CONSTRUCTION SAFETY AND SECURITY PLAN

CDRL ID No. 03-058

Prepared by:

Regional Rail Partners

For:

North Metro Rail Line Project

RTD CONTRACT No. 13DH008

March 17, 2017

Revision 01

The Construction Safety & Security Plan, Early Works has been prepared in accordance with the guidelines established by Contract 13DH008, Attachment 3, Section 8 and Section 9. It is also in accordance with the Occupational Safety and Health Administration (OSHA) regulations and the RTD FasTracks Construction Safety Guidelines.

Approvals:

Dave Trent, Project Director — Date: 5/4/17

Mike Salmon, Deputy Project Director — Date: 5/4/17

Tony Bale, Construction Safety Manager — Date: 5/4/17

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1.0 PROJECT SCOPE AND APPLICATION

The North Metro Rail Line is an 18.5-mile electric commuter rail line that will run from Denver Union Station through Commerce City, Thornton and Northglenn to Highway 7 in North Adams County.

Regional Rail Partners is a Joint Venture partnership between Balfour Beatty and Graham Construction. The project will be built along an existing Union Pacific and BNSF Railroad alignment.

MAJOR SCOPE OF CONSTRUCTION ACTIVITIES WILL INCLUDE:

- **6 Stations to be constructed**
- **10 Major Bridges – (Including 8900 LF Flyover Bridge – "i.e. the longest in Colorado")**
- **2 Pedestrian/Bike Access Bridges**
- **Multitude of drainage and retention pond construction**
- **Over 300,000 SF of Wall Construction (C.I.P and MSE Wall)**
- **Approx. 250 Utility Relocations**
- **14 Street Level grade crossing coordinated with adjacent street improvements**
- **22 Miles of new track to be placed**
- **Over 600 OCS Poles & 100,000 LF of Contact Wire**

1.1 Project HSE Policy Statement

Safety, Security, Health and Environmental Policy Statement

Consistent with the Regional Transportation District (RTD) vision, the Regional Rail Partners (RRP) are committed to join in the collaborative effort to support safety, security, health, and environmental responsibilities related to rail transit employees, contractors and the general public.

To fulfill the Zero Harm commitment for the North Metro Rail Line Project, the RRP will:

- Plan for, and provide a safe, secure and healthful workplace environment and commit to constantly improve the Safety, Health and Environmental policy and procedures as an integral part of the RRP organization;
- Provide all RRP employees with appropriate training, equipment, instructions and competent supervision to perform their duties and responsibilities safely;
- Require employees to comply with all applicable OSHA standards, and to follow all safety, health and environmental laws and regulations;
- Require employees, while on duty, to comply with drug and alcohol-free workplace policy established to ensure a safe, healthy and efficient working environment;
- Encourage employee involvement in reporting any unsafe condition or hazard to their supervisor to take prompt and appropriate action to correct the unsafe condition, as necessary;
- Promote suitable working relationships between all workers and uphold a zero tolerance position towards any form of violence, harassment, abuse, intimidation or threatening between workers.

Dave Trent Date
Project Director

1.2 Environmental Policy

Regional Rail Partners recognizes that environmental compliance and stewardship are of critical importance to the successful completion of the North Metro Rail Project. RRP encourages its employees and it partner companies to join with RRP in full acceptance of and compliance with this policy. We have and will maintain procedures that fully comply with federal, state and local regulations. We will provide adequate training to our employees to ensure that we are all aware of these procedures and are capable of following them.

1.2.1 Protection of the Environment

RPP will employ practical measures to protect the environment. We will conserve and protect the water, air, and land resources that we use. We will strive to eliminate harmful releases to land, air or water that may harm human health, other life forms or the environment. Continuous improvement in our environmental performance will be a principal objective.

1.2.2 Waste Management

The Company will work to prevent waste and pollution at the source whenever possible. New facilities and improvements of existing operations will use processes designed to minimize the environmental effects of our operations and will incorporate functional pollution control equipment.

1.2.3 Recycling and Waste Disposal

The Company will support recycling programs where practical and will use environmentally safe treatment and disposal practices for waste that is not eliminated at the source or recycled.

