Storage in excess of 25 gallons of flammable liquids or 60 gallons of combustible liquids will be within cabinets constructed to the requirements of NFPA 30.
4. Outside storage areas will meet Local Agency/Authority requirements, be located a minimum of 75 feet from any buildings, and equipped with fire extinguishers (Minimum: 1 20 pound ABC). The fire extinguisher(s) will be located between 25 feet and 75 feet from the storage area in an accessible location.

E. Roof Work

1. Storage of flammable materials (liquids and gasses) on the roof will be limited to what is needed for the work shift in progress and the following shift. Flammable liquid and gas containers will be separated as much as feasible (e.g. distancing LPG cylinders away from each other).
2. Storage of combustible materials on the roof will be limited to a one-week supply.
3. At least one 20-pound ABC fire extinguisher will be available in proximity to each flammable or combustible roof storage area.

4.17 First Aid

- A. At least one individual from the GC Partner and each Supply Chain Partner will be certified in First Aid and CPR. An additional First Aid and CPR employee is required for every additional 50 employees.

- B. Training records for employees certified in First Aid and CPR will be kept by the GC Partner as part of the competent persons list.
- C. Each employer (GC Partner and Supply Chain Partners) will provide at least one weatherproof first aid kit sized based on their workforce headcount. A documented inspection will be performed on each kit monthly.
- D. If project level first aid services are provided by the GC Partner, 4.19.C is not required, except for offsite work locations (prefabrication shops, warehouses).
- E. For substances in which the SDS requires specific first aid treatment(s) (eye wash, concrete burn neutralizer solution, etc.), the GC Partner and/or Supply Chain Partner will verify the availability and adequacy of the treatment(s) prior to the use of the substance.

4.18 Forklifts (Industrial Trucks)

- A. Forklift operators will be trained and certified for each type of forklift or material handling equipment they operate. This training and certification will be within the previous three years. The GC Partner will maintain proof of current certification as part of the competent persons list.
- B. Lifts will only be made using the forks (or other Original Equipment Manufacturer lifting device), or attachment(s) approved by the manufacturer. "Open" or "free rigging" is prohibited.
- C. The identification plate and load chart (if equipped) will be intact, legible, and affixed in the original manufacture's intended location.
- D. Seat belts, when equipped, or can be equipped, will be worn by the operator when operating the forklift.
- E. Prior to each shift, the forklift or industrial truck is to be used, the operator(s) will conduct a documented inspection. The inspection document will remain with the forklift/industrial truck while it is in use.
- F. The operator(s) of the forklift/industrial truck and the scope of their work (material to be lifted, area of operation, method of lifting, etc.) will be identified on the PTP.
- G. Forklifts/industrial trucks will not be used to lift employees.
- H. Employees will be prevented, and prohibited, from standing, passing, or working under an elevated forklift/industrial truck by using barricades, spotters, or other GC Partner-approved methods.
- I. No elevated loads will be left unattended (operator not in cab). Forks will be placed in down position and parking brake engaged when forklift/industrial truck is not in use.
- J. Spotters will be used when an operator does not have full view of the operating/lifting area, when operating in congested areas (e.g. inside a building), and when operating around other employees.
- K. Attachments, which are not already approved by the forklift/industrial truck manufacturer, will

be reviewed and approved by the GC Partner. Any engineering documentation will be retained for reference.

4.19 Hazard Communication

- A. The GC Partner and Supply Chain Partners will implement a written Hazard Communication (Haz-Com) Program which meets, or exceeds, the Globally Harmonized System (GHS).
- B. The GC Partner will maintain a project-wide chemical inventory list. This list will include an SDS for each chemical, the location of use for each chemical, and the approximate quantity of each chemical.
- C. Employees will have access to the Safety Data Sheets for the chemicals they are exposed to.
- D. Each employer will provide appropriate PPE, based on the SDS, for the chemical hazards their employees are exposed to. When these chemicals are to be used, the chemical hazard(s) and the necessary PPE will be documented on the PTP.
- E. All containers used on site will be appropriate for the use and labeled with the contents.

