

California High-Speed Rail Project




Design-Build Contract for Construction Package 2-3

Agreement No. HSR13-57



A joint venture

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SAFETY AND SECURITY MANAGEMENT PLAN

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Safety and Security Management Plan



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Table of Contents

DF Safety and Security Policy Mission Statement.....	7
ACRONYMS.....	8
1. Safety Security Management Plan	9
1.1 Management Team	9
1.2 Roles and Responsibilities.....	9
1.2.1. Project Safety Manager/Representative.....	9
1.2.2. Project Manager/Segment Manager/Superintendents/Foremen.....	10
1.2.3 Subcontractor Safety Representative.....	11
2. Job Hazardous Analysis.....	11
2.1 JHA General.....	11
2.2 JHA Development.....	14
2.3 Activities Requiring JHAs	14
2.4 Responsibilities.....	16
2.5 Minimum Plan Requirements for Activities with a High Risk Assessment.....	17
2.6 Safety and Health Hazards	17
2.7 Controls	18
2.8 Environment.....	19
2.9 Equipment.....	19
2.10 Training.....	19
3. Incident and Near Miss Reporting and Investigating.....	16
3.1 Near Misses and Incidents.....	16



3.2 Reporting Procedures.....	17
3.3 Investigation Procedures.....	17
3.4 Incident Investigations.....	18
3.5 Internal Reporting timing.....	18
3.6 Recordkeeping and Documentation.....	19
4. Site Orientation.....	19
4.1 General.....	19
4.2 Annual Refresher.....	20
4.3 Equipment and Supplies.....	20
4.4 Required Subject Matter to be Instructed.....	20
5. Public Protection.....	22
6. Personal Protective Equipment.....	24
6.1 General.....	25
6.2 Job Hazard Analysis.....	26
6.3 Inspection.....	26
6.4 Selection and Criteria.....	26
6.5 Chemical Resistant PPE.....	28
6.6 Personal Flotation Devices.....	28
6.7 Requirements for Fire-Resistant Clothing.....	29
6.8 PPE for Welding and burning.....	29
6.9 Hearing Protection.....	30
6.10 Respiratory Protection.....	30
6.11 Fall Protection.....	30



6.12 Training.....	30
7. Mobile Equipment.....	30
7.1 Maintenance and Inspections.....	31
7.2 Safe Operation of Mobile Equipment.....	31
7.3 Guarding and Safety Devices.....	33
7.4 Loading and Unloading.....	34
7.5 Flaggers and Signalers.....	34
7.6 Vehicle Traffic Control Planning.....	34
7.7 Training.....	35
8. Fall Protection.....	36
8.1 Controlled Access Zones.....	36
8.2 Guardrails.....	36
8.3 Covers.....	37
8.4 Safety Nets.....	37
8.5 PFAS.....	37
8.6 Lifelines.....	38
8.7 Scaffolds, Aerial Lift Equipment, and Moveable Work Platforms.....	39
8.8 Safety Monitoring Systems.....	39
8.9 Warning Line Systems.....	39
8.10 Rescue Plans and Procedures.....	39
8.11 Working Over or Near Water.....	39
8.12 Training.....	40
9. Roadway Worker Protection.....	40
9.1 Working Limits.....	41
10. Hazard Communication.....	42



10.1 Training.....	42
10.2 Written Hazard Communication Program.....	43
10.3 Multi-employer Worksites.....	43
10.4 Hazardous Substance Inventory.....	44
10.5 Safety Data Sheets (SDS).....	44
10.6 Labels.....	45
10.7 Spill Response.....	45
10.8 Non-Routine tasks.....	46
11. Electrical System and Control of Hazardous Energy, (LO/TO).....	46
11.1 Electrical Systems.....	46
11.1.1 Overhead/Underground Clearances.....	46
11.1.2 Guarding Live Equipment.....	47
11.1.3 Temporary Wiring, Panels, and Lighting.....	47
11.1.4 Grounding/Ground Fault Circuit Interrupters, (GFCIs).....	47
11.1.5 Overcurrent Protection.....	47
11.1.6 Disconnects/Switches.....	48
11.1.7 Cords, Cables, and Electrical Wire.....	48
11.1.8 Electrical tools.....	49
11.1.9 Hazardous (classified) locations.....	49
11.2 LO/TO.....	49
11.3 Arc Flash.....	50
11.3.1 Electrical Safe Work Practices.....	50
11.3.2 Minimum Voltage Boundary-Arc Flash Analysis.....	51
11.3.3 PPE and Tools.....	51
11.3.4 Labeling and Signage.....	51
11.4 Training.....	52
11.4.1 Authorized Employees.....	52



11.4.2 Affected Employees.....	52
11.4.3 Training Documentation.....	52
12. Fire Protection.....	52
12.1 General Precautions Against Fire.....	52
12.2 Reporting and Alarms.....	53
12.3 Means of Egress and Elevators.....	54
12.4 Water Supply for Fire Protection, Standpipes and Sprinkler Systems.....	54
12.5 Housekeeping and Storage.....	55
12.6 Portable Fire Extinguishers.....	55
12.7 Portable Fueled Space Heaters,(if applicable).....	56
12.8 Flammable and Combustible Liquids.....	56
12.9 Flammable Gases and Oxygen.....	57
12.10 Small Arms Ammo,(SAA), for Powder Actuated Tools.....	59
13 Security Management Programs.....	59
13.1 Security Management of Properties.....	60
13.2 Workforce Screening, Access/Security Badging Program.....	61
13.3 Threat Vulnerability Assessments.....	61
14 . Emergency Action Plan.....	62
14.1 Emergency Action Plan Development.....	62
14.2 Roles and Responsibilities.....	63
14.3 Site Communication Methods.....	64
14.4 Sirens, Alarms, and Signaling Devices.....	64
14.5 Program Review and Update	64
14.6 Hazard and Incident Assessment	65
14.7 Muster Points.....	65



14.8 Response Resource Evaluation	66
14.9 Access and Control	66
14.10 Drills and Exercises	67
14.11 Training	67
15. Hazardous Waste Operations.....	68
15.1 Lead.....	68
15.2 Asbestos Containing Materials.....	68
15.3 Soils.....	70
16. Work Zone Traffic Control.....	71
16.1 Work Zone Duration.....	71
16.1.1 Mobile Work Zones	71
16.1.2 Short Duration.....	72
16.1.3 Short-Term Stationary.....	72
16.1.4 Intermediate-Term Stationary	72
16.1.5 Long-Term Stationary.....	72
16.2 Traffic Control Plan	72
16.3 Operational Practices	73
16.3.1 Pedestrians	75
16.3.2 Bicycles	75
16.3.3 Schools.....	75
16.4 Training and Qualifications	76
16.4.1 Traffic Control Supervisor	76
16.4.2 Flagger.....	76
16.4.3 Workers.....	76



APPENDIX A (Organizational Chart).....	77
APPENDIX B (JHA Example).....	78
APPENDIX C (TTC Example).....	79
APPENDIX D (Incident Report Form pg. 1).....	80
APPENDIX D (Incident Report Formpg.2)	81
APPENDIX E (On-Site Emergency Response Worksheet).....	82
APPENDIX F (Daily Risk Assessment, DRA).....	83
APPENDIX G (DFJV Inspection Check list pg.1).....	84
APPENDIX G (DFJV Inspection Check list pg.2).....	85



REVISIONS INDEX Date	Revised Sections	Rev Number



DF Safety and Security Policy Mission Statement

The Dragados USA, Inc. and Flatiron West, Inc. Joint Venture ("DF") is committed to protecting the safety, security, and health of our employees, by working with our construction management and subcontractor partners for the protection of their respective workforces. Maintenance of strong, open communication lines where all interested parties add value to safety and security. DF is committed to providing a safe and secure travel and work environment. Therefore, safety, accident prevention, and security breach prevention must be incorporated into the performance of every employee task. The DF Management Team, subcontractors and employees are charged with the responsibility for ensuring the safety and security of employees, contractors, emergency responders, and the public who come in contact with CP 2-3. Each individual and organization is responsible for hazard and vulnerability management, for applying the processes that are designed to ensure safety and security, and for maintaining established safety and security standards, consistent with their position and organizational function. Through a cooperative team effort and the systemic application of safety and security principles, CP2-3 will be designed and constructed, in a safe and secure manner.

This approach, in conjunction with a strong management commitment and maintenance of positive relationships will prove to be an invaluable asset to DF, its partners, and its neighbors. Meeting this goal will require steadfast dedication at every level of the construction project, and begins with this commitment by the management team at DF JV. This Mission will be accomplished through a multi-dimensional approach to the management of safety and security, including the following:

- Development of strong partnerships between DF, CHSRA and Subcontractors.
- Implementation of a comprehensive, Safety Security Management Plan for all construction activities.
- A defined accountability and responsibility program that fosters safety and security ownership during construction.
- A structured self-evaluation program for the purpose of monitoring and continuous improvement.
- Development and maintenance of a training and education program specific to construction activities, as well as security needs while on the CP 2-3 project.
- A defined set of company-wide goals and objectives related to the safety, health, and security of the workforce.
- Injury prevention through a focus on activity pre-planning at every level of construction.
- A subcontractor assessment process intended to increase the value of safety/security management systems.
- Coordination program with local law enforcement for incident reporting and other security related conditions or events.



ACRONYMS

ADA	Americans with Disabilities Act
AHJ	Authority Having Jurisdiction
CAZ	Controlled Access Zone
CSO	Construction Safety orders
CICP	Construction Industry Crime Prevention
CN	Crane Notice
CPR	Cardiopulmonary Resuscitation
CHSRA	California High Speed Rail Authority
CHSTS	California High Speed Train System
DEP	Department of Environmental Protection
DF	Dragados USA; Flatiron West, Inc.; (JV)
ECPs	Energy Control Procedures
EHS	Environmental Health and Safety
FOP	Falling Object Protection
GFCI	Grounding/Ground Fault Circuit Interrupters
HCP	Hazard Communication Program
HWRP	Hazardous Waste Remediation Plan
HWP	Hot Work Permit
JHA	Job Hazard Analysis
LEL	Lower Explosive Limit
LID	Load Indicating Device
LMI	Load Moment Indicator
LOTO	Lockout/Tagout
LPG	Liquefied Petroleum Gas
NEC	National Electrical Code
NFPA	National Fire Protection Association
OSHA	Occupational Safety and Health Administration
PAI	Permit Authorizing Individual
PE	Professional Engineer
PFAS	Personal Fall Arrest System
PFD	Personal Flotation Device
PPE	Personal Protective Equipment
ppm	Parts per Million
PRCS	Permit-required Confined Space
RAC	Risk Assessment Codes
ROPS	Rollover Protection Structure
SAA	Small Arms Ammunition
SDS	Safety Data Sheets
SHEMP	Safety Health and Environmental Management System Program
SRL	Self-retracting Lifeline
SSMP	Safety Security Management Plan
SSHASP	Site Specific Health and Safety Plan
SSSP	Site Specific Safety Plan



1. Safety Security Management Plan

1.1 Management Team

DF Project Manager/Director, Lloyd Neal

DF Construction Manager, **TBD**,

DF Construction Quality Manager, Antonio Gimenez

DF Rail/Roadway Manager, **TBD**,

DF Structures Manager, **TBD**,

DF System Safety /Security Oversight Manager, Kofi Kyei

DF Construction Safety/Security Manager, Gordon White

DF MOT Superintendent, **TBD**,

DF Utility Coordinator / Permit Manager, **TBD**,

(See Appendix A for Fresno DFJV Organizational Structure Chart).

The organizational chart that identifies all Safety/Security Management Personnel, their roles, authorities, and line reporting relationships is provided in the Project Administration of the Project Management Plan. DFJV, Subcontractors, shall participate in the preparation of JHA's, DRA's, inspections and audits, coordinate with third parties, such as, emergency responders and adjacent railway operators, to ensure an interactive and thorough safety reporting system. This system shall conform to all regulatory requirements, including Federal, 49 CFR parts 200-299, State, CCR Title 8, CSO's, CA-MUTCD, or Local jurisdictions, as required by the SSMP. This Safety Security Management Plan and associated documents shall be kept on site and made available to all employees, authorized visitors, and the Authority upon request.



1.2.3 Subcontractor Safety Representative

- Shares the overall responsibility and authority for management of the safety/security program for assigned employees;
- Shall enforce compliance with Project SSMP,SSHASP,SSSP, OSHA Standards, and all other federal, state, and local regulations;
- Shall pre-plan operations to prevent personal injury and property damage. Construction Plans for new or modified operations are to be prepared, reviewed, and submitted to the DF **Segment Manager** prior to the operation's commencement for review;
- Shall require that **Employees** under his/her command have the adequate training and knowledge to complete the task at hand;
- Shall attend the Monthly Management Safety Meeting and Monthly Mass Safety Meeting;
- Shall investigate all accidents, incidents and near misses, and security breaches, in conjunction with the DF, **Segment Manager** and **Project Safety Manager**, subcontractor **Foreman**.
- Shall train their employees to perform their work in a safe manner and to recognize and correct potential and actual hazards and unsafe acts.
- Shall make a complete safety/security inspection of their operations with written reports to the **Project Safety Manager** noting corrective action to identified hazards or vulnerabilities.

1.2.4 Project employees

- Shall attend the Project Safety/Security Orientation and complete the form prior to beginning work on the project;
- Shall perform their work in a safe manner for prevention of accidents to themselves, fellow **Employees**, the general public, and property of all concerned;
- Shall attend and participate in Daily Risk Assessments, (DRA's)
- Shall attend and participate in weekly tool box talks;
- Shall be given the opportunity to participate on the Safety and Security Committees.
- Shall alert and notify their **Foreman** of hazards and unsafe acts;
- Shall comply with the Project SSMP, SSHASP, SSSP, OSHA Standards, and all other federal, state, and local regulations.

2. Job Hazard Analysis

2.1 General

- A Job Hazard Analysis (JHA) is a tool used to document a process by which the steps required to accomplish a work activity are outlined, the actual or potential hazards for each step is identified, and measures for the elimination or control of those hazards are developed.
- JHAs will be developed as the work progresses.



- Shall investigate all accidents, incidents and near misses, and security breaches, in conjunction with the general contractor **Segment Manager** and **Project Safety Manager**, subcontractor **Safety Representative** ;
- Shall require each employee's attendance at the Project Safety/Security Orientation.
- Shall require each employee's attendance at the Daily Risk Assessment, (DRA's).
- Shall attend each Monthly Management Safety Meeting and Monthly Mass Safety Meeting.

1.2.3 Subcontractor Safety Representative

- Shares the overall responsibility and authority for management of the safety/security program for assigned employees;
- Shall enforce compliance with Project SSMP,SSHASP,SSSP, OSHA Standards, and all other federal, state, and local regulations;
- Shall pre-plan operations to prevent personal injury and property damage. Construction Plans for new or modified operations are to be prepared, reviewed, and submitted to the DF **Segment Manager** prior to the operation's commencement for review;
- Shall require that **Employees** under his/her command have the adequate training and knowledge to complete the task at hand;
- Shall attend the Monthly Management Safety Meeting and Monthly Mass Safety Meeting;
- Shall investigate all accidents, incidents and near misses, and security breaches, in conjunction with the DF, **Segment Manager** and **Project Safety Manager**, subcontractor **Foreman**.
- Shall train their employees to perform their work in a safe manner and to recognize and correct potential and actual hazards and unsafe acts.
- Shall make a complete safety/security inspection of their operations with written reports to the **Project Safety Manager** noting corrective action to identified hazards or vulnerabilities.

1.2.4 Project employees, (DFJV/Subcontractors).

- Shall attend the Project Safety/Security Orientation and complete the form prior to beginning work on the project;
- Shall perform their work in a safe manner for prevention of accidents to themselves, fellow **Employees**, the general public, and property of all concerned;
- Shall attend and participate in Daily Risk Assessments, (DRA's)
- Shall attend and participate in weekly tool box talks;
- Shall be given the opportunity to participate on the Safety and Security Committees.
- Shall alert and notify their **Foreman** of hazards and unsafe acts;

- Shall comply with the Project SSMP, SSHASP, SSSP, OSHA Standards, and all other federal, state, and local regulations.

2. Job Hazard Analysis

2.1 General

- A Job Hazard Analysis (JHA) is a tool used to document a process by which the steps required to accomplish a work activity are outlined, the actual or potential hazards for each step is identified, and measures for the elimination or control of those hazards are developed.
- JHAs will be developed as the work progresses.
- JHAs are living documents and shall be reviewed and updated as necessary to address changes in site conditions, operations, equipment and as hazards not anticipated for the activity arise. Work may not begin until the JHA for the work activity has been reviewed with affected personnel. Any changes made to the JHA shall also be effectively communicated to affected personnel.
- JHAs shall be maintained at the DF project office and made available for review by all stakeholders.

2.2 JHA Development

JHAs shall be developed whenever the activity is:

- Required by a DF Safety Health and Environmental Management System Program (SHEMP) (e.g., Fall Protection, Fire Prevention); or
- Listed in the attached table of "Activities Requiring JHAs"; or
- Has a Risk Assessment Code (RAC) of "Moderate" or above or
- Has a RAC of "High". Additionally a detailed plan prepared by a **Qualified Person** is required (Plans are to be reviewed by DF Safety Team prior to the start of the activity).

2.3 Activities Requiring JHAs

- All activities appearing on the schedule and look ahead;
- All activities requiring crane/lifting devices and their set-up and disassembly;
- All activities requiring the use of mechanized tools and equipment;
- All activities requiring the use of fall protection/prevention;
- All work on live electrical;
- All excavations;
- All confined space work;
- All activities requiring hot work;

- All tunneling related activities;
- All activities requiring LOTO;
- All rail activities
- All MOT activities;
- Any Low Risk activity that experiences a near miss or incident.

Figure 2.0

Risk Assessment Code (RAC) Matrix					
Severity	Probability				
	Frequent	Likely	Occasional	Seldom	Unlikely
Catastrophic	E	E	H	H	M
Critical	E	H	H	M	L
Marginal	H	M	M	L	L
Negligible	M	L	L	L	L
Step 1: Review each “Hazard” with identified safety “Controls” and determine RAC (See above)					
“Probability” is the likelihood to cause an incident, near miss, or accident and identified as: Frequent, Likely, Occasional, Seldom or Unlikely.			RAC Chart E = Extremely High Risk H = High Risk M = Moderate Risk L = Low Risk		
“Severity” is the outcome/degree if an incident, near miss, or accident did occur and identified as: Catastrophic, Critical, Marginal, or Negligible					
Step 2: Identify the RAC (Probability/Severity) as E, H, M, or L for each “Hazard” on JHA. Annotate the overall highest RAC at the top of JHA.					