1.2.4 Compliance

The Company will manage existing facilities so that we meet or exceed legal requirements. We will implement programs and procedures to satisfy compliance. We will conduct compliance audits and monitor procedures and practices to evaluate our performance.

1.2.5 Disclosure

The Company will inform our employees of our progress in environmental issues. We will cooperate with the authorities and regulatory agencies in responding to inquiries. We will encourage our employees to report to the Company conditions that they reasonably believe could be harmful to the environment or pose health or safety hazards so the Company can initiate prompt corrective actions.

1.2.6 Processes & Procedures

Specific processes and procedures regarding the environmental protection aspects of the project can be located in the **Hazardous Materials Management Plan (HMMP**), the **Health and Safety Plan (HASP)**, and the **Project Storm water Management Plan** as applicable.

1.3 Roles and Responsibilities

1.3.1 General Scope & Responsibilities

Procedures outlined in this document pertain to all JV partner, subcontractor, and associated personnel and representatives working on the North Metro Rail Project. The following are general obligations related to the knowledge of and the compliance to the Regional Rail Partners and this Construction Safety and Security Plan (CSSP).

1.3.2 All Project Personnel

Failure to comply with safe practices shall result in disciplinary action up to and including termination of employment and/or removal from the project.

All project personnel are expected to:

- Be engaged in, abide by, and actively support all Safety and Health initiatives and policies and comply with all local, state or federal regulations.
- Attend and participate in safety planning, hazard awareness and required Safety training as applicable.
- Protect themselves and co-workers from hazards by being familiar with and understanding the operation JHAs and Daily Risk Assessments.
- Be familiar with and understand the project site incident and accident reporting protocol and procedures.
- Immediately report to his/her supervisor <u>any</u> near miss/near hit incident, <u>any</u> unsafe act or condition, or <u>any other</u> workplace incident without fear of reprisal.
- Seek assistance or training in unfamiliar situations that could present a hazard.
- To refuse work if conditions are deemed to be unsafe or hazardous.
- Be active participant(s) of any safety committee upon request.
- Be fully aware of and abide by all company "Life Safety Rules"
- NOT engage in cell phone use while on the Railroad Right of Way or when within 25' of the track, with the exception of business communications via company issued devices and with every consideration given to safety precautions.

<u>Employee Responsibility and Stop Work Authority</u>

All employees are responsible to carry out their work with the highest respect to safety, health, and protection of the environment and they also have the right to stop their work if they cannot fulfill this obligation. In this case, employees must inform their direct supervisor, who will take immediate corrective action. Contractor supervision is responsible to inform RRP supervision immediately for further follow-up. End responsibility for a safe and healthy work environment rests with the direct employer, but RRP management will work to help the contractor fulfill this obligation.

1.4 Acronyms and Definitions

BNSF – Burlington Northern Santa Fe Corporation (Railroad)

CSSP – Construction Safety & Security Plan

DOT – Department of Transportation

DTO – Denver Transit Operators

EIC – Employee In Charge – Railroad employee that has control of the track

FRA – Federal Railroad Administration

HASP – Health and Safety Plan (Environmental)

HMMP – Hazardous Materials Management Plan

IDLH – Immediately Deadly to Life and Health

JHA – Job Hazard Analysis

JSA – Job Safety analysis

MRO – Medical Review Officer – Medical Review Officers are doctors that are consulted with regarding applicable drug and alcohol screening.

OCIP – Owner Controlled Insurance Program – The project is subject to a specific insurance program that is issued to and paid for by the project owner, RTD. All contractors working on the North Metro Rail Project are required to be enrolled in the OCIP. The OCIP includes project coverage's for all Workers Comp, General Liability, Property, and other construction related coverage's.

PPE – Personal Protective Equipment – Required Basics, Hardhat, Hi-Vis vest, Safety Glasses, work clothing.

ROE – Right of Entry

ROW – Right of Way – Railroad property immediately adjacent to the track and that is identified as applicable distance requirement for railroad safety planning.

RRP – Regional Rail Partners (RRP) is a Joint Venture Company formed to design and build the North Metro Rail Project. The Joint Venture is formed between Balfour Beatty Rail Inc. and Graham Construction.