4.20 Housekeeping

- A. The GC Partner will implement a housekeeping program which promotes robust cleanliness and organization standards.
- B. Entrance and exit paths will always be maintained unobstructed to allow employees unimpeded access to, and exit from, their work areas.
- C. All construction materials will be stored off the ground on pallets, stillage, dunnage, carts, dollies, or similar; or in designated storage areas to prevent trip hazards and material damage. Materials will be stored to promote safe material handling techniques (i.e. minimize personnel lifting).
- D. Appropriate waste receptacles for each waste stream (general trash, scrap metal, copper, etc.) will be provided adjacent to each workstation or in the immediate work area. Debris/waste will not be left on the ground, and will be placed in the appropriate receptacle as it is created. Receptacles will be emptied or replaced once full.
- E. Puncture and laceration hazards (nails, staples, sharp edges, etc.) will be immediately controlled as they are created.
- F. Oily and paint-soaked rags will be deposited in a labeled, and lidded, metal container. The rags, or container, will be removed out of the active construction area at the end of the workshift.
- G. Trip hazards, due to seams, elevation changes, or other conditions, will be mitigated on walking/working surfaces.

4.21 Ladders

- A. The GC Partner will implement a "Ladders Last" program which promotes the use of alternative,

safer methods (MEWPs, scaffolds, etc.), of accessing work at height, through a ladder permitting/authorization process.

- B. The ladder permitting/authorization process will include the following elements:
1. A task-specific PTP which is reviewed, and subsequently approved, by the GC Partner, or designated supervisory-level employee. This PTP will identify the type of ladder, location of use, ladder placement and removal process, the ladder user(s), and other controls necessary to complete the work safely (spotters).
 2. A documented ladder inspection kept with the PTP in the area of ladder use.
 3. Broken or defective ladders will be removed from service, identified (tagged) to prevent use, and removed from the project as quickly as feasible.
- C. Ladders will be non-conductive and of adequate capacity (minimum Type I) to support the employee, tools, and materials.
- D. Employees who are expected to use ladders will be trained in ladder use expectations, techniques, and practices for each type of ladder employees are expected to use. The GC Partner will maintain record of the trained employees as part of the competent persons list. Employees will be retrained when incompetent behaviors are identified.
- E. Only platform/podium style stepladders will be used in applications which require a stepladder.
- F. Ladders will not be used for primary access to elevated working areas. Ladders are acceptable to use for secondary access/egress from elevated working areas in emergency situations provided the ladder is secured from displacement, is identified as emergency use only (e.g. "Emergency Use Only" sign), and is installed to allow for easy access (e.g. extended side rails on extension ladder).
- G. Employees will not carry supplies, materials, tools, or equipment up, or down ladders which prevents them from maintaining three points of contact at all times.

4.22 Lockout/Tagout and Hazardous Energy Control

- A. The GC Partner, in coordination with applicable Supply Chain Partners, will develop and administer a comprehensive "Lockout/Tagout and Hazardous Energy Control" (Lockout/Tagout, LO/TO) program which encompasses all forms of hazardous energy (Electrical, Mechanical, Pressure, Chemical, etc.) This program will include the use of a GC Partner supervisory individual (i.e. Energy Marshal) who will oversee the comprehensive program in accordance with "WOW002 – Energy Marshal".
- B. All employees whose work is affected by the Lockout/Tagout and Hazardous Energy Control program, or employees whose work requires their participation in the Lockout/Tagout and Hazardous Energy Control program, will be provided Lockout/Tagout and Hazardous Energy Control program training, as applicable to their level of involvement. Employees are affected by the Lockout/Tagout and Hazardous Energy Control program when they work within, or travel through, spaces which contain, or have the potential to contain, hazardous energy.