FIGURE 2.1

Probability of Occurrence Descriptions:	Severity of Injury/Illness and Environmental
Frequent – Likely to occur repeatedly	Catastrophic – Death or permanent total disability
Likely – Likely to occur several times	Critical – Disability in excess of 3 months
Occasional – Likely to occur sometime	Marginal – Minor injury, lost workday accident
Seldom – Not likely to occur	Negligible – First Aid or Minor Medical Treatment
Unlikely – Improbable, may assume exposure will not happen	

	Risk Assessment Codes (RACs)
EXTREMELY HIGH	Not allowed without Corporate written approval and Owner approval
HIGH	Requires plan prepared by a Qualified Person
MODERATE	JHA Required
LOW	No JHA Required

The essential steps in developing a JHA are as follows:

- Determine the work activities to be analyzed.
- Determine tools, equipment and materials.
- Break each work activity into sequential steps.
- Identify the hazards associated with each step.
- Provide safe work procedures, controls, and safeguards to eliminate or minimize risk.

2.4 Responsibilities

- JHAs shall be prepared by, at a minimum, a Competent Person. Persons performing the activity (i.e. “closest to the hazard”) should participate in the development of the JHA.

- Activities with a RAC of “High” shall require a plan prepared by a Qualified Person.
- Subcontractors and lower-tier contractors shall prepare JHAs for their activities or review, agree to, and sign-off on JHAs already prepared by DF.

2.5 Minimum Plan Requirements for Activities with a High Risk Assessment

For activities with a RAC of “High”, the plan shall include all elements of a JHA and, in addition, identify the following:

- A detailed breakdown of the scope of work.
- Specific procedures, including the means and methods, for how the work will be executed.
- Controls and additional oversight measures for managing the activity’s risk and ensuring compliance with applicable regulations.
- Identification and documentation of credentials (e.g., licenses) to ensure individuals are qualified to safely execute the associated work.

All plans prepared by a Qualified Person are to be reviewed by DF Project Manager prior to the start of the work activity.

2.6 Safety and Health Hazards

After listing all job steps, identify the hazards in each step. Identify all actual and potential hazards whether they result from an unsafe act or unsafe condition or both. Hazards common to many activities are as follow:

- Struck by objects
- Struck against objects
- Caught in or between objects
- Falls to lower levels
- Falls on same levels
- Overexertion in lifting
- Exposure to harmful substances (Chemicals, Biological)
- Exposure to harmful environment (Temperature, Noise)
- Fire/Explosion
- Electrical
- Drowning
- Stored or Hazardous Energy
- Simultaneous Work/Operations
- Motor vehicles (driving, operating, traffic)

2.7 Controls

The next phase of the JHA is to develop recommended procedures and safeguards. Determine whether the job can be performed in another way to eliminate hazards or whether equipment and precautions are needed to reduce the hazards. Describe the recommended procedure or precaution in terms of acts or behavior, to help the employee who is learning the job. Be specific - merely writing "use caution" or "be careful" is not useful information.

- List ways to eliminate or control the hazards associated with each step.
- Engineering controls, administrative controls, providing personal protective equipment, using different tools and equipment can minimize hazards.
- Recommended controls should be observable. Avoid words such as proper, appropriate, etc.

Control methods should follow the hierarchy of controls. The hierarchy of control is as follows:



Elimination of the Hazard – The best way to control a hazard is to eliminate it and remove the danger. This can be done by changing a work process in a way that will eliminate the hazard, for example: having workers perform tasks at ground level rather than working at heights.

Substitution –The second best way to control a hazard is to substitute something else in its place that would be non-hazardous or less hazardous to workers. For example substitute a highly flammable material with a non-flammable material.

Engineering Controls – If a hazard cannot be eliminated or a safer substitute cannot be utilized, the next best approach is to use engineering controls to keep the hazard from reaching the worker. Examples of engineering controls include: the use of guardrail systems, mechanical lifting devices, and local exhaust ventilation, etc.

Warnings – When hazards cannot be eliminated, substituted or engineered out of an activity, warnings (e.g., alarms or signage) can be used. For example, back-up alarms on trucks that are backing up are an example of effective warning systems.



Administrative Controls – Administrative controls involve changes in workplace policies and procedures. For example, workers could be rotated in and out of a hot environment rather than having to spend eight hours per day in the heat.

Personal Protective Equipment (PPE) – PPE is the least desired method for protecting workers from hazards. PPE should be used only when other more effective controls cannot be implemented.

2.8 Environment

Consideration shall be given to the impacts the activity will have on the surrounding environment and the methods that will be used to minimize the potential environmental impact. Examples of environmental controls that should be incorporated into the JHA include secondary containment, erosion and sedimentation barriers.

2.9 Equipment

In this section of the JHA the specific type of equipment required for the activity is defined. For example, if a ladder is required the JHA should state “20 foot Type 1 AA Extra heavy duty fiberglass ladder”.

2.10 Training

List the training that is required for the activity. The training should be consistent with DF EHS Standards, CAL/OSHA Title 8, FRA regulations 49 CFR parts 200-299, state and local regulatory requirements, CA-MUTCD. Documentation of training shall be readily available for review by stakeholders.

3. Incident and Near Miss Reporting and Investigation

3.1 Near Misses and Incidents

For the purposes of this standard, a near miss shall be defined as:

“An opportunity to improve environmental, health and safety performance based on a condition, or an incident with potential for more serious consequence.”

This includes things such as:

- Unsafe conditions;
- Unsafe behaviors;
- Events where injury could have occurred but did not;



- Events where property damage could have resulted but did not;
- Events where a security or safety barrier is challenged; and
- Events where potential environmental damage could result.

An incident is an event in which a person or persons are injured or made ill, property or equipment is damaged, a security or safety barrier is challenged or breached, the environment is harmed or an environmental release occurs.

For purpose of determining an incident or near miss, work-relatedness shall not be considered. All occurrences on CHSR meeting the definition of near miss or incident shall be reported; this includes workplace violence. The criteria for reporting incidents is outlined in the CHSRA Safety Security Incident Notification Program, PROC-PRMG-17. The proper authorities, such as, Fire/EMS, Sheriff/Police, Cal-OSHA, FRA, shall also be notified and proper the coordination shall take place depending on the scenario.

All incidents and near misses are required to be reported.

3.2 Reporting Procedures

Following an incident, immediate precautions must be taken to provide care for the injured individual, mitigate the impact of an environmental release, or secure potentially damaged property.

The CHSRA - Construction Manager (Charlie Guess) and CHSRA – Safety Manager (Ralph Morales), will be immediately notified, as soon as it is safe to do so, of all incidents as described in 3.1. Notification of Near Misses and Incidents will be made internally as soon as possible. DF's internal reporting procedures will ensure that near misses and incidents are reported from all personnel. Emergency numbers will be posted at office telephones. Summary reports shall be submitted weekly and must include ISMS-recorded safety activities for the week, daily security logs noting deployment of security personnel, any significant weather conditions, site locations covered, incident notifications or threats, any noted security equipment conditions (cut fence, broken lights), and copies of reports from local agencies who respond to incidents on the Authority's property under DF JV control.

3.3 Investigation Procedures

An investigation shall be performed for all work-related incidents and near misses. Investigations shall commence immediately following an incident.



3.4 Incident Investigation

For motor vehicle, motorized equipment or crane serious or significant incidents, DF is required to immediately screen the driver(s) or operator(s) for drugs and alcohol. All accidents, serious incidents, and injuries shall require post-accident drug screening. Where suspected as a potential cause to an incident, cell phones shall be inspected for activity during the time of the incident. Results shall be considered as part of the incident investigation.

Reports of all work-related incidents or near misses shall be provided by DF. Investigations shall identify the following:

- Contributing Factors
- Root Causes
- Corrective and Preventative Actions

For serious or significant incidents, an investigation team is required. Members shall be identified as set forth in the Tables of Immediate and System Causes Used to Determine Contributing and Root Causes of Near Misses and Incidents (Appendix A).

Areas where serious or significant incidents have occurred shall be immediately secured and rendered safe to avoid further incident. Once the affected area has been secured, it shall not be disturbed until the investigation has concluded to provide for an accurate representation of the events contributing to the incident.

The investigation shall identify contributing factor(s) and root cause(s). Contributing factors include events, conditions, tools, equipment, and/or actions that were partially responsible for the event. A root cause is defined as the ultimate direct cause(s) of the event.

Corrective actions shall address both the contributing and root cause(s). One corrective action may address multiple contributing and root causes.

3.5 Internal Report Timing

- Near miss reports should be presented within 60 minutes.
- Investigation reports for recordable incidents should be presented within the end of that business day of incident date.
- Investigation reports for lost time incidents should be presented within the end of that business day of incident date.
- Investigation reports for first aid incidents should be presented within 2 hours of incident.

3.6 Record Keeping and Documentation

All accidents, work-related injuries, illnesses, property loss and security breaches shall be documented and stored for the appropriate time. Recording tools such as The First- Aid Log, the OSHA 300 log, will be utilized as appropriate. The ISMS notification program will also be used to log safety meetings, incidents, accidents, as required.

3.7 Site Discipline/Accountability Plan

The Accountability Plan shall include disciplinary procedures to be utilized where compliance by a Subcontractor or Employee is not met. The following program elements shall be applied, at a minimum:

1. Employee Non-Compliance:

- The first offense shall require the Superintendent to issue a written warning to the employee, noting the specific Employee infraction and retraining.
- The second offense shall require the Superintendent to either suspend the employee for a period of up to five (5) days, but no shorter than the remainder of the workday on which the infraction was observed, DF Project manager and Safety Manager shall meet with the Field management to review the issue(s) and determine corrective actions. NOTE: All Corrective Actions will be documented.
- The third offense shall require the DF Superintendent to remove the employee (Subcontractor supervisor for sub employee) from the project permanently, and shall meet with the Field management to review the issue(s) and determine corrective actions.

2. Subcontractor Non-Compliance:

- The first offense shall require DF to issue a written warning to the Subcontractor, noting the infraction and recommended corrective actions.
- The second offense shall require DF Project Management to meet with the Subcontractor Management and define and document corrective actions going forward.



- The third offense shall require DF Project Management shall meet with the Contractor's management. The third offense may also include dismissal of the Subcontractor from the project.

4. Orientation

4.1 General

All employees, (DFJV and Subcontractors), working on the DF California High Speed Rail CP 2-3 shall be provided with a Site Safety/Security Orientation session conducted prior to the start of their work shift on their first day of employment. Employees who work on the project site but who do not enter into the work areas, such as but not limited to Administrative Assistants, Timekeepers, or other support personnel shall be provided with an orientation session applicable to their job. Prior to Orientation for DFJV employees and Subcontractors a background screening will take place. Upon successful completion of this orientation an access/security badge will be issued.

DF shall ensure that they complete an Orientation Checklist and obtain all necessary information. The Checklist shall be signed by an Authorized Representative of DF and shall be filed prior to the start of work.

Orientation may be provided to employees in advance of their first day of employment on the project. No more than thirty (30) calendar days shall elapse between the orientation session and the first day of employment on the DF CP 2-3 project.

Employees who are away from the project for 180 consecutive calendar days shall be required to repeat the orientation training.

Unescorted visitors to a project shall be considered an employee and be provided an EHS Site Orientation as described above.

DF shall be responsible for providing an orientation session, or ensuring that an appropriate orientation session is provided, to their employees.

Elements of the orientation training shall be repeated when the employer has reason to believe that any affected employee who has already been orientated does not demonstrate understanding of the EHS requirements presented in the orientation session.

4.2 Annual Refresher

All workers shall attend an annual refresher training to be conducted no more than two (2) months after the initial orientation anniversary date.



4.3 Equipment and Supplies

Emergency Action Plan contacts and Security/Access Badges will be provided to Orientation Trainees at the conclusion of the orientation.

Employees will be issued the required PPE at the conclusion of the orientation for the activity that they are assigned. Additional training in activity specific risks and hazards and the appropriate compliance requirements will be given by the field supervision prior to the employee starting work.

4.4 Required Subject Matter to be Instructed

Subject matter of the orientation session to be reviewed shall include but not limited to:

- EHS Project Management
- Project Site Specific Health and Safety Plan
 - Review of the SSHASP,SSMP
 - Location
 - Company Rules
 - Job Hazard Analysis
 - Purpose
 - Use
 - Location
- Hazard Communication
 - Location of SDSs,
 - Labeling system used
 - Contact person for information
- Fall Protection
 - Project rule regarding fall prevention/protection systems
 - Guardrail system construction and use
 - Hole covers
 - Personal Fall Arrest Systems
- Emergency Procedures
 - Evacuation plan
 - Alarm System
 - Muster / Rally Points and alternative muster / rally points
 - Location of first aid equipment/eyewash and drench shower
- Personal Protective Equipment (PPE) Requirements
 - DF's minimum PPE requirements
- Confined Spaces

- Definition
- Location
- Hazards
- Confined space permit system
- Excavation
 - Requirements for protective systems
 - Positive location of Utilities
 - Placement of materials
 - Access and egress requirements
- Control of Hazardous Energy (Lockout/Tagout)
 - Purpose
 - Energy sources
 - Lockout requirements
 - Lock or tag removal
- Electrical
 - Working near energized conductors
 - Lock Out/Tag Out
 - GFCI requirements
 - Guards and covers
 - Cords and plugs
 - Arc Flash
- Scaffolding
 - Tagging system
 - Fall protection
 - Falling object protection
- Hot Work
 - Definition
 - Permit system (including Permit Authorizing Individual)
 - Fire Watch
 - Precautions
 - Ladders and Stairways
 - Ladder and stairway requirements
 - Ladder type and set-up
 - Use of fixed ladders
- Fire Prevention
 - No smoking requirement
 - Handling and storage of flammable and combustible liquids
 - Compressed gas cylinder use and storage

- Housekeeping and Sanitary Requirements
- Heat Illness Prevention Program
 - Prevention
 - Recognition
 - Response
- Railroad requirements
- Solid Waste Management
 - Reduce
 - Reuse
 - Recycle
- Storm Water Management
 - Purpose
 - Control measures
- Incident Reporting
- Security Management Program:
 - The company's security objectives.
 - Specific security procedures.
 - Actions to take in case of a security breach.
 - Integrated Safety Management System, (ISMS) overview.
 - The organizational security structure.
- Requirements for attending environmental health and safety (i.e. toolbox talks)
- Valley Fever
 - Definition
 - Control measures
 - Training

4.5 Documentation

Orientation sessions shall be documented and documentation shall be available on the project for review by DF. The documentation shall include but not limited to:

- Consultants or Subcontractors name;
- DF contract number and project name;
- Date of orientation;
- Instructors or trainers name and signature;
- Subject matter presented (outline of orientation content shall be attached).

5. Public Protection Program



- Sidewalks, entrances to buildings, lobbies, corridors, aisles, doors or exits shall be kept clear of obstructions to permit safe entrance and exit of the public at all times. Americans with Disabilities Act, (ADA) rules shall be understood and implemented where necessary.
- Appropriate warnings and instructional safety signs shall be conspicuously posted where necessary. In addition, a flag person shall control the movement of motorized equipment in areas where the public might be endangered as allowed by local regulations. Where work must be performed above building entrances and exits, whether on the construction site or part of a public area, canopies shall be installed and enclosed so as to fully protect pedestrians from falling objects. These canopies shall be capable of withstanding the maximum forces that could be applied from potential falling objects, considering the maximum fall distance from the elevated work area to the canopy.
- Noise monitoring and appropriate noise reduction measures shall be addressed when working near the public. Reduction measures such as scheduling, equipment selection, barriers, etc., shall implemented if the noise levels become greater than allowable according to the governing jurisdiction. Site assessments shall take place prior to any work being conducted that may negatively impact the public. Other environmental hazards such as vibration, dust control, run off, track out, etc., must be addressed through the DRA and JHA process as well. If hazards are identified that may have negative impacts or present safety issues to the public they must be adequately addressed before any work commences. Monitoring shall be ongoing and mitigation methods appropriate for the situation.
- In areas adjacent to public walkways or travelways, canopies shall be installed and enclosed so as to fully protect pedestrians and vehicles from falling objects. These canopies shall be capable of withstanding the maximum forces that could be applied from potential falling objects, considering the maximum fall distance from the elevated work area to the canopy. In addition to the site fence required by the contract, drawings, and contract documents, the following shall apply:
 - A temporary fence shall be provided around the perimeter of above ground operations adjacent to public areas. Perimeter fences shall be at least six (6) feet high. They may be constructed of wood or metal frame and sheathing, wire mesh, gawk screening, or a combination of both.



constructed of wood or metal frame and sheathing, wire mesh, gawk screening, or a combination of both.

- Guardrails or barricades shall be provided on both sides of vehicular and pedestrian bridges, ramps, runways, and platforms. Pedestrian walkways elevated above adjoining surfaces, or walkways within six (6) feet of the top of excavated slopes or vertical banks shall be protected with guardrails. A crosswalk must contain: striping, curb cut for handicap access.
- Barricades meeting local requirements shall be provided where sidewalk shed or bridges, fences, or guardrails as referenced above are not required between work areas and pedestrian walkways, roadways or occupied buildings. Barricades shall be secured against accidental displacement and shall be maintained in place except where temporary removal is necessary to perform the work. During the period a barricade is temporarily removed for the purpose of work, a watchman shall be placed at all openings.
- Temporary sidewalks shall be provided, as directed, when a permanent sidewalk is obstructed by the Contractors operation. They shall be installed in accordance with the requirements listed above.
- Warning lights shall be maintained from dusk to sunrise around excavations, barricades or obstruction in the public areas. Illumination shall be provided from dusk to sunrise for all temporary walkways in both public and construction areas.

6. Personal Protective Equipment

6.1 General

For the DF Project, the minimum PPE requirements are detailed below:

- A shirt or T-shirt with sleeves and long pants shall be worn by project employees at all times. Tank tops and sleeveless shirts are not permitted.
- A hard hat shall be worn in all construction and operational areas, and in all other areas outside of office buildings and employee parking areas.
- The brim of the hard hat shall be worn in the forward position.