RWP – Roadway worker Protection- RWP Training is Federally mandated and required when working on or in close proximity to any operating railroad.

SDS – Safety Data Sheets – Required product Information from the manufacturer regarding general product information, proper handling, first aid and emergency procedures, for specific products that have the potential to be hazardous.

STA – Safety Task Assignment – STA's are a part of the daily safety planning process that list the steps of the tasks, hazards that could be encountered during the task and the STA also helps identify the controls that will be implemented to mitigate or eliminate the risks.

TEAM Book – The Team Book is a Daily safety and task planning tool that is used to help identify, communicate, and document how safety will be conducted on a given site on the project.

UPRR – Union Pacific Railroad

ZERO HARM – Zero harm is the vision, commitment, and focus of RRP to build a safe and incident free project.

1.5 Alcohol and Drug Policy

1.5.1 Purpose

To help insure a safe, healthy, and productive work environment for all workers, Regional Rail Partners (RRP) has adopted a policy of maintaining a workplace free of drugs and alcohol. This policy restricts certain items and substances from being brought onto, or being present on the premises, or projects. Workers are prohibited from reporting to work, or working under the influence of illegal drugs, alcohol, and other controlled substances which may affect their ability to perform work safely.

Workers under the influence of drugs or alcohol on the job pose serious safety and health risks not only to themselves, but also to all those who surround or come in contact with them.

Therefore, RRP asks for your full cooperation and support in abiding by this policy.

All workers or agents of subcontractors hired to perform any of the work under any of the contracts or who participate in any fashion under any of the contracts, or who work in any facility will be required to participate in a drug test administered by a RRP-designated representative prior to commencing any type of work, unless an approved alternative substance abuse testing program is accepted by Management.

RRP will accept the substance abuse testing cards provided by the respective worker's company, trade union, or associations pending our review and acceptance of the worker's company or trade union substance abuse program in lieu of these guidelines. Acceptance of such cards will not preclude workers from RRP's random, post-incident, medical examination, annual, and reasonable suspicion testing program.

This policy is nondiscriminatory and applies equally to all workers, management personnel, hourly craft, or temporary personnel working on RTD jobsites.

1.5.2 Rules

Possessing, soliciting, manufacturing, distributing, dispensing, and/or the use of illegal drugs, drug paraphernalia, unauthorized controlled substances, illegal use of legal drugs, and other intoxicants on or in any project or at any facility is prohibited and may result in disciplinary action up to and including suspension or termination.

Reporting to and being at work under the influence of illegal drugs or unauthorized controlled substances is prohibited. Reporting to and being under the influence of alcohol or other legal intoxicant that can adversely affect the worker's performance or the safety of the worker or those surrounding the worker is also prohibited. Violation of this rule may result in disciplinary action up to and including suspension, and/or termination.

Legally prescribed drugs may be permitted on or in any project or at any facility provided that the drugs are prescribed to the worker by an authorized medical practitioner for current use by the worker. Reporting to and being at work under the influence of prescribed or over-the-counter drug, where such use prevents a worker from performing the duties of the job, or poses a safety risk to the worker and/or other workers or property is prohibited.

Workers taking a prescription or over-the-counter drug are personally responsible for confirming with their physician that they may safely perform any job duties while taking such items.
Workers taking a legal substance that could impair their safe work must advise their immediate supervisor, who may assign the worker to non-hazardous duties or send them home. A worker's failure to notify their supervisor at the start of their work shift may result in disciplinary actions up to and possibly including termination and/or barring as described below:

- Any worker who is found to be in violation of this policy may be subject to discipline up to and including termination.
- Unusual behavior constituting grounds for drug testing may also subject the worker to discipline up to and including termination.
- The possession or use of alcohol in or on RTD or RRP property, or projects is prohibited.

Nothing set forth in this policy shall be construed as a limitation upon the right to terminate a worker at any time and upon any reason and the right of the worker to resign at any time for any reason.