- C. Employees trained in the Lockout/Tagout and Hazardous Energy Control program will be identified by a hardhat sticker (or similar). The GC Partner will maintain the list of trained employees as part of the competent persons list.
- D. Permits will be issued and authorized for all tasks which require Lockout/Tagout and Hazardous Energy Control per the requirements of the GC Partner's Lockout/Tagout and Hazardous Energy Control Program. The permit will be posted with the PTP in the work area.
- E. The GC Partner will coordinate all tasks and activities which require multi-employer Lockout/Tagout or Hazardous Energy Control.
- F. Energy Isolation Devices
 - 1. Locks, with tags, will be used for all hazardous energy isolation procedures. Employees will retain exclusive control of the key to their personnel lock(s).
 - 2. Tags will be identified with the company information, employee's information (name, phone number), date of installation, expected date of removal, and other project specific lock and tag tracking information (i.e. lockbox identifier, lock number, etc.)
 - 3. Tags, without an accompanying lock, will not be used as an Energy Isolation Device, unless it is infeasible to place a lock and tag, and the CSM and OAR approve the use of a tag as an Energy Isolation Device.
- G. Lockout/Tagout and Hazardous Energy Control procedures will include a documented process for de-energizing, controlling, or eliminating hazardous energy (e.g. opening breakers, closing valves), and a documented process for confirming the absence of hazardous energy prior to the start of work (e.g. Live-Dead-Live, bleeding off pressure).
- H. When it is necessary for a task to be performed in the presence of hazardous energy (testing, troubleshooting, commissioning, repair, etc.), the PTP will identify the additional controls necessary to mitigate the hazardous energy exposure. These controls will include the use of additional signs and tags to communicate the presence of hazardous energy
- I. The GC Partner, with input from Supply Chain Partners, will maintain a project-wide list of all tasks/activities being performed under a Lockout/Tagout and Hazardous Energy Control Permit. This list will be continuously updated (minimum of daily) and will be available to employees for reference during PTPs and daily job briefings.
- J. Electrical rooms which are energized (whether partially or completely) will have access limited to only personnel who are authorized by the GC Partner. This can be in the form of a badge reader, door monitor or security guard, lock and key, or any other GC Partner approved method which prevents unauthorized entry into the rooms.

4.23 Logistics

- A. The GC Partner's logistics plan will include the following elements (as applicable):

- 1. Designated pathways for vehicles, pedestrians, deliveries, other construction traffic, and

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- non-construction traffic (public or Facebook operational traffic).
 2. Improved (graveled, paved, or equivalent) parking lots/areas for POVs.
 3. Identified parking lot and construction area entrances.
 4. Designated security checkpoints (turnstiles, guard stations, etc.), perimeter fencing, temporary/permanent lighting, and other necessary security controls.
 5. Identified storage and laydown areas for equipment and material storage.
 6. Emergency response considerations such as muster points, emergency vehicle access points, and severe weather shelters.
 7. Employee break and wellbeing areas such as lunch/break areas, office trailers/areas, medical/first aid stations, restroom areas, and cooling/warm-up stations.
 8. Waste disposal, accumulation, and storage areas such as dumpster staging and concrete washout stations.
 9. Informational signage including emergency contact information, delivery truck directions, gate/access point labeling, requirements to enter the project, etc.
 10. Other necessary elements based on Local Agency/Authority requirements, Facebook operations, or other site conditions.
- B. The GC Partner will conduct routine (weekly minimum) logistics plan reviews and distribute any updated logistics plan(s) to the Owner, Supply Chain Partners, and other stakeholders.
- C. The GC Partner will inform the owner a minimum of seven days in advance of any logistics changes which may impact Owner's operations.
- D. Pedestrian Walkways
1. Pedestrian walkways will be paved, graveled, or similar, and will be maintained to be free of trip hazards, holes, depressions, and similar.
 2. Walkways will be installed between any areas employees are expected to routinely access on foot. Examples include parking lots, break areas, warming/cooling stations, restrooms, and building entrances.
 3. Where a walkway is immediately adjacent to a road/equipment pathway, continuous hard barriers will be installed between the walkway and the road/pathway.
 4. The GC Partner will coordinate instances when walkways are closed off/shut down, and distribute updated logistics as specified in 4.23.B.
 5. Where walkways intersect equipment/vehicle traffic, additional controls will be emplaced to manage the pedestrian and equipment/vehicle interface. Acceptable controls include crossing guards, designated cross walks, stop lights, or other methods

which provide similar levels of protection.