- Hard hats shall not be painted, and only authorized decals are permitted on them.
- Red hard hats are not permitted and shall be reserved for use under the emergency action program.
- Protective toed footwear meeting the ANSI standard shall be worn by all employees in all construction and operational areas, and in all other areas outside of office buildings and employee parking areas.
- Footwear shall provide ankle support where uneven site conditions exist.
- Add-on type devices, such as strap-on foot, toe or metatarsal guards, shall not be used as a substitute for protective toed footwear.
- Protective eyewear with attached or built in side shields shall be worn in all construction and operational areas, and in all other areas outside of office buildings and employee parking areas.
- Protective eyewear shall be worn under all full-face shields and welding shields. Special eye and face protection shall be used as required by the anticipated hazard (e.g., welding, cutting, chemical handling or transfer).
- Employees whose vision requires the use of prescription (Rx) lenses shall wear either protective prescription (Rx) eyewear with side shields, or protective devices designed to be worn over regular prescription (Rx) eyewear.
- Gloves or the equivalent shall be used as necessary to protect hands from physical injury.
- A Class III (or higher) high visibility vest, jacket shall be worn in all construction and DF operational areas, and in all other areas outside of office buildings and employee parking areas.
- When employees provide their own safety equipment or PPE, subcontractors shall be responsible for ensuring the adequacy of that PPE.
- An employee's corporate affiliation should be readily identifiable by labeling on either their hard hat or vest.

The above are minimum requirements; DF and subcontractors shall utilize the job hazard analysis process to identify when additional PPE is required. Deviations from the minimum PPE requirements shall be performed through the JHA/variance process.



6.2 Job Hazard Analysis

- DF and subcontractors shall identify and determine the proper PPE required for each task through a job hazard analysis.
- Job hazard analyses shall ensure that PPE is correctly identified and that implementation is consistent with workplace conditions.
- DF may make reasonable efforts to accommodate employees with religious beliefs that may conflict with determined PPE requirements. However, when reasonable efforts to accommodate employees' religious beliefs do not provide the necessary safe working environment (without PPE), then the employee must use the appropriate PPE or the employee will not be allowed to work in the area where the hazard requiring protection exists.

6.3 Inspection

- Copies of the manufacturer's PPE use, inspection, testing, and maintenance instructions shall be maintained on the job site.
- PPE shall be tested, inspected, and maintained in a serviceable and sanitary condition as recommended by the manufacturer.
- Defective or damaged PPE shall not be used. It shall be tagged as out of service and/or immediately removed from the work area to prevent use.
- Previously used PPE must be cleaned, disinfected, inspected, and repaired as necessary before being issued to another employee.

6.4 Selection and Criteria

PPE shall be selected on the basis of the hazards or potential hazards to which employees may be exposed. As required by OSHA standards, PPE shall be compliant with national consensus standards (ANSI, ASTM, and NFPA) or certified by a government agency (NIOSH), as detailed in the following table:

REQUIRED PPE COMPLIANCE STANDARDS

PPE	STANDARD
Hard hat	ANSI /ISEA Z89.1 Type I or Type II, Class G (general - low voltage electrical protection) or Class E (electrical –high voltage electrical protection) headgear.
Eye and Face	ANSI Z87.1 Daily eyewear does not meet this requirement even with attached side shield. Over the glasses (OTG) or prescription protective eyewear is required.
Foot	ASTM F2412 – Standard Test Methods for Foot Protection ASTM F2413 – Standard Specification for Performance Requirements for Foot Protection (puncture resistant, dielectric chain saw cut resistant etc...), electric hazard by stepping on live wire (EH), puncture resistant footwear devices (PR), chainsaw cut resistant (CS).
Hand	ANSI/ISEA, 105 – Hand Protection Selection Criteria Defines five levels of cut resistance with level 1 being the least and level 5 being the most cut-resistant gloves. Moderate/standard protection: Level 1 to 2; recommended for continuous use in situations where the objects handled are only mildly abrasive, i.e., using a safety knife or handling untrimmed sheet metal. Heavy duty/high- performance protection: Level 3 to 5; coated or multi-layered to improve their resistance to frequent contact with sharp or abrasive objects.
High-Visibility Apparel	ANSI/ISEA-07 Class 3 – General use – speed under 45 mph. Class 3 – night operations – limited visibility – speed over 45 mph.

Chainsaw Chaps	<p>ASTM Standard F189</p> <p>Protective leg chaps shall be worn by employees operating chainsaws. Protective leg chaps must meet the specifications in ASTM Standard F189.</p>
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6.5 Chemical Resistant PPE

- Chemical-resistant PPE shall be selected based on the information provided on the material safety data sheet (SDS) or prescribed by a specific OSHA standard.
- When the information on a SDS does not specify the type of material the chemical-resistant garments or glove is made of, DF shall consult the manufacturer of the chemical-resistant garments or a Certified Industrial Hygienist or Certified Safety Professional to determine the correct type to protect the employee from the exposure.
- Chemical-resistant PPE shall be selected according to the anticipated hazard and the data on breakthrough time, permeation rate, and degradation provided by the manufacturer.
- Employees shall inspect chemical-resistant PPE prior to use and during use in accordance with the manufacturer's instructions. When the PPE fails while in use, the employee shall immediately leave the area and notify their supervisor of the incident.
- DF shall establish procedures for decontamination of PPE, or provide disposable chemical-resistant or other PPE that may be used in a potentially hazardous environment.
- When used in a hazardous or potentially hazardous environment, specialized protective equipment (e.g., harnesses and lanyards) shall be chemical resistant.

6.6 Personal Flotation Devices (PFDs)

- U.S. Coast Guard (USCG) approved PFDs (Type III, Type V work vests, or better) are required:
- Whenever there is a drowning hazard; and
- On structures or equipment extending over or next to water, except where guardrails, personal fall protection, or safety nets are provided for employees.



- PFDs are required on barges, small boats, or other watercraft/floating vessel unless employees are in an enclosed cabin or cockpit.
- PFDs shall be of a highly visible orange/reddish color with reflective material attached to the front and back sides.
- PFDs shall be equipped with a USCG approved, automatically activated light and whistle. Lights are not required on projects performed exclusively during daylight hours.

6.7 Requirements for Fire-Resistant Clothing

- Employees and subcontractors must wear fire-resistant clothing when performing tasks that may expose them to the hazards of flame or electric arc.
- In situations where employees are required to wear FR clothing, all layers of clothing, including undergarments, underneath the FR clothing must be either FR or 100% natural fiber (wool, cotton, silk, etc.).
- Employees are prohibited from wearing clothing containing polyester, nylon, rayon, and acetate, alone or in blends, when performing tasks that may expose them to flash fire or explosion resulting from the hazards of the work. This may include welding, potential for electric arc, etc.

6.8 PPE for Welding and Burning

Employees exposed to the hazards created by welding, cutting, or brazing operations, including assistants and fireguards, must wear fire-resistant coveralls. Employees performing welding or cutting activities must also don the following equipment:

- Fire-resistant gauntlet gloves.
- Fire-resistant coveralls.
- Fire-resistant aprons or leather vests, jackets, leggings, sleeves, and spats worn over the fire-resistant coveralls when additional protection against sparks and radiant energy is needed.
- 100% natural fiber undergarments.
- A flame-retardant skullcap with ear covers for overhead work.



6.9 Hearing Protection Hearing protection shall be made available to employees when the noise level exceeds 85 decibels (dBA).

6.10 Respiratory Protection

- Only National Institute for Occupational Safety and Health (NIOSH) approved respirators, cartridges, filters, and other components shall be used.
- In accordance with CCR Title 8 section 5144, DF shall have a written respiratory program.
- All employees shall be medically cleared and fit tested for the make, model and type of respirator worn.

(See SSHASP for complete Respiratory Protection Program)

6.11 Fall Protection

- Where walking or working surfaces are 6 feet or more above a lower level, a personal fall arrest system (PFAS) shall be used by employees exposed to fall hazards, in accordance with DF's EHS Fall Protection Standard.
- PFASs are not required when the fall hazard is mitigated by a guardrail system, safety net, or equivalent means to prevent a person from falling.
- PFASs and components shall be ANSI/ASSE Z359.1 and A10.32 compliant.

6.12 Training

Employees required to use PPE shall be trained on the limitations of PPE, proper use (don, doff and adjust), and maintenance. Employees shall receive hazard awareness training that will identify the reason for using PPE and the consequences of not using it.

Retraining is required when DF has reason to believe that any affected employee who has already been trained does not have the understanding or competency to use PPE. Circumstances where retraining is required include, but are not limited to, situations where:

- Changes in the workplace render previous training obsolete;
- Changes in the types of PPE to be used render previous training obsolete; or



- Inadequacies in an affected employee's knowledge or use of assigned PPE indicate that the employee has not retained the requisite understanding or skill.

7. Mobile Equipment

The scope of this standard includes, but is not limited to passenger vehicles, pickup and dump trucks, all-terrain vehicles, golf carts, materials handling and delivery vehicles, earthmoving equipment (scrapers, loaders, crawlers or wheel tractors, bulldozers, off-highway trucks, backhoes and similar equipment).

7.1 Maintenance and Inspections

- Mobile equipment shall be inspected and tested by a Competent Person. Documentation shall be maintained of all Competent Persons to include their qualifications and training
- Inspections and tests shall be performed in accordance with the manufacturer's recommendations and documentation shall be maintained.
- Inspections shall be performed and documented prior to each day's use to determine that the brakes and operating systems are in proper working order, that all required safety devices are in place and functional, and that the system shows no signs of leakage.
- Mobile equipment failing inspection shall be repaired before use, or tagged out of service by the Competent Person
- Mobile equipment shall be re-inspected and tested prior to being returned to service
- Mobile equipment shall be shut down and positive means taken to prevent operation while repairs or maintenance is being performed
- Mobile equipment shall be shut down before and during fueling operations
- Mobile equipment shall not be left idling for long periods of non-use during construction activities
- No modifications or additions which will affect the capacity or the safe operation of mobile equipment shall be made without the manufacturer's approval

7.2 Safe Operation of Mobile Equipment

- Mobile equipment shall only be operated by Qualified Personnel.



- Personnel shall strictly abide by the recommended safe operating speed of motor vehicles and motorized equipment and the posted speed limit signs whichever is more restrictive.
- Climbing on or off mobile equipment while in motion is strictly prohibited.
- Personnel shall be knowledgeable of all road conditions and structures to assure that clearances and load capacities are safe for passage and operating of mobile equipment.
- No personal clothing, water jugs or lunch boxes shall be stored on or in mobile equipment. The operators' personal effects are permitted and must be secured in the cab at all times.
- Personal stereo headsets, texting or cell phone use is not permitted when operating mobile equipment.
- Mobile equipment shall be properly secured; blocked or chocked while not in operation and the parking brake shall be set.
- Mobile equipment shall not be parked and left unattended on grades/slopes or poor road conditions that may cause the vehicle to move, rollover, or strike people, property or other equipment.
- Mobile equipment shall be equipped with seat belts and occupant restraining devices that are required by the manufacturer and specified to be worn during vehicle operation in accordance with the manufacturer's requirements for the safe operation of the vehicle.
- Seat belts and all occupant restraining devices that are required by the manufacturer shall be inspected and worn by personnel while vehicle is in operation.
- Personnel are not permitted to ride on vehicles unless additional seat belts and Rollover Protection Structure (ROPS) or Falling Object Protective System (FOPS) are designed and provided in accordance with the manufacturer's specifications.
- Pushing/pulling of mobile equipment not designed or in accordance with the manufacturer's specifications is strictly prohibited.
- No personnel shall be permitted to ride with arms or legs outside of vehicle body, in a standing position on the body, on running boards, seated on side fenders, cabs, shields, rear and bed of vehicle or on the load.
- Personnel shall not be transported in the bed of a pick-up truck, dump truck or stake truck.



- Drivers of vehicle shall leave the cab of the vehicle while it is being loaded when exposed to the danger from suspended loads or overhead leading equipment unless the cab is adequately protected.
- Personnel shall not operate mobile equipment in reverse unless it is equipped with a reverse signal alarm, warning device, or a flagger/signal person when there is a danger of the operator striking employees, other vehicles or structures.
- High-lift industrial trucks shall be equipped with overhead guards to protect the operator.
- No personnel shall be raised to any elevation by an industrial lift truck.
- No personnel platforms designed for use with a high-lift industrial truck shall be permitted during any construction activity on the site and unless approved by DF.

7.3 Guarding and Safety Devices

Mobile equipment shall be equipped with FOPS when exposed to falling or flying objects and certified by either the manufacturer or a licensed PE complying with Society of Automotive Engineers (SAE).

Mobile equipment to include the following shall also be equipped with ROPS designed by the manufacturer to include but not limited to:

- Crawler and rubber-tire tractors including dozers, push and pull tractors, winch tractors, and mowers;
- Off-highway self-propelled pneumatic-tire earth movers such as trucks, pans, scrapers, bottom dumps;
- Motor graders;
- Water tank trucks having a tank less than the cab; and,
- Other self-propelled construction equipment such as front end loaders, backhoes, rollers and compactors.

Mobile equipment left unattended at night next to a highway or active construction site shall have lights or reflectors to identify the location of the equipment.



Mobile equipment shall be equipped with windshield wipers, defogging/defrosting equipment and, mirrors to be able to observe personnel on all sides, back, and front of the vehicle in accordance with the manufacturer's requirements and shall be in working order.

Vehicles with dump bodies shall be equipped with positive support, permanently attached and capable of being locked in a position to prevent lowering of the body while maintenance or inspection work is being done.

Vehicles transporting material, soil, equipment, etc. shall be secured and/or covered to prevent displacement.

Vehicles shall be equipped with required lighting to illuminate the working area and emergency rotating/strobe lighting as required by the applicable laws and regulations for both on and off road use.

Mobile Equipment shall be equipped with at least one multipurpose fire extinguisher, approved reflective triangles, and mud flaps.

7.4 Loading and unloading

Work areas shall be arranged as to prevent unnecessary backing of vehicles.

Loads shall be properly secured to prevent displacement while transporting equipment and material to the DF Project and while on-site waiting loading and unloading.

Vehicles being loaded or unloaded by means of a forklift or manually shall be secured from movement by wheel chocks or other positive means.

Operators are not permitted to remain in the vehicle during loading and unloading operations unless the equipment is designed to allow the operator to operate the controls on the vehicle as specified by the manufacturer.

No vehicle shall be loaded beyond its safe working capacity.

Mobile equipment shall be loaded and unloaded in areas protected from passing traffic, pedestrians and overhead hazards.

Operators that load or unload material and equipment shall be qualified in all loading and unloading procedures and rigging required to handle all material and equipment.



Vehicles transporting hazardous materials and/or compressed gas cylinders shall be properly placarded and the operator of the vehicle licensed to transport, deliver, load and unload the hazardous material.

7.5 Flaggers/Signalers

All construction activities outside the property limits shall comply with all Federal, State and local traffic control laws and regulations requiring the use of flaggers/signalers.

For all construction activities at the DF Project, a risk assessment shall be performed by DF and our subcontractors to identify the need for flaggers/signalers utilizing the task hazard analysis form based on exposures to pedestrian and vehicle movements to prevent impact on workers, property and the environment in accordance with the sites traffic control plan and DF's health and safety plan.

Flaggers/Signalers shall wear high visibility clothing (ANSI type 2 or 3 garment) and PPE based on the field conditions and traffic flow and be competent in the requirements of proper flagger/signaler techniques.

Flaggers must be trained/certified in accordance with California Manual of Uniform Traffic Control Devices (CA-MUTCD) Chapter 6E.01.

7.6 Vehicle Traffic Control Planning

Vehicle routes shall be identified and marked to permit all employees and vehicles to safely enter and exit the work area.

All work areas shall be identified with posted speed limits and shall be adhered to at all times.

All work areas both on and off the DF Project property shall be surveyed prior to the commencement of construction activities to identify all aboveground utilities and all other structures that may be encountered and measures taken to protect the vehicle from contacting the utility or structure.

Clearances of overhead utility lines shall be maintained in accordance with DF's 'Electrical Systems and Control of Hazardous Energy Standard (Lockout/Tagout)' Standard to include electrical, telephone, cable and other lines during vehicle operations and these lines are to be protected in accordance with the regulations in the event there is contact.

Separating traffic from work activities by the use of temporary traffic barriers, shadow vehicles with truck mounted attenuators or similar devices shall be required to include but limited to:



- Traffic speed and volume
- Distance between workers and traffic
- Duration and type of work operations
- Physical hazards present in the work zone
- Alignment of traffic lanes through the work zone

7.7 Training

All workers operating, inspecting and maintaining Mobile Equipment shall be trained and qualified. Workers shall be trained but not limited to the following:

- Applicable Federal, State and Local licensing requirements
- Manufacturer's and company maintenance and inspection requirements prior to and during use
- Safe operating procedures
- Use of required equipment designed to protect workers and others while equipment is in parked or in operation to include seat belts, backup alarms, barrier protection during operation, etc.
- Material handling and equipment requirements to include proper rigging and lifting techniques during operating
- Intended use and limitations and site specific requirements contained in the SSHASP for the project;
- Hands-on training and practical demonstrations;
- Specific requirements for the operation of an industrial forklift, certification and retraining; and
- Overview of OSHA's motor vehicle and mobile equipment requirements and all applicable state, local, DF policies and procedures.

8. Fall Protection



As a general rule for construction, the fall protection threshold height requirement is 6 feet for all work covered by this standard, except as specified herein or within other DF EHS technical standards. The Fall Protection Program Administer has been identified as **Gordon White** of DF. The Qualified Person for this section is TBD.

8.1 Controlled Access Zones (CAZs)

The use of a CAZ as fall protection is prohibited on the DF Project unless a Qualified Person can demonstrate the use of fall prevention or fall arrest systems is infeasible.

8.2 Guardrail Systems

- Each guardrail system shall have a top rail, mid rail, and a toe board in accordance with CCR Title 8 section 1620.
- The following heights shall be applied to guardrail systems:
 - Top rail = 42 – 45 inches.
 - Mid rail = 21 inches
 - Toe board = minimum of 4 inches
- Guardrail systems shall be capable of supporting, without failure, 200 pounds in any outward or downward direction.
- When the 200 pounds is applied in a downward direction, the top edge of the guardrail shall not deflect to a height less than 42 inches.
- Mid rails, screens, mesh, intermediate vertical members, solid panels, and equivalent structure members shall be capable of withstanding, without failure, a force of at least 150 pounds in any outward or downward direction.
- Guardrail systems shall be surfaced to prevent injury to employees from punctures or lacerations, and to prevent snagging of clothing.
- When wire rope guardrails are used, they shall be at least 3/8 inch and flagged at intervals of no more than 6 feet.