1.5.3 Testing Requirements

All employees will be required to undergo a screening test for the use of illegal and nonprescription drugs, alcohol or other substances under any of the following or other circumstances which may be determined by RRP management under this policy:

Pre-employment--After a conditional offer of employment, or prior to admission to a project, an initial drug test will be required. All potential employees of all contractors at all tiers who work on this North Metro Rail RTD Fas-Tracks Project shall submit to or provide evidence of an initial drug test. The initial drug test will test for the presence of illegal/controlled drugs and substances. The drug test categories to determine a positive test result may be found in this section and will include an alcohol test. Any potential employee refusing to submit to this test will not be permitted to work on the Project until the requirements of this policy are satisfied.

Existing employees transferred from another location to work on a project covered by this policy or upon reemployment: All employees in this classification must become eligible with the Policy. Any employee who is not current with the policy will not be permitted to work on the RTD North Metro Rail Project.

Post-Accident/ Incident: If involved in a workplace incident. This would include the following; resulting in personal injury to the worker, others working in the area, damage to property, or workplace, circumstances which could have resulted in personal injury, or damage to property, or when there is reasonable suspicion to believe that the incident has occurred due to drug or alcohol use.

Return-to-Duty Testing: Employees or potential employees who have tested positive for drugs or alcohol will not be eligible for employment for a period of 90 days. After 90 days, the employee or potential employee must pass a return-to- duty test. The return-to-duty test need only be for the substance whose misuse caused the employee to be removed from service, but a return-to-duty test may be performed for both drugs and alcohol if there is reasonable suspicion of other untested drug or alcohol misuse at the time of the return-to-duty testing. Such employees will be subject, at minimum, to six unannounced follow-up tests in the first 12 months following the employee's return to duty. Additionally, such employees are subject to unannounced testing for illegal/controlled drugs and substances as well as alcohol as directed by the discretion of an approved, qualified professional in the substance abuse field.

Random Testing: A minimum annual random selection rate of twenty-five percent (25%) or as permitted by law of the workforce employed on covered jobs shall be tested. Random testing shall be site-specific. The frequency of random selections shall be monthly. The selection of employees for random testing shall be determined exclusively by Alere through its computer- generated, random-number generating program. Selection of employees for random testing shall not be conducted by any contractors or employers.
Random testing shall test for illegal/controlled drugs and substances. An employee selected for random drug testing may obtain a deferral of testing if a compelling need necessitates a deferral on the grounds that the employee is:

- On a leave status (sick, annual, administrative, or leave without pay); or
- On official travel status away from the test site or is about to embark on official travel scheduled prior to testing notification.

An employee whose random drug test is deferred will be subject to an unannounced test within the following 60 days.

Reasonable Suspicion: Employees may be tested for cause for illegal/controlled drugs and substances as well as alcohol when a reasonable suspicion exists that the employee appears to be under the influence of illegal/controlled drugs or substances and/or alcohol Reasonable Suspicion would apply when it is believed a worker has reported to work and/or is under the influence of illegal drugs, unauthorized controlled substances, alcohol, other intoxicants while on any project during work hours which could affect the safety of the worker and/or others.

Annual Testing: All employees will be tested at a minimum of once every twelve months to maintain their status as current with the Policy. An initial test, random test, for cause test, post-accident test, return-to-duty test, or follow-up test will be counted in determining whether an employee has been tested within the previous twelve months.

1.5.4 Illegal/Controlled Substances

Testing under this Policy includes tests for alcohol and:

- ✓ Amphetamines
- ✓ Barbiturates
- ✓ Benzodiazepines
- ✓ Cocaine
- ✓ Opiates
- ✓ Phencyclidine
- ✓ THC (Marijuana)
- ✓ Methadone
- ✓ Oxycodone

1.5.5 Sample Procedures

Specimen collection may occur on-site or at an off-site clinic provided no loss of wages results. Wages will be the responsibility of the employee's employer.

Each individual will, upon request, read and sign the applicable Drug Testing Chain of Custody (COC) form and may be required to provide date of birth, printed name, and day and evening contact telephone numbers.

Specimens shall be collected by only trained and authorized personnel and in accordance with the procedures set forth by the RTD, RRP and DOT Specimen Collection Guidelines. Where applicable the U.S. Department of Transportation Workplace Drug Testing Programs including, but not limited to, those procedures governing the use of split samples and those establishing a formal chain of custody will be used.