4.24 Mobile Elevating Work Platforms (MEWPs)

- A. Mobile Elevating Work Platforms, otherwise known as aerial lifts, or aerial work platforms (AWP), are the preferred method for conducting work at height. These requirements apply to all MEWPs, regardless of type or style, unless otherwise noted.
- B. Workers will be trained for each type or style of MEWP (i.e. scissor lift, mast lift, boom lift, etc.) they are expected to operate in accordance with Local Agency/Authority requirements and industry standards (e.g. ANSI).
- C. When employees may potentially be exposed to dropped object hazards underneath a MEWP, the drop hazard will be controlled. Acceptable methods of control include controlling entry to the drop area (barricades), tool tethers, spotters, or other methods approved by the GC Partner and OAR.
- D. Hard barriers will be emplaced to block pedestrian movement through any doorway or pathway in close proximity to an aerial lift in use. This is intended to prevent pedestrians from inadvertently walking into or around a lift which is moving, elevating, or descending.
- E. The GC Partner and Supply Chain Partner's will identify inclement weather parameters which requires the use of MEWPs to cease including rain, lightning, and wind.
- F. Spotters are required when lifts are moved indoors, through doorways, or through other congested areas such as roadways, parking areas, pedestrian walkways, or similar. Spotters are not required when moving a lift within an established, delineated work area provided the risks to employees and property within that established work area are controlled.
- G. The GC Partner or Supply Chain Partner will define MEWP rescue procedures prior to the use of the lift, and the rescue procedures will be discussed during the PTP.
- H. A documented inspection, as per Local Agency/Authority and manufacturer requirements, will occur before the use of a MEWP, and be repeated for subsequent work shifts before the MEWP is used. Inspection documentation will be kept with the lift while in use.
- I. A personal fall protection system (full body harness and lanyard, SRL, restraint, etc.) is required for ANSI Group B MEWPs (boom style) lifts. The GC Partner or Supply Chain Partner may elect to require the use of personal fall protection systems in ANSI Group A (scissor, mast, elevating style) lifts.

4.25 Motor Vehicles

- A. All motor vehicles entering, or used exclusively, on the project site must be labeled with a company name or identifier, and be preapproved (insurance verification), by the GC Partner before entrance/use on the project site.
- B. Personally Owned Vehicles (POVs) are prohibited from accessing the project site and will be segregated from construction areas in designated, non-construction, parking areas and

roadways.

- C. Employees who operate, or are expected to operate, motor vehicles on the project site will have a valid driver's license.
- D. The speed limit in active construction areas will be limited to 10 mph. For roads away from active construction areas which are limited to motor vehicle traffic only (i.e. no forklifts, equipment, or similar), the GC Partner and Owner may approve a higher speed limit. The speed limit will be posted throughout the project site and project roads.
- E. The GC Partner will determine and communicate traffic norms and expectations (e.g. right of way, intersection controls, direction of travel). This includes the placement and maintenance of signage, lines, cones, delineators, and other items necessary to control traffic.
- F. Parking Areas
 - 1. The GC Partner will designate and separate POV parking from project site vehicle parking lots/areas.
 - 2. Parking lots/areas will be controlled (signs, lines, attendants, etc.) to promote organized, coordinated vehicle parking.
- G. All vehicles will be shut off when unoccupied.
- H. All vehicles on the project site will be equipped with functional seatbelts, which will be worn by all occupants.

4.26 Orientation

- A. The GC Partner will administer an orientation for all employees and visitors. The orientation will be provided in a format and language which is understandable by the employees and visitors.
- B. The GC Partner will maintain records and documentation of the employees and visitors who have completed the orientation.
- C. The orientation will include the following elements:
 - 1. Project type and details
 - 2. Owner, GC Partner, and Supply Chain Partner safety commitment
 - 3. Job site safety rules, and expectations
 - 4. Map of pertinent logistics such as break areas, restrooms, entrances/exits, bus stops, smoking areas, etc.
 - 5. Emergency procedures, evacuation routes, and assembly points
 - 6. Medical care procedures and locations/facilities

7. Permitting expectations (ladder, hot work, confined space, excavation, etc.)
 8. Reporting procedures for incidents, near misses, and safety concerns
 9. PPE and dress code expectations
 10. Other project site rules, expectations, and norms
- D. Supply Chain Partners and/or employees will submit their proof of training/competency to the GC Partner prior to performing activities which require training/competency. The GC Partner will document employees with additional training/competency in the competent persons list.
 - E. The GC Partner will designate a method (arm band, vest, hard hat sticker, or similar) for identifying employees which have been on the site less than 60 days.
 - F. Employees will not be authorized to work onsite (i.e. issued a badge) until they have completed orientation, and passed a drug test/screen in accordance with the requirements of this manual and Local Agency/Authority statutes and regulations.