- When guardrail systems are used around holes used as points of access (e.g., ladder ways), they shall be provided with a gate or be offset so persons cannot walk directly into the hole.
- When guardrail systems are used at hoisting areas, a chain, gate, or removable guardrail section shall be placed across the access opening between guardrail sections when hoisting operations are not taking place.

8.3 Covers

- A cover shall be provided for any hole greater than 2 inches in its least dimension, on a walking or working surface (e.g., a floor, roof, or other opening).
- Covers shall be capable of supporting, without failure, at least twice the weight of the worker, equipment, and material combined.
- Covers shall be secured when installed and clearly marked with the word "HOLE" or "COVER."
- When a hole cover is removed to facilitate the transfer of material, a guardrail system shall be provided along all unprotected sides or edges, or workers shall use a personal fall arrest system (PFAS).

8.4 Safety Net Systems (If Applicable)

- Safety net systems shall be in compliance with CCR Title 8 section 1671.
- The use of safety nets as a sole form of fall protection on the DF Project is prohibited unless a Qualified Person can demonstrate the use of fall prevention or PFAS is infeasible.
- Copies of safety net load tests shall be maintained at the DF Project.

8.5 Personal Fall Arrest Systems (PFASs)

- PFAS shall be ANSI Z359 compliant.
- When PFAS are used as fall protection, only employees who are qualified through training to use such equipment shall be permitted to do so.
- PFAS equipment shall be inspected by the user prior to each use. A Competent Person shall inspect PFAS equipment at least monthly; this inspection shall be documented and maintained at the site.



- Defective or damaged equipment shall be immediately removed from service.
- PFAS equipment shall be used, maintained, and stored in accordance with the manufacturer's instructions and recommendations.
- PFAS equipment consists of a full body harness, connecting means, and an anchorage system.
- Anchorage points must be capable of supporting 5,000 pounds per attached employee.
- PFAS shall be rigged so workers can neither free fall more than 6 feet, or contact any lower level or other physical hazard in the path of the fall.
- PFAS shall stop the fall within a maximum deceleration distance of 3.5 feet.
- All lanyards shall be shock absorbing with a locking snap hook.
- A Qualified Person must approve the use of PFAS for employees with a combined body and tool weight exceeding 310 pounds.

8.6 Lifelines

- Horizontal lifelines shall be designed, installed, used, and maintained under the supervision of a Qualified Person as part of a complete PFAS.
- Job-fabricated horizontal lifelines may only be utilized where designed, installed, used, and maintained under the supervision of a licensed Professional Engineer.
- The design shall include drawings, required clearance, and instructions on proper installation, use procedures, inspection and maintenance requirements.
- A complete and current copy of the design shall be kept on site as long as the system is in use. The design documents shall be available on site for review.
- Horizontal lifelines shall be designed to support twice the maximum force of a potential fall for each employee attached.
- Vertical lifelines shall have a minimum breaking strength of 5,000 pounds and be protected against cuts and abrasions.
- Only one employee at a time may be tied off to a vertical lifeline.



- Self-retracting lifelines (SRLs) shall limit the free fall distance to 2 feet and shall be rated to 350 pounds.

8.7 Scaffolds, Aerial Lift Equipment, and Moveable Work Platforms

- Fall protection related to scaffolds shall be in accordance with DF's SSHASP.
- A personal fall arrest system and 100% tie-off are required for all persons using aerial lifts.

8.8 Safety Monitoring Systems

- If a Qualified Person can demonstrate a safety monitoring system is the only feasible fall protection to control the hazards of the task, a job hazard analysis (JHA) specific to the task being performed shall be prepared. Demonstration through the process of elimination as stated in CCR Title 8 section 1671.1
- The JHA shall identify the Competent Person for fall protection.

8.9 Warning Line Systems

- When warning line systems are utilized, they shall be positioned at least 6 feet away from the leading edge.
- The warning line consists of a barrier of rope, wire, chain, or other suitable material. Plastic "CAUTION" or "DANGER" tape cannot be used as a warning line.
- Warning line systems shall be 36 inches high with support stanchions capable of resisting a tipping force of 16 pounds.
- The barrier must be flagged with highly visible material positioned at intervals of no more than 6 feet.

8.10 Rescue Plan and Procedures

- Emergency rescue provisions shall be considered and developed into a rescue plan for all tasks requiring fall protection; the plan shall be provided in the associated Job Hazard Analysis (JHA).
- The rescue plan must provide prompt rescue of personnel in the event of a fall.



- Employees using PFASs shall utilize the “buddy system,” working with someone within visual/verbal range who will initiate rescue of a fallen employee if required.

8.11 Working Over or Near Water

- Any time work is to take place over or near water, a JHA shall be prepared specific to the hazards of the task being performed. Emergency response and rescue procedures shall be specifically identified as part of the JHA.
- The JHA shall identify the Competent Person for fall protection.
- Personal floatation devices (PFDs) are required for all work over or near water, except when:
- 100% fall protection is used to prevent the employee from falling into the water; or
- The horizontal distance of the walking/working surface to the potential fall into water is 25 feet or more.

8.12 Training

Workers exposed to fall hazards requiring the use of fall protection equipment must be in accordance with ANSI Z-359-2 and documented in the associated JHA. Documentation of training shall be maintained at the DF Project and made available for review upon request. Workers shall be trained on the following:

- The nature of fall hazards in the work area;
- The correct procedures for erecting, using, dismantling, maintaining, and storing fall protection equipment;
- The application limits, free fall distance, total fall distance, and clearance requirements of fall protection equipment;
- Rescue equipment and procedures;
- Hands-on training and practical demonstrations; and
- An overview of OSHA’s fall protection requirements.



9. Roadway Worker Protection Program

An on-track safety program shall include procedures for conducting and participating in a safety briefing before beginning work and when work or job conditions change. Before any roadway worker fouls a track, the designated person providing on-track safety for the group shall ensure that a job safety briefing is held. Additional job safety briefings shall be held anytime the job conditions change during the work period. Such information shall be given to all affected roadway workers before the change is effective. Emergency situations do not relieve the requirement for on-track safety briefings. All workers shall attend a Contractor Safety Orientation prior to entering the railway work area. Workers must be badged and their badges visible at all times. The Worker Protection Program shall comply with 49 CFR part 214 subpart C.

The Daily Briefings shall include, at a minimum, the following items:

- A discussion of the general work plan.
- Information on the means by which on-track safety is to be provided for each track identified to be encroached upon.
- Identification and location of key personnel, such as the Qualified Protection Employee (QPE), watchperson/lookout, etc.
- Existing or potential hazards, including ways to eliminate or protect against those hazards.
- Information about any tracks adjacent to the track to be encroached upon, on-track safety for such tracks, if required, and identification of any roadway maintenance machines that will work on or near the tracks. In such cases, the on-track safety briefing shall address the nature of the work to be performed and the characteristics of the work location.
- Means of communication to be used at the site.
- Method of train approach warning
- An On-site Safety Action Plan will be developed and reviewed prior to the commencement of any work.

All roadway workers involved in the work shall be included in the job safety briefing.



A job briefing for on-track safety shall be deemed complete only after all roadway workers have acknowledged an understanding of the on-track safety procedures and instructions presented.

9.1 Working limits

The on-track safety program shall provide procedures to establish working limits that afford on-track safety to roadway workers. Working limits established under any procedure shall conform to the following provisions:

- Only a roadway worker who is qualified in accordance with the railway rules shall establish or have control over working limits for the purpose of establishing on-track safety.
- Only one roadway worker shall have control over working limits on any one segment of track.

All affected roadway workers shall be notified before working limits are released for the operation of trains. Working limits shall not be released by the QPE until all affected roadway workers either have left the track or have been afforded alternate means of on-track safety in accordance with the rules of the railway .

- Equipment, materials, or machinery shall not be stored within the working limits.
- The following temporary clearances must be maintained during construction activities:
 - 15'-0" Horizontally from centerline of nearest track
 - 21'-6" Vertically above top of rail
 - 27'-0" Vertically above top of rail for electric wires carrying less than 750 volts
 - 28'-0" Vertically above top of rail for electric wires carrying 750 volts to 15,000 volts.
 - 30'-0" Vertically above top of rail for electric wires carrying 15,000 volts to 20,000 volts.
 - 34'-0" Vertically above top of rail for electric wires carrying more than 20,000 Volts.
- Upon completion of construction the following clearances shall be maintained.



- 25' horizontally from centerline of nearest track.
 - 23' 6" Vertically above top of rail.
- Temporary crossings must be gated and locked at all times when not required for use by the construction activities.

10. Hazard Communication

10.1 Training

Employees shall be provided with information and training on hazardous substances used in their work area at the time of their initial assignment, and whenever a new physical or health hazard is introduced into their work area. Information and training may be designed to cover categories of hazards (e.g., flammability, carcinogenicity) or specific chemicals. Chemical-specific information must always be available through labels and safety data sheets (SDSs). At a minimum, training must include the following:

- Requirements of OSHA's Hazard Communication Standard, as found in CCR Title 8 section 5194;
- The location of hazardous substances present in the work area;
- The physical and health hazards of the substances in the work area;
- Methods and observations that may be used to detect the presence or release of a hazardous substance in the work area;
- Measures employees can take to protect themselves from these hazards;
- Availability/location of SDSs and DF's written Hazard Communication Program (HCP); and
- The labeling system in use in the work area.

DF shall be responsible for informing their employees of any physical or chemical hazards associated with non-routine tasks. DF is also responsible for providing employees with the proper personal protective equipment (PPE) needed to safely perform the task.

10.2 Written Hazard Communication Program



Each subcontractor shall have a written HCP that meets the requirements of Cal/OSHA standard), CCR Title 8 section 5194. The written HCP shall be maintained on the DF Project and available to personnel for review. The written HCP shall address the following information:

- Name of the person responsible for implementing and maintaining the program;
- Inventory of hazardous substances including quantities and location where inventoried substance will be stored;
- Methods for ensuring proper labeling of containers;
- Methods for obtaining and maintaining SDSs;
- Procedures to ensure employees are trained initially, and periodically when use of hazardous substances is altered or modified; and
- Methods used to inform employees of the hazards of non-routine tasks, and the hazards associated with substances contained or stored their work areas.

10.3 Multi-employer Workplaces

Subcontractors who produce, use, or store hazardous substances to which employees of other subcontractors may be exposed shall additionally ensure that the HCPs developed and implemented include the following:

- The methods used to provide the other subcontractors on-site access to SDSs for each hazardous substance to which the other subcontractors' employees may be exposed;
- Methods that will be used to inform the other subcontractors of any precautionary measures necessary to protect employees during normal operating conditions and in foreseeable emergencies; and
- Methods the subcontractor will use to inform the other subcontractors of the labeling system.

10.4 Hazardous Substance Inventory

Each subcontractor is responsible for conducting a hazardous substance inventory to determine the hazardous substances present in their work area. The inventory shall be initiated at the start of the project and updated as necessary. Each product or substance identified on the inventory form must have an SDS. Hazardous substance inventories shall be compiled by DF on a monthly basis.



As a minimum, the inventory shall include:

- Product name;
- Quantities (gallons, pounds); and
- Locations of used or stored substances, a map showing storage locations.

10.5 Safety Data Sheets

- DF shall maintain copies of the required SDSs for each hazardous substance at our project, and shall ensure that they are readily available to employees in their work areas. (Electronic access and other alternatives to maintaining paper copies of the SDSs are permitted as long as there are no barriers to immediate employee access).
- SDSs for hazardous substances shall be maintained at the DF jobsite for the duration of the project and shall be periodically updated as new SDSs are received.
- DF shall maintain copies of SDSs received with incoming shipments of the hazardous substances, shall obtain an SDS as soon as possible for hazardous substances received without an SDS, and shall ensure that the SDSs are readily available to employees.
- Copies of SDSs shall be made available to all project employees upon request.
- SDSs shall be maintained and stored in a location that can be easily accessed by emergency responders.
- Copies of SDSs shall be provided to DF once a hazardous substance has been brought onto the project.

10.6 Labels

- Containers labeled by their suppliers do not require relabeling unless the label becomes illegible.
- Each container of hazardous substances at the DF Project must be labeled, tagged, or marked with the identity of the hazardous substance and the appropriate hazard warnings (or words, pictures, symbols, or a combination thereof), to provide employees with specific information regarding the physical and health hazards of the hazardous substances.



- When material is transferred to another container that container shall be labeled in accordance with DF's labeling scheme.
- Where a permanent tank, vat, vessel, or other container is filled with a hazardous substance, it shall be immediately labeled.

10.7 Spill Response

- Assess the area for any immediate dangers to health or safety (i.e. a damaged truck leaking fuel from side tank). If any dangers are present, move away from the area, call 911.
- Notify the primary and/or secondary contact from the list above and then continue your spill response. The primary contact should assess additional notification requirements (i.e. notify project RE and see Spill Reporting below).
- Retrieve the spill kit from the closest location.
- Assess the size of the leak and any immediate threat of the spill reaching the floor/storm drains or permeable surfaces in the area. If there is an immediate threat and there are no safety concerns, then attempt to block the spill from coming in contact with the floor/storm drain or permeable surface. If no drain covers are available, then try to use absorbent (cat litter) and/or sock booms or rags to stop the spill from getting into the drains or to any permeable surfaces.
- If the spill can be contained with absorbent booms, deploy them around the spill. Use the booms to direct the spill away from any immediate hazards (i.e. a wrecked car).
- If there is no immediate threat to the floor/storm drains or permeable surfaces, or after controlling the spill, try to plug or stop the leak, if possible. If applicable, put on protective gear (gloves, goggles, protective clothing, etc.) and plug the leak.
- Once the spill has been contained and any immediate threat to storm drains or permeable surfaces has been minimized, contact the spill cleanup contractor and dispatch them to clean up the spill or commence spill cleanup procedures. Hazardous wastes must be transported only by California Registered Hazardous Waste Transporters to a State-permitted treatment, storage, or disposal facility (TSDF). These transporters are registered by the California Department of Toxic Substances Control and California Highway Patrol. Hazardous waste must be packaged and labeled for transport in accordance with applicable Department of Transportation regulations. Hazardous waste transported for disposal or treatment must be accompanied by a Uniform Hazardous Waste Manifest form. As a generator of hazardous waste, you are responsible and



liable for the wastes you generate. Accurately completing a manifest form ensures that you will receive notice after the wastes have been delivered to the licensed hazardous waste facility. It also is required to meet your responsibility as a hazardous waste generator.

10.8 Non-Routine Tasks

- When non-routine tasks are performed, a job hazard analysis (JHA) shall be prepared to identify the hazards involved in the tasks and the measure employees must take to protect themselves from the hazards.
- As appropriate, the SDSs shall be attached to the JHA.

11. Electrical System and Control of Hazardous Energy (Lockout/Tagout)

(In accordance with CCR Title 8 Subchapter 5, Electrical Safety orders)

11.1 Electrical Systems

11.1.1 Overhead/Underground Clearances

- Signal or flag employees must guide cranes, cherry pickers, high lifts, and other equipment in transit near exposed energized lines or parts at all times.
- All underground utilities/lines shall be located and protected from damage or displacement.
- Work activity adjacent to overhead and underground lines shall not be initiated until a survey has been made to ascertain the safe clearance from energized lines.
- Overhead utility lines shall be considered energized unless the person owning such line, or operating officials of the electrical utility supplying the line, certifies that it is not energized and it has been visibly grounded and tested.
- Work activity that could affect or be affected by overhead or underground lines shall not be initiated until coordinated with the appropriate utility officials.

- Where overhead lines cross the DF Project or access roads, signs shall be posted to indicate the presence of overhead lines.

11.1.2 Guarding Live Equipment

Live parts of wiring or equipment shall be guarded to protect against contact by employees or objects. Areas where high voltage equipment is located shall be identified, secured, and protected against unauthorized contact. Enclosure gates or doors shall swing outward and provide clearance from energized equipment.

11.1.3 Temporary Wiring, Panels, and Lighting

Temporary wiring shall be removed immediately upon completion of construction or completion of the purpose for which the wiring was installed. Where temporary wiring is configured so that cabinets or equipment enclosures cannot be closed, they shall be protected against accidental contact.

11.1.4 Grounding/Ground Fault Circuit Interrupters (GFCIs)

- The use of an assured grounding program at the DF Project is prohibited as the sole means of grounding protection.
- Receptacle outlets that provide temporary electrical power during construction, remodeling, maintenance, repair, or demolition shall have GFCI protection for employees.
- GFCI protection shall be provided on all circuits serving portable electric hand tools or semi-portable electric power tools (i.e., block/brick saws, table saws, air compressors, welding machines, and drill presses).
- All circuits shall be adequately grounded.

11.1.5 Overcurrent Protection

- All circuits shall be protected against overload.
- Overcurrent protection shall be based on the current-carrying capacity of the supplied conductors and the power load being used.
- Overcurrent protection devices shall be readily accessible, clearly labeled, and protected against physical damage.



- Overcurrent protection devices shall be located or shielded so that their operation will not expose employees to injury due to arcing or the sudden movement of parts.
- Circuit breakers shall clearly indicate whether they are in the open (de-energized/off) or closed (energized/open) position.

11.1.6 Disconnects and Switches

- Disconnecting means shall be located or shielded so that employees will not be injured when a disconnect is performed.
- Enclosures for disconnecting means shall be securely fastened to the surface and fitted with covers.
- Switches, fuses, and automatic circuit breakers shall be marked, labeled, or arranged for ready identification of the circuits or equipment they supply.
- Switches, circuit breakers, fuse panels, and motor controllers located outdoors or in wet locations shall be in weatherproof enclosures or cabinets.

11.1.7 Cords, Cables and Electrical Wire

- Extension cords shall be inspected by the user prior to use.
- Extension cord sets shall contain the number of conductors required for the service, plus an equipment ground wire.
- Extension cords shall be heavy usage type.
- Extension cord and electric wire passing through work areas shall be protected from damage and clearly marked. All cords and wires placed on walking and working surfaces shall be provided with a protective covering or ramp to prevent personnel and equipment from contacting or damaging the cord or wire
- Extension cords or cables shall be supported in place at intervals that ensure they will be protected from physical damage. To prevent damage, support shall be from cable ties, straps, or similarly installed equipment. Extension cords or cables shall not be hung from nails or suspended by bare wire.



11.1.8 Electric Tools

Before each day's use, electric tools shall be inspected for improper grounding, cracked housings, damaged cords, non-standardized connectors, and any other electrical problems. Damaged tools and cords shall be removed from service immediately. Only Qualified Persons shall make repairs, including inspections for continuity and grounding.

11.1.9 Hazardous (Classified) Locations

Performance of hot work in hazardous (classified) locations requires a written job hazard analysis (JHA). All equipment, wiring methods, and installations of equipment in hazardous (classified) locations shall be listed for the hazardous (classified) location in which the equipment is being used.

11.2 Lockout/Tagout (LOTO)

- Systems with energy-isolating devices that are capable of being locked out shall be locked out. Solely using tags as a form of hazardous energy control shall be subject to DF approval.
- LOTO shall only be performed by authorized employees in accordance with CCR Title 8 Subchapter 5, (Electrical Safety Orders).
- Affected employees shall be notified before and upon completion of the application and removal of locks or tags.
- Written energy control procedures (ECPs) shall be developed for all pieces of equipment supplied by more than a single source of energy that cannot be completely deactivated or de-energized from locking out a single energy source.
- ECPs shall be prepared by Qualified Persons.
- Prior to de-energization and DF acceptance of equipment, it shall be determined whether ECPs already exist.
- Hazardous energy sources shall be considered energized until the sources of energy are removed, locked out, and verified as being de-energized.
- Locks and tags must be capable of withstanding the environment to which they are exposed, for the expected duration of exposure.
- Locks and tags shall identify the individual applying the device.



- Locks and/or tags must identify the Subcontractor of the individual employee applying the lock.
- Locks may be color-coded or tagged to identify the Subcontractor. Color-coding shall comply with all DF specific programs and shall be coordinated between all subcontractors on site.
- Administrative locks may be used to prevent operation of equipment prior to acceptance or release. Administrative locks may not be used for the control of hazardous energy. Administrative locks must be clearly identifiable by color and/or tagging. Administrative locks may be group/master keyed and/or have supervisory/administrator keys.
- Authorized employees shall ensure that all energy-isolating devices needed to control energy to or within the system are identified and that the system is shut down, isolated, blocked and secured.
- Following the application of locks or tags to energy-isolating devices, all potentially hazardous stored or residual energy shall be relieved, disconnected, restrained, discharged or otherwise rendered safe.
- Prior to the removal of locks or tags, the work area shall be inspected to ensure that all non-essential items (e.g., tools and materials) have been removed from the system, the system components are operationally intact, and all employees have been safely positioned or removed from the area.
- All affected employees shall be notified that the locks or tags are about to be removed.
- When part of a group LOTO, each authorized employee shall affix a personal lockout or tagout device to the group lockout device, group lockbox, or comparable mechanism when he or she begins work and shall remove those devices when he or she stops working on the electrical circuit conductor or equipment being serviced or maintained.
- DF shall be notified prior to the removal of a lock or tag any time an individual is not available to remove the lock or tag that he or she applied.

11.3 Arc Flash

11.3.1 Electrical Safety Work Practices

- Working on live energized electrical equipment is prohibited unless a Qualified Person has determined that energy isolation is infeasible to accomplish the necessary work task.



- Only Qualified Persons shall perform tasks such as testing, troubleshooting, and voltage measuring within the limited approach boundary of energized electrical conductors or circuit parts operating at 50 volts or more.
- If a Qualified Person has determined that energy isolation of energized electrical equipment greater than 50 volts is infeasible, the Qualified Person shall prepare a JHA and conduct a pre-job briefing
- The JHA for working on live energized electrical equipment shall identify the work practices to be implemented, safe working distances, required personal protective equipment (PPE), and evidence of completion of a pre-job briefing.

11.3.2 Minimum Voltage Boundary-Arc Flash Analysis

Whenever it is necessary to work on energized electrical equipment greater than 50 volts, the flash protection boundaries, approach distances, hazard/risk categories, and PPE requirements shall be identified in accordance with the tables provided in National Fire Protection Association (NFPA) 70E, unless an arc flash hazard analysis specific to the equipment being worked on has been performed.

11.3.3 Personal Protective Equipment (PPE) and Tools

- Arc flash protection shall be provided for any person who enters the flash protection boundary.
- PPE requirements for specific hazard risk classifications shall be in compliance with NFPA 70E.
- Synthetic clothing such as acetate, nylon, polyester, and rayon, either alone or in blends with cotton, may not be worn while in the flash protection zone except for cotton or man-made clothing designed for exposure to an electrical flash (i.e. FR cotton or Nomex).
- PPE shall be properly worn.
- Long sleeves must be rolled down and buttoned, shorts are prohibited, and trousers shall extend the full length of the leg.
- Garments with exposed metallic fasteners shall not be worn.
- Garments, including full body safety harnesses, worn over arc flash rated protective clothing must be rated for such use.

11.3.4 Labeling and Signage



Arc flash signage and labeling must be placed on electrical energized equipment. Switchboards or panel boards likely to be accessed with covers on are required to have labels warning of potential electrical arc flash hazards and required PPE.

11.4 Training

Workers exposed to electrical hazards must be trained to the level to which they may be exposed.

11.4.1 Authorized Employees

An authorized employee is an individual who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment. Each authorized employee shall be trained to recognize applicable hazardous energy sources, the types and magnitude of the energy available, and the methods and means necessary for energy isolation and control.

11.4.2 Affected Employees

An affected employee is an individual whose job requires him or her to operate or use a machine or equipment on which maintenance, servicing, or construction is being performed under LOTO, or whose job requires him or her to work in an area in which such servicing or maintenance is being performed. An affected employee becomes an authorized employee when that individual's duties include performing servicing or maintenance of equipment being de-energized. Affected employees shall receive training in the following:

- The prohibition relating to attempts to restart or re-energize machines, equipment, or circuits that are locked or tagged out.
- Basic electrical hazards and precautions required to avoid injury at construction sites.

11.4.3 Training Documentation

DF shall maintain training documentation at the Project site. The training documentation shall identify each employee and his or her level of training (i.e., Qualified Person, authorized employee). For electrical activities, qualified persons must have verifiable credentials consisting of national, state, and/or local certifications or licenses of a master or journeyman electrician.

12. Fire Protection



12.1 General Precautions Against Fire

- Flammable liquids with a flash point below 100°F shall not be used for cleaning purposes without DF acceptance.
- A hot work permit is required for any work involving burning, welding, heating, or spark producing tools that are capable of initiating fires. Hot work shall be in compliance with DF's EHS Standard for Hot Work.
- Combustible waste within buildings shall be stored in appropriate noncombustible containers or areas designated for the storage of that waste type. Otherwise combustible waste may not be accumulated within buildings and shall be removed from buildings as the work progresses but in no case later than the end of the work shift.
- Igniting or maintaining an open fire at the DF Project is prohibited.
- Materials susceptible to spontaneous ignition, such as oily rags, shall be stored in a container designed for such use.
- DF sheds and offices located within 30 feet of new construction or existing buildings shall be made of metal or other noncombustible materials.
- Equipment powered by internal combustion engines shall be positioned to direct exhaust away from combustible materials.
- Temporary structures (i.e., shanties), when located within another building or structure, shall either be constructed of noncombustible materials, or of combustible materials having a fire resistance of no less than 1 hour.
- Adequate clearance shall be maintained around lights and heating units to prevent ignition of combustible materials.
- All electrical equipment and installations in hazardous (classified) locations shall be in accordance with the National Electrical Code (NEC) for hazardous (classified) locations.
- Smoking is allowed in designated smoking areas only.

All personnel shall be provided and have access to the correct name and address of DF and emergency contact information. A hard-wired telephone, cellular phone with reliable coverage, or other approved clearly identified method to notify the local emergency services shall be provided.



12.2 Fire Reporting and Alarms

The EAP shall be initiated in case of fire. Each site shall have a site specific plan. The On-Site Emergency Response Worksheet shall be posted and the location of the EAP and the Worksheet shall be presented to all employees and visitors during the orientation process.

12.3 Means of Egress and Elevators

- Adequate means of egress shall be maintained during construction, alteration, and demolition.
- Exits shall be marked by a readily visible sign.
- Exits and exit discharge points shall be free of all obstructions or impediments.
- Fire walls and exit stairways, if required for the completed buildings, shall be given construction priority. Fire doors, with automatic closing devices, shall be hung on openings as soon as practicable
- Fire doors shall not be blocked or wedged open and must remain closed at all times.
- Material shall not be stored within 36 inches of a fire door opening.
- All trailers, shanties, and personnel sheds are to be equipped with a fire extinguisher and smoke detectors.
- Elevators shall not be used in the event of a fire.

12.4 Water Supply for Fire Protection, Standpipes, and Sprinkler Systems

- Fire lanes providing access to all areas shall be established and kept free from obstructions. Vehicles, equipment, materials, and supplies shall not impede access to fire hydrants or other firefighting equipment. Existing fire lanes will not be blocked except where replacement lanes are first established and accepted.
- A water supply or other acceptable means of fire protection, either temporary or permanent, shall be made available prior to hazardous or combustible materials arriving at the site.
- Any water source intended for firefighting operations, including standpipe outlets, street hydrants, and yard hydrants, shall not be used for construction, alteration, or demolition purposes, unless accepted by DF.



- Permanent (fixed) extinguishing equipment and a water supply for fire protection shall be installed in an operable condition as soon as practicable.
- During demolition or alterations, existing automatic sprinkler systems shall be maintained in service as long as reasonable.
- Clearance of at least 18 inches shall be maintained between the top level of the stored material and the sprinkler deflectors.
- DF shall be given at least 24-hour advance notice prior to impairment of sprinkler systems, standpipes, or other fire protection devices.

12.5 Housekeeping and Storage

- Combustible materials shall be piled with regard to the stability of piles and in no case higher than 20 feet.
- Storage areas shall be kept free from accumulation of unnecessary combustible materials.
- Weeds and grass shall be cut down and a regular procedure provided for periodic maintenance.
- No combustible materials shall be stored outdoors within 10 feet of a building or structure. Piling methods shall be solid wherever possible, and in orderly and regular piles.
- Incompatible materials, which may create a fire hazard, shall be segregated by a barrier having a fire resistance of at least 1 hour.
- Incidental spills of flammable or combustible materials shall be immediately reported and remediated.

12.6 Portable Fire Extinguishers

- Buildings or structures under construction, alteration, or demolition shall be provided with at least one approved portable fire extinguisher (not rated less than 2A) as follows:
- At each stairway on all floor levels where combustible materials are being stored or combustible waste is being generated;
- At the entrance of each storage and construction shed;
- Where flammable and combustible liquids are stored, handled, and used; and



- Where hazardous and nonhazardous wastes are stored;
- At least one in each in each trailer, shanty, and employee shed.
- Access to all available firefighting equipment shall be maintained at all times.
- All firefighting equipment shall be periodically inspected and maintained in operating condition.
- Defective equipment shall be immediately replaced.
- Travel distance from any point of the protected area to the nearest fire extinguisher shall not exceed 100 feet.
- A fire extinguisher, rated not less than 10B, shall be provided within 50 feet of wherever more than 5 gallons of flammable or combustible liquids or 5 pounds of flammable gas are being used (not including integral fuel tanks of motor vehicles).
- Portable fire extinguishers shall be inspected monthly and serviced at least yearly.

12.7 Portable Fueled Space Heaters (If Applicable)

- Portable fueled space heaters shall not be used for purposes of human comfort or any other purpose other than construction-related curing and drying or utilizing a flammable liquid as a fuel.
- Portable fueled space heaters shall be shut down and deemed cool to the touch before refueling.
- Portable fueled space heaters shall be fixed in place and protected from overturning, movement, or damage.
- Heaters used in the vicinity of combustible tarpaulins, canvases, or similar coverings shall be located at least 10 feet from the coverings. The coverings shall be securely fastened to prevent ignition or upsetting of the heater due to wind action on the covering or other material.

12.8 Flammable and Combustible Liquids

- All sources of ignition shall be prohibited in areas where flammable and combustible liquids are stored and handled.



- Adequate ventilation shall be provided for operations involving the application of materials containing flammable solvents.
- Flammable and combustible liquid storage areas shall be maintained clear of vegetation and combustible waste.
- Flammable and combustible liquids shall not be stored in areas used for exits, stairways, or safe passage of employees.
- Flammable and combustible liquids shall be kept in approved safety containers except for bulk shipments. Only Type I or Type II safety containers shall be used. All safety containers shall be equipped with a dispensing funnel or hose, and each container shall be clearly labeled.
- Leaking containers shall be immediately repaired or taken out of service.
- Drums containing flammable liquids shall be grounded when in use. Each drum shall be equipped with a self-closing faucet and a bung vent. Appropriate controls shall be positioned below each drum faucet to catch drips.
- Containers of flammable liquids shall be grounded and be provided with a bonding wire for interconnecting between containers during material transfer.
- Provide secondary containment for all flammable and combustible liquids in closed containers greater than 5 gallons; all open containers require secondary containment (with capacity to contain 110% of largest container.)
- The indoor storage of flammable and combustible liquids shall be limited to 25 gallons outside of an approved flammable storage cabinet within any single room. All liquids must be in approved containers.
- No more than 60 gallons of flammable or 120 gallons of combustible liquids shall be stored in any one storage cabinet. No more than three such cabinets may be located in a single storage area.
- Flammable and combustible materials shall be stored a minimum of 20 feet away from buildings and structures. The storage area shall be graded in a manner to direct possible spills away from buildings or other exposures, or shall be surrounded by a curb or earth dike at least 12 inches high. One portable fire extinguisher (20A:120B: C) shall be located within 10 feet of the storage area.



- A minimum 4-foot-wide aisle shall be provided between adjacent rack sections and any adjacent storage of liquids.

12.9 Flammable Gases and Oxygen

- Flammable gases and oxygen shall be stored in an outdoor location, in a secured cage protected from contact with the ground, ice, snow, water, salt, corrosion, and high-temperature sunlight.
- Compressed gas cylinders shall be protected from high traffic areas and areas where activities could damage the cylinders.
- Cylinders shall be stored away from doorways, aisles, elevators, and stairs, in clearly identified, dry, well-ventilated storage areas.
- Liquefied petroleum gas (LPG) gas shall be stored and filled at a minimum distance of 50 feet from the nearest building.
- Oxygen cylinders in storage shall be separated from flammable liquids, gases, and combustible materials (e.g., oil and grease) by a minimum distance of 20 feet or a noncombustible barrier at least 5 feet high having a fire resistance rating of at least one-half hour.
- Storage cylinders must be segregated into full or empty groups in racks or at locations for each category and shall be labeled "full," "in use," or "empty."
- Compressed gas cylinders shall be stored with protective caps in place except when the containers are in use or are being serviced or filled.
- All cylinders, whether full or empty, must comply with National Fire Protection Association (NFPA), or Department of Transportation (DOT) labeling requirements and OSHA Hazard Communication requirements. Contents of cylinders shall be readily identifiable. An SDS must be available for all gases and gas mixtures.
- Flammable compressed gas cylinders used inside buildings must be stored at least 20 feet from flammable and combustible liquids and easily ignited materials such as wood, paper, oil, and grease.
- Flammable gas cylinders, whether full or empty, must not be located near an exit or at any location that could block an exit.



- Signs shall be conspicuously posted in areas where flammable compressed gases are stored, and shall identify the substances and appropriate precautions (e.g., ACETYLENE- FLAMMABLE GAS - NO SMOKING - NO OPEN FLAMES).
- Cylinders containing flammable gases such as acetylene must not be stored in close proximity to open flames, areas where electrical sparks are generated, or where other sources of ignition may be present.
- Compressed gas containers shall be secured to prevent movement from contact, vibration, or seismic activity, utilizing one or more of the following methods:
 - Securing containers to a fixed object with one or more noncombustible restraints. Containers shall not be secured to plumbing systems or electrical conduits;
 - Securing containers on a cart or other mobile device designed for the movement of compressed gas containers; and
 - Securing of containers to or within a rack, framework, cabinet, or similar assembly designed for such use, except when the containers are in the process of examination, filling, transport, or servicing.
- Compressed gas containers shall not be placed near elevators, unprotected platform ledges, or other areas where the container could drop a distance exceeding one-half the height of the container.
- Compressed gas containers shall not be placed in areas where they are exposed to damage from falling objects.
- Compressed gas containers and systems shall not be located where they could become part of an electrical circuit. Compressed gas containers and systems shall not be used for electrical grounding.
- Compressed gas containers, except those designed for use in a horizontal position, and all compressed gas containers containing non-liquefied gases, shall be stored in an upright position with the valve end up.
- Containers shall be moved using an approved method. Where containers are moved by hand cart, hand truck, or other mobile device, such carts, trucks, or devices shall be designed for the secure movement of containers.



12.10 Small Arms Ammunition (SAA) for Powder-Actuated Tools

- The main store of SAA shall be kept in a locked metal box interlined with ½ inch of noncombustible insulating material.
- The SAA storage box shall be kept away from heat and shall not be stored in the same storage area or storage facility containing compressed gases or flammable liquids.
- The storage area or storage facility in which the SAA box is stored shall be identified by a permanent sign including the words "DANGER-AMMUNITION" in white letters on a red background.
- Powder-actuated tools shall not be used in a hazardous atmosphere.
- At least one portable fire extinguisher having a minimum 2A rating shall be provided in the area where SAA is stored.

13. Construction Site Safety and Security.

Personal safety and Site security is our primary commitments while working on CP 2-3. We will ensure that this commitment is first in all that we do to prevent job-related injuries/illnesses by providing safe and secure conditions during all construction activities. This will include the safety and security of all employees, the members of the public, who live, work or travel through the project work areas. All employees will receive a Safety/Security briefing during the initial orientation Onboarding. We will do this by incorporating following:

- Provide a safe and secure work environment for employees, contractors, emergency responders, third parties, and the public at large.
- Convey the DFJV Safety and Security policy statement to all subcontractors and their employees.
- Ensure compliance with the stated objectives and, requirements contained the Safety and Security Management Plan, the SSHASP, the SSSP, applicable laws and regulations.
- Implement and maintain a system of prompt identification, notification, investigation, and correction of security breaches and incidents.
- Manage all acquired properties with regards to safety and security by utilizing an inspection checklist to identify safety and security hazards throughout the project duration
- Ensure that the safety and security orientation takes place for all employees, and that security/identification badges are issued upon completion.