4.27 Personal Protective Equipment (PPE)

- A. All PPE will meet, or exceed, industry standards (US: ANSI, EU: British Standards), and Local Agency/Authority requirements.
- B. The minimum required PPE, for all employees on the project site, are the following:
 1. Hard Hat: Bump caps, rock-climbing helmets, and other uncertified/unlisted hard hats are prohibited.
 2. Eye Protection: Safety glasses are required as minimum PPE for all employees on the project site. Prescription glasses with added side shields will meet the same standards as conventional safety glasses. Additional eye protection (face shield with glasses, goggles, or similar) will be worn when tasks generate flying particles or objects which could create a hazard to the eyes or face.
 3. High Visibility Garment with Reflective Striping: Acceptable garments include vests, shirts, jackets, and coats. Orange, yellow, or other bright shirts are not allowed as the high visibility garment unless they are equipped with reflective striping.
 4. Sturdy Boots: Hard soled boots which are at least ankle high are required. The GC Partner or Supply Chain Partner may require steel toe, metatarsal, or other specialty boots.
 5. Gloves: Task-specific gloves will be identified by the GC Partner or Supply Chain Partners and documented on the PTP.
 6. Additional PPE may be required based on Local Agency/Authority requirements; GC Partner's, or Supply Chain Partner's requirements; or a task-specific hazard analysis.
- C. The GC Partner and Supply Chain Partners will train their employees in the proper use, care,

sanitation, and limitations of the PPE the employees are expected to use.

- D. The GC Partner and Supply Chain Partners will supply the PPE their employees are expected to use.
- E. The GC Partner will display signage or mannequins to exhibit proper PPE use for different tasks. The signage or mannequins will be in areas which employees commonly travel (walkways, break areas, parking lots, etc.)

4.28 Powered Equipment - Earthmoving and Material Handling Equipment

- A. This section is inclusive of non-stationary, engine or battery, powered equipment. Equipment covered by this section includes earth moving machinery, material handling equipment which isn't a forklift or a crane, and other miscellaneous equipment which is not covered by other sections of this manual.
- B. Equipment operators will be trained for each type of equipment they operate.
- C. Prior to each shift the equipment is to be used, the operator(s) will conduct a documented inspection. The inspection document will remain with the equipment while in use.
- D. Safety features such as lights (headlights, taillights, turn signals), horns, alarms, seat belts/harness, windshields/screens, windows, and other functions/features will be kept operational and inspected as part of the pre-use inspection. Equipment which does not have all safety features functional will be removed from service until repaired.
- E. Equipment must be equipped with a functioning warning device in control of the operator, or the operator must be able to be communicate clearly by voice with nearby employees.
- F. All equipment which is equipped with a seat for the operator, will be equipped with a seatbelt, which will be worn by the operator.
- G. No employee or personnel, other than the Operator, is allowed to ride on the equipment, unless it is equipped with additional seats/seat belts.
- H. Prior to starting the equipment, or prior to resuming equipment operation, the operator will conduct a 360-degree survey to verify no personnel or property are at risk from the equipment operation.
- I. Unattended equipment (not in current operation), will be secured from unintended movement (wheels chocked, parking brake(s) set) with residual energy removed (blades, dump boxes, etc. in their lowest position), and the motor turned off.
- J. The GC Partner may approve for certain equipment to be left running when unattended if the following conditions are met:
 - 1. Cycling the equipment on and off may cause undue wear on the equipment, or cold temperatures cause the potential for equipment malfunction if turned off.
 - 2. The equipment can be secured from unintended movement with residual energy

removed to the same extent as if the engine is off.

- K. When an equipment related activity (inspection, servicing, maintenance, etc.) creates the potential for a release of hazardous energy (stored energy, unintended startup, etc.), Lockout/Tagout (including permit) will be emplaced by authorized employees to prevent the release of the energy. The permit will be kept with the PTP in the work area.