- Ensure that all visitors to the jobsites have a site orientation and that visitor identification badges are issued upon the completion the orientation. This badge must be worn at all times while on the jobsite.
- Establish a Security and Safety Committee that will meet periodically to discuss safety and security activities and make recommendations as needed.
- Utilize the Integrated Safety Management System, (ISMS), to accurately record jobsite safety and security data.

13.1 Security Management of Properties

The following steps shall be taken to ensure the safety and security of all properties that are transferred from the Authority to DFJV.

- Confirmation that the property has been grouped properly, (full or partial) and followed all property transfer requirements.
- Ensure that all keys or security systems codes have been transferred with the property.
- Confirmation that all utilities request for shutdown have been made.
- Verification of non-occupancy for residences.
- Confirmation that any required signage, (Danger, No Trespassing, Private Property, CICP, etc.) is properly posted.
- Verification that all properties are adequately secured (locked and boarded up).

After the above items have been confirmed the following steps shall be taken by the DFJV.

- Initial Site Safety/Security assessments of the entire property.
- Initial Safety/Security assessment of the neighborhood.
- Ensure that the property has proper access and egress.
- Confirm that the initial security measures identified in the assessment are in place.
- Establish a monitoring system to ensure that the security measures are adequate
- If security breaches are discovered during monitoring, reassess property with regards to increased security measures.
- All security breaches and corrective measures taken will be reported using the Integrated Security Management System, (ISMS).



13.2 Workforce Screening, Access/Security Badging Program

All employees of DFJV, Subcontractors, and visitors are required to have identification badges while on the project. The badging and workforce screening will take place during the orientation process. A photo ID card will be issued upon successful completion of the background screening and orientation process. All visitors to the site will have a Site Specific Orientation. Safety and security hazards associated with the site will be explained and limited access will be granted. The badges for employees and Subcontractors shall be available at all times for audit and inspection by the DFJV team or the Authority. The visitor badges will be turned back in when the visit is complete.

The Access/Security badges will have the following information included on them:

- Facial recognition capabilities, (photo).
- Employees Name.
- Employer's name.
- Badge Number.
- Date of issue.
- Status.
- Certification date.
- Safety Trainings/Orientation date.

Security and access control will be monitored through the badging system. The supervisors will have the ability to monitor the security system through remote readers on cell phones. The badges will have access limits associated on them so employees know where they can and cannot go on the work site. Any violations of safety/security regulations will be recorded and monitored through the ISMS program.

14. Emergency Action Plan

14.1 Emergency Action Plan Development

DF shall create an EAP Coordination Committee. All subcontractors shall be allowed to participate on the Coordination Committee. Subcontractors joining a project after development of the EAP shall be incorporated into the Committee.

Project staff shall initially write and review the project EAP.

The Project EAP shall be updated as necessary to incorporate any changes in construction activities that could affect the execution of the EAP in the event of an emergency.



The EAP shall be specific to a project/site specific.

All Subcontractors working on the project shall agree and sign on to the project EAP. Where differences between Subcontractors are incorporated they shall be documented in the EAP.

For activities that are limited in scope and duration, and the hazard assessment (see Hazard and Incident Assessment) indicates all planned work is adequately addressed by the existing facility EAP, DF may indicate that the existing EAP is adequate and will be complied with and serve as the activity EAP.

EAPs must, at a minimum, include the following items:

- Roles & Responsibilities
- Site Communication Methods
- Sirens, Alarms and Signaling Devices
- Program Review and Updating
- Hazard and Incident Assessment
- Evacuation Procedures and Accountability
- Muster Points
- Response Resource Evaluation
- Access Issues and control
- Drills and Exercises
- Training

14.2 Roles and Responsibilities

All personnel shall have a responsibility to understand and notify appropriate personnel when an emergency situation is discovered or observed.

DF shall maintain a system of employee sign-in, timecard, or some other method of maintaining a list of personnel present at the site, which can be used for accounting during an evacuation.

DF shall inform all visitors of alarms signals, muster points, checking-in responsibilities, and all other necessary elements of the project EAP as soon as those visitors are allowed on site. Visitors shall be provided a card, paper, or other written means of necessary EAP information.

DF shall be responsible to account for visitors during evacuations and shall maintain a visitor log that includes sign-in and sign-out, which shall be utilized for purposes of checking in visitors in case of an emergency.



Following any evacuation, DF shall immediately report the status of employee accountability, which includes following EAP drill activities.

DF shall be responsible for providing an individual to participate in the EAP development. DF is responsible for incorporating the risks and needs of their subcontractors within the EAP development.

DF shall identify at least one individual as their EAP coordinator to participate in emergency response activities when necessary.

DF may not release staff until all personnel are checked-in.

Site-Security shall be responsible for maintaining a log of vehicle entries/exits and driver information. This log shall be made available to DF for purposes of employee accountability/vehicle identification.

Site-Security shall be responsible for providing initial directions to all emergency resources upon arrival at the site.

Site-Security shall remain at their post, where possible, and maintain the security of the site.

During an incident no personnel shall be allowed to enter the area of incident unless part of the emergency response activities.

14.3 Site Communication Methods

DF must have a means of communication to all personnel. The primary method of communication to all personnel will be through cell phones and two-way radios (flaggers)

14.4 Sirens, Alarms, and Signaling Devices

DF must have a means of communication to all personnel. The primary method of communication to all personnel will be through cell phones.

<u>Signal</u>	<u>Meaning</u>
One long blast on (air horn)	Evacuate Area
Two long blast on (air horn)	All Clear



Hands on top of head	I'm OK
Strongly wave arm(s) over head	HELP (Assistance NEEDED)
Cross arms in front of head, fists closed	Stop / stay away
Hand clutching throat	Out of air / can't breathe
Grip partner's wrist or waist	Leave Area Immediately
Point one arm in direction of evacuation, make large circling motion with other arm in direction of evacuation	Evacuate Area

14.5 Program Review and Update

EAPs shall be reviewed at least annually and updated to reflect any changes due to construction activities that may affect the plan.

Records of the annual review will be maintained on the DF project.

14.6 Hazard and Incident Assessment

EAPs shall, at a minimum, include the following sections for handling the following types of incidents:

- Severe weather conditions
- Fires and/or explosions
- Acts of violence
- Chemical and petroleum releases
- Power outages
- Medical emergencies



As part of the EAP's development, potential hazards and risks of the planned work, nature of the site, or due to the surrounding areas/properties shall be considered and incorporated into the EAP. This must include all major or serious risks that have the potential to impact the project.

All necessary resources shall be identified as to source, availability, and potential for redundancy. This shall include where local resources/responders will be utilized.

Where local resources are intended to be utilized, all efforts shall be made to familiarize those resources with the nature, locations, and hazards of the project. Additionally, local resources must be evaluated to ensure they meet the necessary requirements to perform the work.

Local resources must be evaluated as to availability and time required for response.

Where local resources are inadequate for the hazards/risks identified during the above evaluation, the project must obtain and provide any additional resources necessary to meet the identified needs.

Where local resources are limited a means of communication shall be established to ensure that the project is aware when those resources become unavailable.

Note: During periods of unavailability no work may be conducted that will expose workers to those hazards requiring those response resources.

14.7 Muster Points

Muster points must be evaluated and selected based upon their ability to accommodate the number of personnel on site and location.

At least two distinct muster points (i.e., a primary and a secondary) per Segment external to the site must be identified wherever possible.

- Locations of primary and secondary muster points should be selected to allow personnel to take alternative routes or exits from the site, where possible.
- Muster points may be utilized/shared where they meet the criteria herein and the facility agrees with the sharing.

Muster points must be re-evaluated as part of the EAP's annual review or anytime access to a muster point becomes impeded.

Muster points should be free of traffic and responding emergency vehicles.



Muster points should be readily accessible and not locked, secured, blocked, or otherwise made inaccessible.

Muster points should be clearly marked on all site maps and all personnel made aware of locations. Muster points should have signage or other means of visible identification.

Where a muster point becomes inaccessible or unavailable it must be replaced with a temporary muster point until the primary is returned to service.

Temporary muster points must meet all requirements herein.

14.8 Response Resource Evaluation

Response resources are required based upon the hazard assessment conducted in development of the EAP.

All response resources must be evaluated and selected based upon their ability to respond and be adequate for the potential types of responses required. On-site crews shall have at least one member trained in First-aid/CPR. Additionally, all Foremen, Superintendents, and Segment Managers shall be trained in first-aid/ CPR.

Evaluation of hospitals, medical centers, or other medical facilities must include location, accessibility, availability, and ability to handle the potential types of injuries. The current list of local medical clinics and hospitals shall be posted in all job trailers. (see attachment: On-site Emergency Response Worksheet).

Specialized rescue equipment and personnel (i.e., confined space, tunneling, etc.) shall be evaluated based upon location, ability to respond, amount or size of crews/equipment available, and any other applicable OSHA or best management practice requirements.

14.9 Access and Control

EAPs shall provide a means for the identification of vehicles on site. This shall also include identification of the operator and contact information.

Temporary or other access points must be secured upon the departure of security personnel.

Visitors shall be directed to DF or they are visiting for checking-in and orientation prior to being allowed on site.

A means of communication shall be established to allow DF to be notified of visitor arrivals.



EAPs shall identify where and whether site visitors must be escorted in some or all areas of the DF Project.

Where access points are temporary or not open at all times, EAPs shall incorporate routes of travel and muster points which are not impacted by the potential closure of the access point unless a localized means of opening the access point is provided.

Access points shall be marked and adequately lit to allow identification and entry by emergency responders.

Where the main access point is removed from service signage shall be provided indicating the new access point and this information shall be provided to local emergency responders prior to establishment.

14.10 Drills and Exercises

A drill must be conducted at least semi-annually.

Drills and exercises shall be designed to randomly test various sections of the site's EAP. This must include those hazards and incidents as identified during the risk assessment.

A drill/exercise shall be conducted for each work shift (i.e., if two shifts per day are worked then each quarter would have one drill per shift for a total of two drills).

Records of the drills/exercises shall be maintained on site and available for review. Local emergency services shall be invited and included in all drills.

14.11 Training

All project personnel shall receive initial training on the requirements of the EAP and Personnel shall also receive training upon updating of the EAP. This training shall occur as part of the employee's EHS orientation to the project or otherwise provided before employee commencement of work upon the site.

As part of Employee Health and Safety Orientation, all personnel shall be provided:

- Correct site name and address;
- Phone number for emergency services;
- Phone number for plant operations (i.e., watch engineer, plant chief, etc.);
- Location and methods of utilizing facility phones (where present);
- Notification procedures in case of an incident/emergency; and,



- Communication limitations (i.e., cellular dead zones, etc.).

Site visitors shall receive an orientation which includes basic EAP information such as alarm signals, muster points, and evacuation routes. This information shall be provided also in written form as part of visitor's PPE and may be in the form of card or handout.

Records of all training shall be maintained on site.

15. Hazardous Waste Operations

DF will manage all hazardous waste, (e.g., lead paint, asbestos, contaminated soil), in accordance with all applicable federal, state, and local regulations, including but not limited to the State hazardous waste regulations and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and CCR Title 8 section 5192. Hazardous waste generated by a Subcontractor as part of its work is the responsibility of that Subcontractor.

DF will develop a Hazardous Waste Remediation Plan as needed that identifies all procedures for the safe handling of hazardous waste. As the project develops, or phased, the appropriate plans shall be developed as work is designed and these plans shall then be submitted for approval and implementation. The Hazardous Waste Remediation Plan shall describe the responsibilities related to hazardous wastes and shall include, but is not limited to the following: identification of those wastes classified as hazardous waste in accordance with all applicable regulations; proof of registration with EPA and/or DEP as a generator of hazardous waste and/or waste oil; and certification of appropriate hazardous waste training for all Employees.

15.1 Lead

Unless a specific lead-paint inspection has been provided, DF shall assume that any painted surface with which there is contact during performance of the work is coated with lead-based paint, except where the paint was installed by a Contractor as part of the work and the paint is known not to contain any level of lead.

- Subcontractors should not perform any intrusive, dust-generating work (e.g., drilling, cutting, sanding, and brazing, scraping, demolition) on painted surfaces unless the surface has been confirmed to be non-lead or unless such work is part of the contracted work and they are specifically trained to do so.
- Any painted surfaces that have loose, flaking, chipping, or otherwise non-intact paint should not be impacted by the subcontractor and should be reported to the Safety Manager immediately.



- Lead paint abatement Contractors shall coordinate with the DF Project Manager for specific requirements for lead abatement work, including procedures for containerizing, testing and shipping LBP.

15.2 Asbestos Containing materials, (ACM)

- Structures that may contain ACM are required to maintain the ACM in good repair to prevent the release of asbestos fibers, or if disturbance of ACM for repair purpose must take place, activities are required to adhere to current asbestos regulations.
- DF Project Manager should notify the Safety Manager prior to initiating any construction, renovation, and/or demolition work. The Subcontractor doing the abatement work should provide a specific asbestos inspection report for work in those areas in question identifying, before work is begun, the presence, location, and quantity of asbestos-containing or potentially asbestos-containing materials that would be specifically impacted by the pending work .
- Prior to commencement of the work, the Subcontractor shall make all required notifications and secure all required permits for asbestos abatement activities.
- The abatement Contractor will be responsible to abate all identified ACM in accordance with all applicable regulations. The abatement contractor shall submit an abatement report that confirms ACM identified in the ACM survey report was abated.
- Asbestos Contractors shall coordinate with the DF Project Manager for specific requirements regarding asbestos abatement work.
- The Abatement Contractor shall not disturb, damage, or otherwise handle any suspect ACM unless such activities are part of its contracted work and be specifically trained to conduct asbestos abatement work.
- Asbestos waste shall be handled and managed in accordance with all federal, state, and local regulations and ordinances. The Abatement Contractor shall coordinate with the DF Project Manager for disposal of asbestos-containing waste.

- The following suspect materials are assumed to contain asbestos, until analytical data shows otherwise:
 - Acoustical and decorative plaster
 - Adhesives
 - Asbestos Concrete Pipe
 - Boiler, breeching, and pipe insulation
 - Bridge bearing pads
 - Caulking/putties
 - Ceiling tiles and lay-in panels
 - Cement wallboard
 - Chalkboards
 - Cooling towers
 - Electrical panel partitions, electrical cloth, and wiring insulation
 - Elevator equipment panels and brake shoes
 - Fireproofing materials, including gaskets, fire blankets, fire curtains, fire doors, etc.
 - Flooring backing, construction mastics, and asphalt floor tile
 - Heating and electrical ducts
 - HVAC duct insulation, flexible fabric, and flexible fabric connectors
 - Lab hoods, benches and gloves
 - Packing materials, wall/floor penetrations
 - Roofing shingles and felt
 - Spray-applied and blown-in insulation
 - Taping, spackling, and joint compounds
 - Textured paints/coatings
 - Thermal paper products
 - Vinyl sheet flooring and floor tile
 - Vinyl wall coverings
 - Wallboard

15.3 Soils

DF and all Subcontractors will comply with all applicable federal, state, and local regulations and ordinances regarding the excavation and off-site management of soils removed during the course of their work. The Subcontractor must first coordinate with the DF Project Manager for the proper characterization and management of soils. A pre-characterization plan may be necessary to characterize the soils prior to excavation. Preparation and implementation of this plan must be under the direction of a Qualified Person. Prior to excavation, the Subcontractor shall determine the off-site disposal/recycling facility for the soils. DF Project Manager should contact any listed and approved soil management facilities.



In the event that an unanticipated contamination or potentially hazardous material is discovered in the soil by a DF employee or Subcontractor. Work should stop and the area should be cordoned off and no one should enter the area until the area can be assessed for health and safety risks. The Safety Manager shall be notified. The Project Manager will make a determination on whether and how the work should proceed. This will likely require additional investigation and sampling of soil.

Below are the steps taken for contaminant characterization and disposal for anticipated and unanticipated Class I and Class II materials

- Contact approved testing facility to request collection of representative sample of contaminate
- The testing facility will review the lab data as necessary to determine California regulated (non-RCRA) hazardous waste or non-hazardous waste
- The testing facility will send lab data to transporter Environmental or other transporter
- Profiles and applicable laboratory testing reports shall be sent to the PCM for review prior to shipping. Profiles can only be signed by the Authority or Agent assigned by the Authority in writing.
- Transporter generates a profile (non-hazardous) or if hazardous waste (acceptance letter has info added to it or if new materials a profile is generated).
- Transporter gets landfill acceptance.
- DF of the Subcontractor setup trucking schedule with transporter.
- Signed manifests (post-disposal) returned to Generator from landfill.
- Manifests scanned and logged in the disposal database.
- Tonnage report from transporter to DF or Subcontractor to be logged into the disposal database with corresponding manifest info.

15.4 Water

Water, (run on/run off), shall be managed with the intent to protect and minimize any negative impacts to the job site and the surrounding area. Ground waters shall also be managed to protect against the similar impacts. This shall be done by identifying the risks and hazards, taking the proper precautions or protective measures, and conducting regular inspections or audits. These steps shall be taken in conjunction with the Storm Water Pollution Prevention Plan, (SWPPP), the Hazardous Waste Remediation Plan, (HWRP), and the site Emergency Action Plan, (EAP).



16. Work Zone Traffic Control

As a minimum, Temporary Traffic Control (TTC) shall be established in accordance with the requirements of the California Department of Transportation (DOT) guidelines and supplements to the manual or Chapter 6 of the California Manual on Uniform Traffic Control Devices (CA-MUTCD).

All traffic control devices used for construction, maintenance, utility, or incident management operations on a street, highway, or private road open to public travel shall comply with the applicable provisions of CA-MUTCD as found in Chapter 6F. Improvised traffic control devices (signage, barricades etc.) not meeting the above requirement are not permitted.

The requested permit must be appropriate for the type of work that is planned. Permits must be kept at the work site or designated field headquarters at all times and must be made available for inspection.

All Street Work permit holders shall comply with the most recent version of the California Manual on Uniform Traffic Control Devices for Streets and Highways (CA-MUTCD) and DOT with supplements. These permit holders shall comply with all regulatory agency rules for TTC depending upon the authority that has regulatory jurisdiction for the area.

16.1 Work Zone Duration

Work duration is a major factor in determining the number and types of devices used in TTC zones. The duration of a TTC zone is defined relative to the length of time a work operation occupies a spot location.

16.1.1 Mobile Work Zones

Mobile work zones provide the lowest level of traffic control and safety and shall only be used where the work at any specific location will be completed within 15 minutes. There may be cases where site specific conditions justify longer duration use of mobile work zones to minimize the exposure of traffic and the workers to each other. In such cases, an exception may be accepted by DF after consideration of relevant factors such as speeds, sight distance, staging of the work, degree of obstruction to traffic, traffic volumes, and the relative severity and duration of exposure to workers and traffic.

16.1.2 Short Duration

Short duration work occupies a location for up to 1 hour. Due to the short work time, simplified traffic control set-ups are allowed to reduce the hazards of traffic exposure to workers. Careful consideration of traffic and roadway conditions must be given to each work zone prior to selecting the most appropriate traffic control set-up. Shoulder work and low speed, low volume lane work may only



require a single warning sign, cones, and a flagger, while a high speed; high volume road would require a more detailed lane closure utilizing more safety control devices such as a barrier vehicle, signs, channelizing devices and a flashing arrow panel.

16.1.3 Short-Term Stationary

Short-term stationary work occupies a location for more than 1 hour within a single daylight period.

16.1.4 Intermediate-Term Stationary

Intermediate-term stationary work occupies a location more than one daylight period up to 3 consecutive days, or night time work lasting more than 1 hour. Typically, the work area is occupied by excavations, materials, and/or equipment at times when workers are not present.

16.1.5 Long-Term Stationary

Long-term stationary work occupies a location for more than 3 consecutive days. Typically, the work area is occupied by excavations, materials, and/or equipment at times when workers are not present. Extra care should be taken when scheduling work at night. Lighting of the work area and/or flagging stations is required. In addition to retro-reflective signs & channelizing devices, light dimming arrow panels, additional lights on work equipment.

16.2 Traffic Control Plan

A Traffic Control Plan (TCP) describing TTC measures to be used for facilitating road users through a work zone shall be developed by a person knowledgeable (trained and/or certified) about the principles of temporary traffic control and work activities such as a trained traffic control supervisor or Professional Engineer.

The person shall be familiar with the requirements of CA-MUTCD applicable state and local requirements. The degree of detail in the TCP depends on the traffic volume, speed, work duration, location of the work in relationship to the road and the type of work being performed. The TCP shall be incorporated into DF's Health and Safety Plan (EHASP) and the Job Hazard Analysis performed for the work to be performed.

- Prior to the beginning of work operations, evaluate all aspects of the work area, including sight distance, traffic speed, volume, road approaches, work duration, and the type of work activity, before determining the appropriate traffic controls.
- Working on or along the highway can present a potentially hazardous work environment. Consider the risk to workers when developing the traffic control plans.



- The proper control of traffic is necessary to ensure the safety of workers and public to minimize adverse traffic impacts associated with the construction in terms of delays and congestion, noise and other environmental impacts, while providing good access to the worksite.

The TCP plan shall be completed for all road construction, utility work, maintenance operations (including minor maintenance and utility projects) prior to occupying the TTC zone. Planning for all road users (school buses, bicyclist emergency responders) should be included in the process.

Where existing pedestrian routes are blocked or detoured, information shall be provided about alternative routes that are usable by pedestrians with disabilities, particularly those who have visual disabilities. Access to temporary bus stops, travel across intersections with accessible pedestrian signals, and other routing issues shall be considered where temporary pedestrian routes are channelized. Barriers and channelizing devices that are detectable by people with visual disabilities shall be provided.

Where projects overlap coordination shall be made to ensure that that duplicate signing is not used and to check compatibility of traffic control between adjacent or overlapping projects.

16.3 Operational Practices

After the traffic control plan is implemented, the Traffic Control Supervisor should drive through the work area, at the anticipated speed of motorists to determine the effectiveness of the plan and make adjustments as appropriate. Additional reviews throughout the work shift shall be made to ensure that traffic control devices remain in place. It is important for work occurring during nighttime hours that the devices are reviewed to ensure proper visibility.

Whenever temporary traffic control zone extends more than 2 miles from the first advance warning sign, the devices shall be moved forward in order to maintain appropriate advance warning to drivers, especially in urban areas with multiple interchange ramps.

DF shall contact the appropriate Authorities Having Jurisdiction (AHJ) prior to starting work and after completion when appropriate, based on region policies to notify them of your work operation status. Also coordinate with the region public information officer (PIO) for public notification and to be included in the weekly region construction activity report.

All road closures or detours shall be coordinated with local authorities.

When setting up traffic control local law enforcement should be contacted to provide a patrol vehicle, if they have the manpower available. A request for a law enforcement detail should be made for nighttime lane closures on high volume/high speed freeways or road closures and other critical work zone traffic situations.



Flaggers and workers within the work zone shall wear high visibility outer garments with retro-reflective material, in addition a high viability hard hat shall be worn by flaggers and workers exposed to traffic. High visibility garments shall be compliant with ANSI/ISEA standards for Class 2 or Class 3 garments.

Flagger stations shall be established in accordance with section 6E.08 of CA-MUTCD or applicable section of the DOT Index guidelines with supplements. At night flagger stations shall be illuminated.

All personal equipment and traffic control devices must be kept clean to provide protection for the crew through better visibility to the motorist. The condition of signs and traffic control devices shall be "acceptable or marginal" as defined in the book Quality Guidelines for Temporary Traffic Control Devices. A sign or traffic control device determined to be "not acceptable" shall be replaced as soon as possible.

Signs that are no longer retro-reflective (visible and legible at night) or are in poor condition are to be replaced. All standard temporary warning signs are required to be 48 inches x 48 inches diamond shape

Signs that will be in place at one location continuously for longer than three days must be post mounted.

Where it is necessary to add weight to signs for stability, sand bags or other ballast may be used, but the height to the top of the ballast must not be more than 4 inches above the roadway surface and must not interfere with the breakaway features of the device.

Traffic safety cones are the most common devices used to separate and guide traffic past a work area. Cones must be a minimum of 36 inches tall. For high speed, high volume, or nighttime operations, devices must be a minimum of 36 inches tall, and retro-reflectorized. Traffic safety drums must be 36 inches tall and are recommended for use in the tapers on high-speed roadways due to their greater visibility and imposing size

Flaggers should be employed only when all other methods of traffic control are inadequate to direct, or control, traffic.

The placement of a flagger at the center of an intersection to control traffic is not allowed. The only person allowed to legally control traffic from the center of an intersection is a uniformed police officer.

Only STOP/SLOW or STOP/STOP paddles shall be used by flaggers. In an emergency situation only a red flag may be used. Where the distance between two flaggers is more than 100 feet apart or when they cannot see each other the flaggers shall be provided with two way radios.



All work trucks and other vehicles shall be equipped with two yellow revolving beacons (pickups have one beacon). Warning beacons will be in operation whenever vehicles and equipment are operating in or near traffic, and turned off when parked out of traffic or traveling at normal highway speeds.

Work in the roadway may require two or more days to complete. It is therefore important that the work site be left in safe condition overnight. The site supervisor shall be responsible for making sure that adequate signs and channeling devices are in place to alert drivers and pedestrians to any changes in the roadway. All devices shall be retro-reflective to ensure good visibility at night. The site supervisor shall inspect the work zone at the end of the shift to make sure it is in good condition.

All equipment left unattended at night, adjacent to a highway in normal use or adjacent to construction areas where work is in progress, shall have lights or reflectors, or barricades equipped with lights or reflectors, to identify the location of the equipment.

16.3.1 Pedestrians

All pre-existing American's with Disabilities Act (ADA) compliant pedestrian facilities within the work zone must continue to comply with ADA requirements for access during work operations. Consider the following when addressing pedestrian issues within and around work zones:

- Accessibility through the work area for pedestrians must be accounted for prior to starting work operation if temporary pedestrian ramps are necessary at the work location.
- Pedestrians should not be led into conflicts with work site vehicles, equipment, and operations.
- Pedestrians shall be provided with a safe, convenient path that replicates as nearly as practical the most desirable characteristics of the existing sidewalks or a footpath. Pedestrians generally will not go out of their way. Make alternate pathways reasonable.
- Placements of sidewalk closure signs are required in advance of the closure point for pedestrians to make adjustments to their route. It must be recognized that pedestrians are reluctant to retrace their steps to a prior intersection for a crossing.

16.3.2 Bicycles

Bicycles have a legal right of access to most highway facilities and provisions for their safe conduct through work zones are necessary.

- Provide for and sign an appropriate alternate route when activities close a designated (signed) bicycle path or shoulder bikeway. Where horizontal separation for bicycles and pedestrians existed prior to work, give consideration to separating during work.
- When laying out alternative bicycle paths, make sure no overhead obstructions present a direct hazard to normal bicycle operation.



- Riding surfaces are important for safe bicycle operation. Loose gravel, uneven surfaces, milled pavement, and various asphaltic tack coats endanger the bicyclist. Consider the condition of the surface the bicyclist will be required to use.

16.3.3 Schools

Work zone operations in the vicinity of schools require consideration to ensure that conflicts are kept to a minimum. Issues that should be considered are:

- Student path to and from the school
- Bus movements for loading and unloading students
- Coordination with school administrators and crossing guards
- School hours to minimize impacts

16.4 Training and Qualifications

16.4.1 Traffic Control Supervisor

DF shall designate a Traffic Control Supervisor who is certified by recognized training programs, such as the American Traffic Safety Service Association. The Traffic Control Supervisor shall be onsite at all times and is responsible for establishing the work zone. The Traffic Control Supervisor's name and qualifications shall be included in the TCP.

16.4.2 Flagger

All flaggers shall be adequately trained in flagging operations by recognized training programs, including the American Traffic Safety Services Association, the National Safety Council, unions, or construction industry associations, or by an individual who holds a current certification as a flagger training instructor. Prior to the start of flagging operations, the subcontractor shall provide to DF a list of certified flaggers to be used in the operation, identifying the source of flagger training for each individual.

When requested by DF, flaggers shall demonstrate their competency in flagging procedures. Flaggers not competent in flagging procedures to the satisfaction of DF shall be retrained or replaced.

16.4.3 Workers

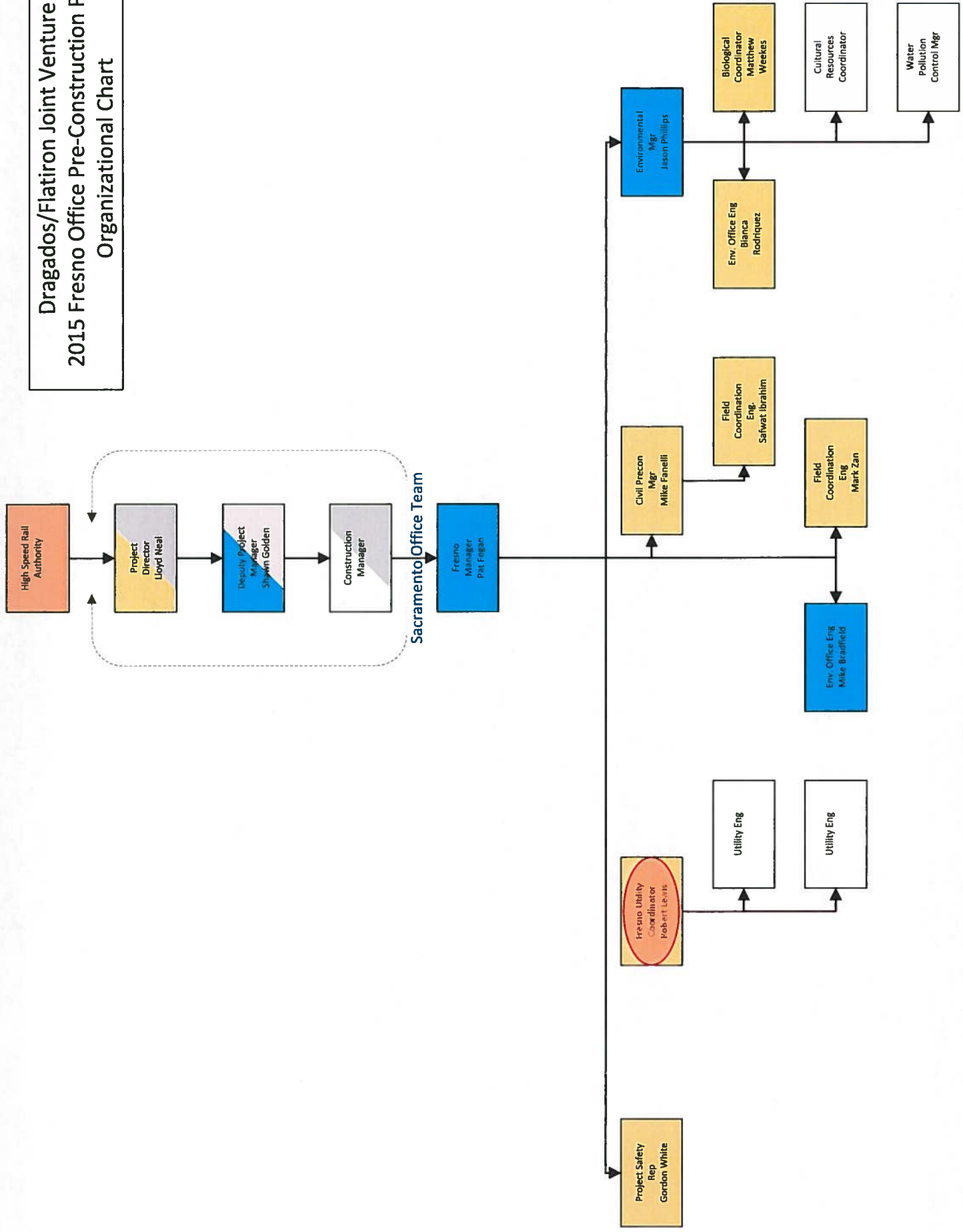
All workers assigned to highway work sites must be trained to recognize the risks associated with working in or adjacent to traffic and the measures to safeguard themselves, coworkers, and the public from those risks.



As a minimum, this training should discuss basic work zone safety rules, protective equipment such as high visibility apparel and hard hats, accident reporting, employee response to dangerous conditions that present an immediate hazard to traffic or workers, and operation of work vehicles and personal vehicles in work zone situations.

Workers with traffic control responsibilities (setup, maintenance and removal of traffic control devices) in addition to the basic training, workers must be provided with adequate technical training to carry out those skills. This training may be provided at the job site, through union training programs, or through other programs provided by the company.

Dragados/Flatiron Joint Venture 2015 Fresno Office Pre-Construction Phase Organizational Chart



JHA - JOB HAZARD ANALYSIS - Site Specific



Date Created:	Type of Work:	Location/Job#:	Contract#:
	Steel Pipe Welding	CP 2-3	13-57
Date Discussed:	Verify JHA discussed with crew Superintendent Signature:	Superintendent:	Engineer:
			G. White

Activity Description		HAZARDS	Preventative or Correction Actions to be Taken
Working in new intake tower and connected structures Cal OSHA & Site Specific Requirements	Itemized in training plan		Training must be completed prior to obtaining access to the new intake tower and / or any connecting structures.
Welding Machine Setup	Electrocution		Verify that the last ten feet of the leads / stinger has no tape or damage to the outer insulation jacket on the SO cord. Also, make sure that there is no exposed inner conductor on the leads. A repair to the outer insulation jacket must meet or exceed the initial insulation equivalent. At the lead contacts located on the welder, protective covers shall be installed to prevent one from being electrocuted. Any external power tools or temporary power cords that may be run off of the welder, must be connected to a GFCI.
	Slips / Trips / Falls		When laying out the leads, verify that the leads are not going to create a slip / trip / fall hazard. Should there be multiple leads placed within a restrictive work environment, the cords shall not be tangled or present a hazard.
	Strains / Sprains		When laying out the leads, always utilize proper lifting techniques. Get help as necessary. Follow stretch and flex procedures as depicted in IIPP

JHA - JOB HAZARD ANALYSIS - Site Specific



Date Created:	Type of Work:	Location/Job#:	Contract#:
	Steel Pipe Welding	CP 2-3	13-57
Date Discussed:	Verify JHA discussed with crew Superintendent Signature:	Superintendent:	Engineer:
			Safety Representative:
			G. White

Activity Description	HAZARDS	Preventative or Correction Actions to be Taken
		in the HASP.
	Noise – 85db TWA	Wear hearing protection. If using ear plugs, roll the plug to reduce the diameter, insert the rolled plug in the ear canal, hold your finger over the end of the plug to keep the plug in your ear while it is expanding. This procedure will ensure the ear plug provides maximum noise protection.
	Atmospheric	<p>The welding machines need to be placed so as their exhaust cannot be introduced into the work environment found inside the new intake tower and connected structures.</p> <p>The ventilations system in place shall be in use at all times while work is being completed in the new intake tower and connected structures.</p> <p>Store all fuels at a minimum of 100 feet from any entrance to the new intake tower and/or connected structures.</p>
	Fire	<p>Make sure to have the appropriate fire extinguishers and firefighting equipment present.</p> <p>A hot work permit is required for all hot work being completed both within and outside of the new intake tower and connected structures.</p> <p>Store all fuels at a minimum of 100 feet from any entrance to the new intake tower and/or connected structures</p>
	Pinch Point – Spring Clamp	<p>Should a ground clamp that is spring loaded utilize, verify the clamp is securely fastened and one's fingers/hand is not caught in between.</p> <p>Always utilize the necessary gloves for hand protection.</p>

JHA - JOB HAZARD ANALYSIS - Site Specific



Date Created:	Type of Work:	Location/Job#:	Contract#:
	Steel Pipe Welding	CP 2-3	13-57
Date Discussed:	Verify JHA discussed with crew Superintendent Signature:	Superintendent:	Safety Representative:
			G. White