4.29 Project Safety Committee

- A. The GC Partner will organize a Project Safety Committee, whose purpose is to discuss safety initiatives, trends, incident and near miss learnings, safety concerns, work coordination, and other pertinent project safety information.
- B. Attendees will include the CSM(s), SCSMs, SSRs, GC Partner production supervision (superintendents), Supply Chain Partner production supervision, GC Partner and Supply Chain Partner project leadership, OAR, and other Owner staff.
- C. This Committee will meet at least bi-weekly (2x per month), although participants may request more frequent meetings.
- D. Documented (agenda, notes, attendance, actions) meeting minutes will be distributed to the Committee participants, and retained in a location which is readily accessible by project stakeholders (i.e. Procore)

4.30 Sanitation

- A. The GC Partner will provide, or ensure all employees are provided, clean and sanitary toilets, potable drinking water, hand-wash facilities, and personal trash receptacles as required by Local Agency/Authority requirements.
- B. Sanitation facilities (toilets, hand-wash facilities, trash receptacles, drinking water containers and coolers, etc.) will be kept clean, maintained, and restocked as necessary.
- C. At least one toilet will be provided for every 20 employees. Climate controlled, flushable toilets supplementing chemical toilets is the preferred method for meeting the one toilet per 20 employees ratio. Regardless of type, toilets will allow for privacy, and be supplied with adequate toilet paper.
- D. Females will be provided separate, equivalent toilet facilities which are access controlled (lock and key, attendant, etc.), and as accessible as male toilet facilities.

4.31 Scaffolds

- A. All scaffold erection, movement, dismantling, or altering will be done under the supervision and direction of a competent person. All employees erecting, dismantling, altering, moving, or using scaffolds, will be trained to recognize the hazards of scaffolds.
- B. The GC Partner will approve competent persons to supervise and direct scaffold activity, and retain copies of scaffold competent persons qualifications as part of the competent personlist.

- C. All scaffold erection, dismantling, altering, or movement activities will have a task specific PTP completed which is reviewed by the GC Partner CSM or designee.
- D. For any work involving (erecting, dismantling, altering, moving, or using) scaffolds, a rescue plan will be documented on the PTP, and the rescue equipment will be readily available.
- E. Employees erecting, dismantling, altering, or moving scaffolds will be equipped with a PFAS or other form of fall protection when working above six feet on an incomplete scaffold.
- F. Erected Scaffold Requirements
 - 1. Complete handrails, midrails, and toeboards for all scaffolds over six feet. If no guardrail, or an incomplete guardrail is provided, employees working on the scaffold will be equipped with a PFAS or other form of fall protection.
 - 2. Internal ladders or stair towers are the only approved means of accessing different levels of scaffolds. External ladders are not permitted.
 - 3. Scaffolds will be erected on a level and firm base. When a scaffold is erected on dirt, or similar unstable material, the scaffold baseplates will be secured to a stable sub-base pad.
 - 4. Scaffold planks will be laid tightly to minimize gaps, and secured to prevent movement.
 - 5. The wheels of rolling scaffolds will be secured from movement (brake, chocks, or similar) when not being actively moved. Employees are not allowed on any unsecured rolling scaffold.
- G. Inspection and Tagging
 - 1. A competent person will inspect each scaffold daily, before every shift, after any event which may have affected the scaffold's integrity, or anytime the scaffold is altered or moved. The competent person will document the inspection on the scaffold tag.
 - 2. A tagging system will be identify the status of the scaffold and if it is safe to use.
 - 3. A green tag will be applied when a scaffold is complete, and no additional controls are required to use it safely.
 - 4. A red tag will be used if the scaffold is incomplete, or unsafe to use.
 - 5. A yellow, or other designated color, may be used if the scaffold is safe to use with additional controls (fall protection).

4.32 Steel Erection

- A. The Steel Erection Supply Chain Partner(s) will provide a comprehensive steel erection plan to the GC Partner for approval prior to the start of erection activities. The plan will include erection sequence, lifting equipment (crane) to be used, logistics for steel deliveries, staging areas, lifting

equipment access, and other elements as requested by the GC Partner or Owner.

B. Connection Operations

1. Steel members will not be released from the hoisting line until the members are secured by two, wrench-tightened, bolts on each end of the steel member.
2. When possible, MEWPs will be used to access steel work during connection operations. The GC Partner and Supply Chain Partners will coordinate and sequence all work to accommodate this requirement as much as feasible.
3. If it is determined it is infeasible to use a MEWP to access the steel connection point(s), the GC Partner and Steel Erection Supply Chain Partner(s) will coordinate and document the tasks, and areas, where connecting employees are allowed to “walk steel” to conduct connection operations. The CSM will review and be the final approver of this plan.
4. The tasks and areas where “walking steel” is determined to be necessary will be documented on the PTP, and will be checked for compliance by GC Partner and Supply Chain Partner supervisors.
5. Whenever employees are approved to “walk steel”, they will only work off structural members which are secured to at least two points, by two bolts, not including the hoist line.

C. Containers for carrying or storing rivets, bolts, drift pins, tools, and other supplies will be designed for that use, and approved by the GC Partner or Supply Chain Partner.

D. Dropped object prevention controls, as defined in the Mobile Elevating Work Platforms (MEWPs) section of this manual, will be used whenever there is potential for dropped objects, equipment, tools, or materials.

E. Equipment, tools, and materials will be removed from the steel (placed on the ground), or secured to prevent displacement/falling, when employees are not present, or are not actively working in the area.

F. Impact wrenches will be equipped with a locking device to prevent the unintended release of sockets.

G. Employees may not climb columns, or any other structural members to access different working levels.

H. Decking Release

1. Once decking operations are completed in an area, the GC Partner and Steel Erection Supply Chain Partner(s) will conduct an inspection of the area and complete a formal, documented deck release. The deck release will be shared with other Supply Chain Partners and the Owner.

2. No other Supply Chain Partners are allowed to access the structural steel or decking

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until the deck release is complete.

3. The decking area will not be released until access by stairs is provided to the decking area, and fall hazards have been controlled by perimeter guardrails or hard barricades.

4.33 Roofing Kettles and Melting Equipment

- A. All roofing kettles and melting equipment will be sufficiently vented to prevent pressurization, and be equipped with a functional thermometer.
- B. The ideal kettle/equipment temperature, and maximum kettle/equipment temperature to prevent vapor ignition, will be noted on the PTP and will be known by the kettle/equipment operator.
- C. Kettles and melting equipment may not be located on finished, or partially finished, roof surface, or in any enclosed structure. Kettles and melting equipment will be kept at least 50 feet from any ancillary (i.e. not involved in the work) combustible materials.
- D. Kettle or melting equipment fires will not be started until the GC Partner has authorized a hot work permit. At least one 20-pound ABC extinguisher will be immediately available to the kettle or melting equipment operator.
- E. All kettles, melting equipment, or liquid pumps will be equipped with an emergency shutoff to stop the flow of heated liquid. If pipelines are used, multiple emergency shutoff points may be necessary (e.g. one at the equipment, one on the roof).

4.34 Work Zone Traffic Controls

- A. This section applies to construction work which is conducted adjacent to, or in the same area as, non-construction traffic. Non-construction traffic includes the general public, and Facebook operational traffic.
- B. A documented Work Zone Traffic Control Plan, approved by the GC Partner, will be completed prior to establishing any protection zone.
- C. The GC Partner, or the Supply Chain Partner managing the protection zone, will conduct a daily, documented inspection, including pictures, of the protection zone to verify all planned controls are in place and functional.
- D. Employees working within the protection zone will wear minimum ANSI Class II, or Local Agency/Authority equivalent reflective garments. The protection zone plan will specify what types and classification of garments are required for employees within the zone.
- E. When work is to occur at night, or other low-light times (dawn, dusk), the Work Zone Traffic Control Plan will include methods of illumination for work areas.
- F. If flaggers are required by the Work Zone Traffic Control Plan, the following elements apply:
 1. The flaggers will be trained, and certified to conduct flagging operations.

2. The flaggers will be equipped with necessary equipment such as a stop/slow paddle, lighted wand, or traffic control signal.
3. The flaggers will be supplied with a means of communication to communicate with the other flagger(s) and other affected parties (supervisor, safety manager, etc.)