Activity Description	HAZARDS	Preventative or Correction Actions to be Taken
Arc Welding Pipe	General Hazards	<p>Always use all necessary project required PPE. This at a minimum shall include: A hard hat, safety glasses, Class 2 retro-reflective safety vest, work boots, work pants, a shirt with 4" sleeves and gloves. Note: Additional or varying PPE will be adjusted as required should the task necessitate.</p> <p>Note: A class 2 retro-reflective safety vest will not be required for the welder's provided that while they are out of the new intake tower and/or connected structures are not exposed to equipment traffic. There work area will be properly delineated so as no mobile equipment can enter into their work area.</p>
	Arc Flash	<p>Appropriate eye protection shall be utilized whenever welding operations are being completed. Dependent upon the welding methodology and electrode utilized, the proper shade shall be utilized. Refer to Title 8 section 3382 for selection of the minimum shade requirements.</p> <p>Warn others prior to striking an arc. Implement necessary arc flash shield whenever possible.</p>
	Atmospheric	<p>The ventilations system in place shall be in use at all times while work is being completed in the new intake tower and connected structures.</p> <p>At a minimum, there shall be 60 fpm ventilation while working in the new intake tower and/or connected structures.</p>

JHA - JOB HAZARD ANALYSIS - Site Specific



Date Created:	Type of Work:	Location/Job#:	Contract#:
	Steel Pipe Welding	CP 2-3	13-57
Date Discussed:	Verify JHA discussed with crew Superintendent Signature:	Superintendent:	Safety Representative:
			G. White

Activity Description	HAZARDS	Preventative or Correction Actions to be Taken
		Note: Local exhaust ventilation may be needed during welding operations.
	Burns	Whenever welding is occurring, the welder shall wear appropriate protective leathers or equivalent to prevent burns to the skin via thermal or ultra-violet energy.
Removal of welding slag	Slag in the eyes	Appropriate eye protection shall be utilized whenever slag removal operations are being completed.
	Noise – 85db TWA	Wear hearing protection. If using ear plugs, roll the plug to reduce the diameter, insert the rolled plug in the ear canal, hold your finger over the end of the plug to keep the plug in your ear while it is expanding. This procedure will ensure the ear plug provides maximum noise protection.
	Rupturing of air line	Should a pneumatic needle scaler be utilized to remove slag, verify that all connection points of the airline are pinned and have a whip check installed.
Grinding – surface preparation and / or weld beads	Burns	Whenever grinding is occurring, the welder shall wear appropriate protective leathers or equivalent to prevent burns to the skin.
	Metal debris in the eyes	Appropriate eye protection shall be utilized whenever grinding operations are being completed. Safety glasses or goggles shall be worn underneath a full face shield or welding helmet when grinding.
	Grinding disc failure	Never use a damaged grinding disc. Always have the manufacturers grinding guards in place during grinding

JHA - JOB HAZARD ANALYSIS - Site Specific

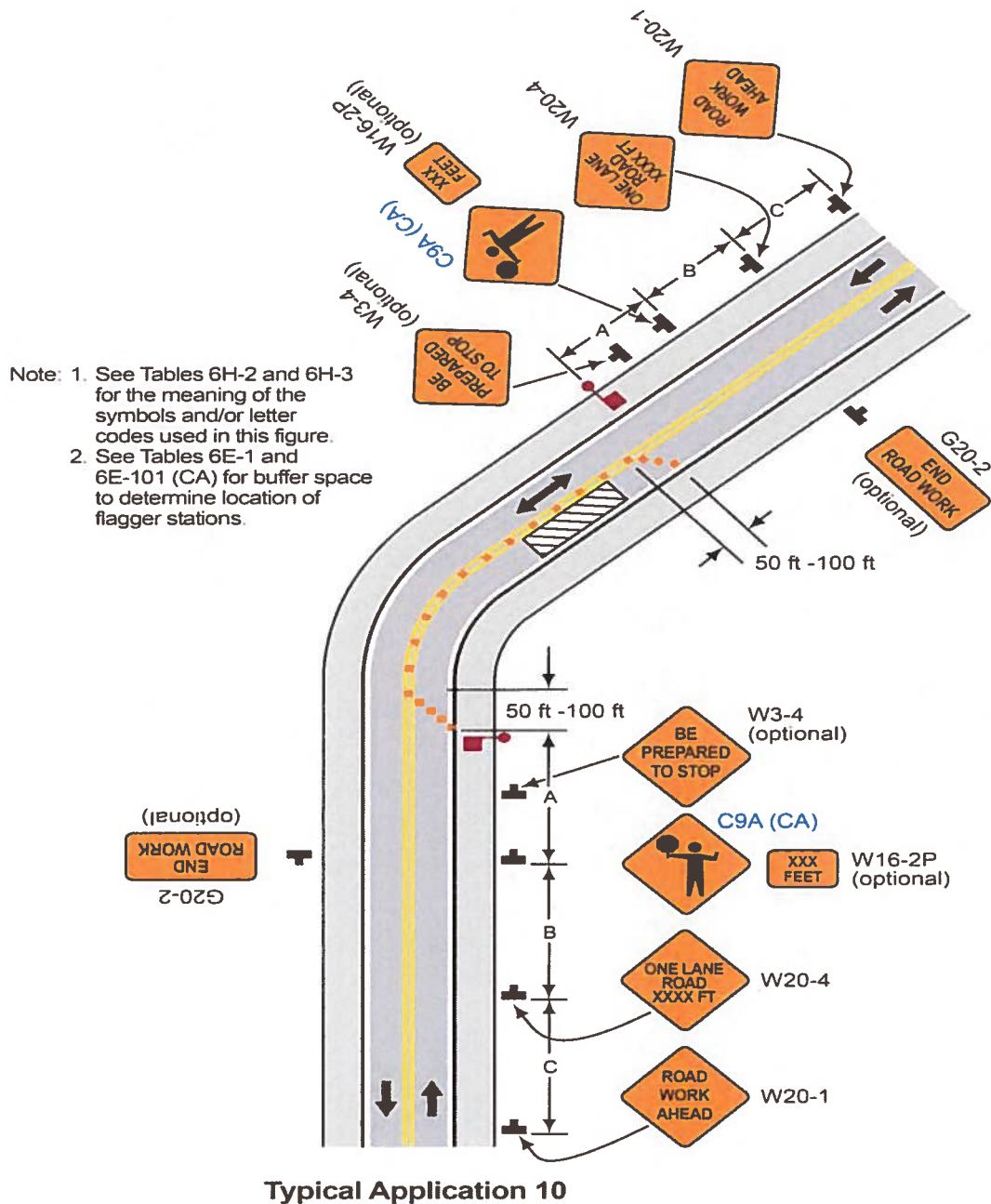


Date Created:	Type of Work:	Location/Job#:	Contract#:
	Steel Pipe Welding	CP 2-3	13-57
Verify JHA discussed with crew			
Date Discussed:	Superintendent Signature:	Superintendent:	Safety Representative:
			G. White

[illegible]

Appendix C (sampleTTC)

Figure 6H-10 (CA). Lane Closure on Two-Lane Road Using Flaggers (TA-10)



DATE OF INCIDENT: ____/____/____ TIME ____ AM PM POLICE DEPT. _____ CASE/REPORT NO: _____
 CONDITIONS: (Circle One) LIGHT DARK RAINY CLEAR WET DRY TRAFFIC: (Circle One) HEAVY LIGHT MODERATE
 LOCATION OF INCIDENT: _____ CITY/COUNTY: _____
 SUP'T: _____ FOREMAN: _____ JOB NO: _____

FORM COMPLETED BY (PRINT) _____ DATE _____ SUPERVISOR (PRINT) _____ DATE _____

SIGNATURE _____ SIGNATURE _____



ON- SITE EMERGENCY RESPONSE WORKSHEET

The form shall be filled out at your current work location and will be used as a reference in case of an accident or injury and Emergency Services need to be notified.

Foreman Name: _____ Contact Phone # _____

Superintendent: _____ Contact Phone# _____

Location of JobSite: _____

Nearest Cross Streets: _____

Nearest Clinic : _____

Nearest Hospital: _____

POLICE/FIRE: _____

DAILY RISK ASSESSMENT



Superintendent: _____

Foreman: _____

Job #:

Date:

Operation:

TASKS		HAZARDS		CORRECTIVE MEASURES	
1	_____	1	_____	1	_____
2	_____	2	_____	2	_____
3	_____	3	_____	3	_____
4	_____	4	_____	4	_____
5	_____	5	_____	5	_____
6	_____	6	_____	6	_____
7	_____	7	_____	7	_____
8	_____	8	_____	8	_____
9	_____	9	_____	9	_____
10	_____	10	_____	10	_____

ACCESS / EGRESS /
PARKING:

POTENTIAL PINCH
POINTS:

REQUIRED PROTECTIVE EQUIPMENT

- | | | | | | | | |
|--|---|--|---|---|---|---|------------------------------------|
| <input type="checkbox"/> Abrasive Blast Hood | <input type="checkbox"/> Cutting Goggles | <input type="checkbox"/> Gas Monitor | <input type="checkbox"/> Ladder Climbing Device | <input type="checkbox"/> Reflective Vest | <input type="checkbox"/> Safety Goggles | <input type="checkbox"/> Water | <input type="checkbox"/> PPE/other |
| <input type="checkbox"/> Beam Walkers | <input type="checkbox"/> Face Shield | <input type="checkbox"/> Gloves (Specify Type) | <input type="checkbox"/> Lanyard | <input type="checkbox"/> Respirators (Type) | <input type="checkbox"/> Self-Retracting Lifeline | <input type="checkbox"/> Welding Hood | <input type="checkbox"/> PPE/other |
| <input type="checkbox"/> Chain Saw Chaps | <input type="checkbox"/> Fire Extinguishers | <input type="checkbox"/> Hard Hats | <input type="checkbox"/> Life Vest | <input type="checkbox"/> Rubber Boots | <input type="checkbox"/> Stop Paddles | <input type="checkbox"/> Welding Leathers | <input type="checkbox"/> PPE/other |
| <input type="checkbox"/> Chin Strap | <input type="checkbox"/> Full Body Harness | <input type="checkbox"/> Hearing Protection | <input type="checkbox"/> Metatarsal Guards | <input type="checkbox"/> Safety Glasses | <input type="checkbox"/> Traffic Control Signage | <input type="checkbox"/> Welding Screens | <input type="checkbox"/> PPE/other |

HEAT:

- ☐ Shade? (80°) _____ ☐ High Heat Procedures Required? (95° plus) _____ ☐ Medical Facility: _____
- ☐ Drink Water Frequently _____ ☐ High Temperature for the day _____ ☐ Location to Replenish Water: _____
- ☐ Preventative cool-down discussed _____

FORMS:

- | | | | | | | |
|--|---|--|---|--|--|---------------------------------------|
| <input type="checkbox"/> Hot Work Permit | <input type="checkbox"/> Pile Driving Checklist | <input type="checkbox"/> Critical Pick Checklist | <input type="checkbox"/> Trench & Excavation Pre-Construction Checklist | <input type="checkbox"/> Trench & Excavation Daily Visual Inspection | <input type="checkbox"/> Scaffold/Stair Tower Inspection | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Confined Space Permit | <input type="checkbox"/> Traffic Control Inspection | <input type="checkbox"/> Weekly Inspection | <input type="checkbox"/> Falsework Lowering | <input type="checkbox"/> Job Hazard Analysis | | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Equipment Inspection | <input type="checkbox"/> Weekly Inspection | | | | | <input type="checkbox"/> Other: _____ |

CREW SIGNATURES

Print:	Signature:	Date:	Print:	Signature:	Date:
Print:	Signature:	Date:	Print:	Signature:	Date:
Print:	Signature:	Date:	Print:	Signature:	Date:
Print:	Signature:	Date:	Print:	Signature:	Date:
Print:	Signature:	Date:	Print:	Signature:	Date:

CREW SIGNATURES

DFJV Jobsite Inspection Checklist

The following is to be used as a guide by management personnel to perform the safety inspection. Observations should be noted on the attached observation



Project:	
Job#:	
Inspection By:	
Position:	

Mark each item C = Compliant, N = Noncompliant, or NA = Not Applicable

1 Postings / Notices / Bulletins				6 Fire Protection				11 Fall Protection			
	C	N	NA		C	N	NA		C	N	NA
1 Required EEO, state, federal and/or local agency postings				1 Hot Work Permits completed				1 Full Body harnesses and lanyards worn properly and as req'd			
2 Emergency Action Plan Posted				2 Fire extinguishers properly located and accessible throughout job site				2 Lanyards are adequately secured to suitable anchorage			
3 Evacuation Plan, including muster points to account for employees				3 Fire Extinguishers fully charged & inspected monthly/annually				3 Perimeter guarding/Handrails in place where required			
4 Spill Response Plan in place and posted				7 Welding and Cutting	C	N	NA	4 Static lines installed and capable of supporting 5,000 lbs. of force per user			
5 Notice to employees on where to find Material Safety Data Sheets				1 Welding Leads & Cutting Torch hoses maintained in good working order				5 Fall protection equipment is used for fall protection ONLY			
6 Signs indicating First Aid Station or First Aid Kit locations posted				2 Combustibles moved a safe distance away from hot work operations				6 Fall protection inspected and maintained in a safe-for-use condition			
7 No Trespassing Signs posted at entry points to the job site				3 Flash arrestors installed on all cutting torch setups				7 Retrieval plan complete and communicated			
2 Safety Meetings / Planning	C	N	NA	4 Oxygen, Acetylene & combustibles separated by 20' or 30 min fire rated wall installed / stored				12 Scaffolds	C	N	NA
1 JHA has been completed for the observed tasks				5 Regulator gauges properly attached and maintained				1 Work Platforms fully decked between front uprights & guardrail			
2 Weekly Toolbox Talk completed				8 Tools and Equipment	C	N	NA	2 Scaffold grade planking utilized			
3 DRA is complete and reviews safe production of the day's tasks				1 Tools are maintained in a safe condition				3 Planks extend no less than 6", and no more than 12" over bearing rail			
4 Crew is familiar with the DRA and the hazards of the work (must ask crew members)				2 Tools are properly carried and stored				4 Ladder access with landing at 35' intervals as a minimum			
5 Stretch & Flex has been performed				3 Pneumatic / hydraulic hose connections properly secured				5 Scaffolds maintain a minimum of 15' from uninsulated electrical lines			
3 Training	N		NA	4 Proper tools used for the job performed				6 Scaffold Stairways provided with landings at 12' intervals			
1 All employees have had required orientation				5 All tools are properly guarded				7 Daily inspections conducted by competent person			
2 Employees have been trained for the assigned tasks				9 Electrical Safety	N		NA	13 Ladders, Stairways and Access	C	N	NA
3 Current 1st aid/CPR trained personnel on site				1 Cords to power tools inspected prior to each use				1 Ladder access clear and unobstructed			
4 Supervisors have been through supervisor safety training				2 No tape on any cords - Tools or Extension Cords				2 Ladders positioned at 4:1 ratio - (4 feet high to 1 foot out from wall)			
5 Subcontractor orientation completed				3 Ground Pins in place when required				3 Ladders extend 3 feet higher than landing point			
4 HazComm / Materials	C	N	NA	4 Ground Fault Circuit Interruptors (GFCI) utilized with power tools				4 Employees utilizing hoist to raise or lower materials (leaving hands free)			
1 Safety Data Sheets available for all Hazardous Mat'l used on site.				5 Supply Cords protected against vehicular or pedestrian traffic damage				5 Employees ascending/descending using three points of contact at all times			
2 Hazardous mat'l list up-dated and current				6 Cords maintained "out of water" to prevent possible shock hazard				6 All "Job Made" ladders constructed according to specific requirements			
3 Materials/Containers properly labeled - Contents and Hazard Rating				10 Personal Protective Equipment	N		NA	7 Ladders tied off/secured properly			
4 Hazardous materials are properly stored				1 Hard hats worn and maintained as required				8 Safe and proper access to work area			
5 Employees aware of Right to Know (must ask crew members)				2 High visible/reflective apparel worn as required				9 Step ladders used properly - full extend - no use of top two steps			
5 Housekeeping	C	N	NA	3 Hearing protection worn as required				10 Stair handrails no less than 36" high from tread to top of stair rail			
1 Project work areas are clean and free of excess trash, debris				4 Eye protection required and worn in a proper manner				11 Stairs having 4 or more risers or more than 30" in height, have handrails			
2 Walkways and passageways clear				5 Proper foot protection worn for job performed				14 Excavations	C	N	NA
3 Electrical Panels clear of debris/materials to allow full access				6 Face shield or goggles worn as required				1 Sloped and shored properly			
4 Fire Extinguishers clear of debris/materials to allow full access				7 Gloves worn when employee is exposed to potential hand hazards				2 Utilities notified prior to opening excavations			
5 Material or equipment properly stored				8 Proper Cutting Goggles used during cutting operations (#3 Shade Min)				3 Competent Person designated as required by OSHA for excavations			
6 Electrical cords, hoses, welding leads positioned to prevent trip hazards				9 Respiratory Protection worn and cared for as required				4 Access and egress provided within 25 ft. of employee(s)			
7 Scrap material free of protruding nails or other puncture hazards				10 Other Paper cups available/provided at all water coolers as req'd				5 Daily inspections conducted			
8 Trash receptacles are provided for work areas and water kegs				11 Adequate number of sanitary facilities provided & maintained as req'd				6 All excavations 20 ft. or greater are PE engineered & stamped			
9 Barricades, and/or rebar caps installed and maintained								7 Cofferdams have a minimum of 2 access and egress points			

15 Marine Work				17 Material Handling Equipment				19 Traffic Control			
	C	N	NA		C	N	NA		C	N	NA
1				1				1			
2				2				2			
3				3				3			
4				4				4			
5				5				20			
6				6				1			
7				7				2			
8				18				21			
9				1				1			
10				2				2			
16 Pile Driving				18 Hoisting and Lifting Equipment				21 Monthly Focus (Access/Egress)			
	C	N			N	NA			N	NA	
1				3				1			
2				4				2			
3				5				3			
4				6				22			
5				7				Employee Recognition - What was observed? Describe recognition			
								1			
								2			

23 Employee Behaviors - Reactions				Employee Behaviors - Body Position				Employee Behaviors - Tool Use			
	Y	N	NA		Y	N	NA		Y	N	NA
1				1				1			
2				2				2			
3				3				3			

#	DESCRIPTION OF CORRECTIVE / PREVENTIVE ACTIONS	ASSIGNED TO:	DATE Complete
	See Attached Pictures		
1			
2			
3			
4			
5			

The responsible individual for observations requiring corrective action should indicate the date of correction, and return this report within 24 hours of receipt. A status report should be attached with reasons indicated for observations that are not corrected.