4.35 Weather

A. The GC Partner will monitor and share weather updates daily, and when conditions change.

B. Cold and Winter Weather

1. The GC Partner, in partnership with Supply Chain Partners, will develop a project-level “Cold and Winter Weather Preparation Plan” which will be submitted to the Owner for review 60 days prior to the start of winter (mid-October for Northern Hemisphere). The plan may include the following elements:
 - a. Temporary heating systems and plans, including warming stations for unheated spaces
 - b. Water system freeze protection plans
 - c. Snow and ice removal/control plans, including snow storage areas, track off areas
 - d. Cold weather supply procurement plan and cost (ice melt, gloves, hats, hand warmers, etc.)
 - e. Cold stress/exposure plan for determining employee warmup schedules
 - f. Communication plans for disseminating cold and winter weather information such as shutdowns, delayed openings, special conditions, etc.
2. Each Supply Chain Partner will develop an employer-specific “Cold and Winter Weather Preparation Plan” which aligns with the overall site plan developed by the GC Partner.
3. This section is not required for project locations which do not experience, or have minimal potential to experience, cold (<32° Fahrenheit) and winter weather.

C. Hot Weather

1. The GC Partner, in partnership with Supply Chain Partners, will develop a project-level “Heat Illness Prevention Program” which will be submitted to the Owner for review 60 days prior to the start of summer (mid-April for Northern Hemisphere). The plan will include the following elements:
 - a. Means to provide adequate drinking water (2 gallons per day per employee) which is potable, cooled, and intended for drinking use only.
 - b. Identified shade and cool down structures including the type(s) of structures, locations, and cooling equipment (as applicable). These shade and cool down

structures will be readily accessible to all employees exposed to the heat, be located close to the work areas, and supplied with drinking water.

- c. Methods for determining work/rest (cool down) schedules once the temperature, or heat index, reaches 80° Fahrenheit. The work/rest (cool down) schedule will include provisions for acclimatizing unfamiliar employees to the heat. Once the temperature, or heat index, reaches 95° Fahrenheit, the plan will require employees take a cool down break every 2 hours, for a minimum of 10 minutes. All employees will be permitted to take a break of at least five minutes, whenever they feel they are overheating, or appear to be overheating.
- d. Employee training in the recognition of the signs and symptoms of heat illnesses, first aid treatment of heat illnesses, and how to summon additional medical resources (on-site medical providers, emergency services, etc.)
- e. Plans for monitoring employees working independently, or groups of employees in high heat areas, for heat illnesses by supervisor or designee.
- f. Communication processes for disseminating heat exposure information to employees.

- 2. Each Supply Chain Partner will develop an employer-specific “Heat Illness Prevention Program” which aligns with the overall site plan developed by the GC Partner.

- D. The GC Partner will integrate potential emergency weather scenarios (severe weather) into the Emergency Action Plan.

4.36 Wellness Program

- A. The GC Partner, and Supply Chain Partners will develop and implement a project level Wellness Program which promotes a culture of caring, and provides wellness resources for employees on the project, regardless of employer.
- B. The GC Partner, with support of the Supply Chain Partners, will lead a site Wellness Committee composed of volunteers which represent the cross-section of employees working on the project. This Committee will meet (monthly minimum) to discuss and evaluate the effectiveness of the elements of the Wellness Program.
- C. The Wellness Committee will be responsible for developing an annual Wellness Program Calendar which aligns with the Global Wellness Calendar. The calendar will detail events, initiatives, trainings, and other wellness related programming.
- D. Mental Health First Aid (MHFA) Training will be provided for interested employees on the project. These trained employees will contribute to the wellness program, and will assist other employees when requested.
- E. The Wellness Program will include means and methods for communicating Wellness related information to the greater workforce such as newsletters, poster boards, tv messages, emails, or

similar.

1. References

For the purpose of this Safebook manual, the requirements included the references below will be considered to be a part of this Safebook manual.

- A. WOW001- Pantheon of Safety- Revision 4, 07/13/2020
- B. WOW002: Energy Marshal- Revision 1, 04/25/2020
- C. WOW005: Joint Safety Walks- Revision 1, 08/17/2020
- D. SafeBook Addendum: COVID-19 Expectations- Revision 1, 07/13/2020