When a urine test is used a portion of the sample from the primary specimen will be screened using the EMIT test and if nonnegative, another portion from the primary specimen will be tested for verification using the GC/MS test.

A laboratory testing the primary specimen must retain a specimen that was reported with positive, adulterated, substituted, or invalid results for a minimum of one year. Within the one- year period, the MRO, the employee, or the employer, may request in writing that the laboratory retain a specimen for an additional period of time (e.g., for the purpose of preserving evidence for litigation or a safety investigation). The laboratory must comply with such a request. In the absence of such a request, the specimen may be discarded at the end of the year. If the split specimen has not been sent to another laboratory for testing, the laboratory must retain the split specimen for an employee's test for the same period of time that it must retain the primary specimen and under the same storage conditions.

Any employee who refuses to take a drug test within the meaning of this Policy will be considered to have tested positive and will be classified as not eligible for employment.

The results of a positive test will be communicated to the contractor's designated representative by the MRO. If the individual has tested positive or has otherwise become non-eligible with this Policy,

he/she will be removed from the Project immediately and paid for all hours worked. The individual will not be eligible for employment with any employer on any RTD Projects covered by this Policy, are contingent upon a negative drug test.

Upon request, the MRO will provide a copy of the positive test result to the individual.

Testing the Split Specimen: If any individual who has tested positive wishes to dispute the results of the GC/MS test, he/she may do so at his/her option by having a GC/MS test performed on the split specimen at a laboratory certified by SAMHSA (Substance Abuse and Mental Health Services Administration) of his/her choice. The MRO will have available a current list of SAMHSA certified screening facilities. The specimen will be shipped directly from the Policy administrator's laboratory to the laboratory of the employee's choice.

The cost of this test will be borne by the employee. If the results of this test are negative, the employer will reinstate the individual with full loss wages and benefits and will reimburse the individual for the cost of the test. The individual must exercise the option of a second GC/MS test within 72 hours of being notified of the positive test results. The request to the MRO may be oral, but must be followed by a written request.

The written request must be sent by the individual who tested positive to the MRO. The letter must request the MRO to have the split specimen sent to a different SAMHSA laboratory for testing. Include the name, address and phone number of the laboratory. Also include a money order in the amount specified by the MRO If the results are negative this amount will be reimbursed by the employer.

2.0 PROJECT HAZARD ASSESSMENT AND RISK MITIGATION

2.1 Project Risk Assessment – Overview

The North Metro Rail Project will consist of the construction of up to potentially 18-miles of light rail transit system. The project will generally follow an alignment similar to the existing alignment of the Union Pacific Boulder Industrial Lead. The project will entail the construction of several stations, multiple bridges, and various other structures during the multiple years of construction. During the course of the construction process it is anticipated that several known and unknown hazards will be encountered during the construction process. Hazards that are anticipated to be encountered on this project may include, in various degrees, some or all of the following:

- Working near live traffic
- Working at heights
- Working near heavy equipment
- Working near active railways
- Working with or near hazardous materials
- Working with power tools
- Chemical exposure
- Manual labor activities
- Equipment operation
- Extreme weather
- Working over or near water
- Working with or on high voltage systems
- Working in excavations
- Working in or around confined spaces
- Conducting "hot work" activities

The hazards noted above and others that may be encountered during the construction of the project will

be identified, evaluated, communicated and controlled or eliminated as much as possible. Project work tasks, conditions and project personnel behaviors will be evaluated through an ongoing process to help ensure all activities are concurrent with proper hazard evaluation and mitigation.

3.0 CONTRACTOR MANAGEMENT AND PROCUREMENT

3.1 Contractor Safety Prequalification

The contractor selection process is an important element to the completing a successful project. As a result RRP Project management is accountable for the consistent application of this process. Evaluation of a contractor's safety qualifications is a vital component of the contractor selection process. During the bidding process, the contractor must complete the Safety Prequalification Questionnaire Form, which is subsequently evaluated by RRP's Project and Safety Managers using the Contractor Safety Prequalification Evaluation Guidelines. Selecting contractors who are aligned with RRP's safety philosophy and culture provides a safer work environment and enhances the overall project execution.

The Contractor and Subcontractor Safety Prequalification Evaluation Guidelines provide a consistent tool for evaluation of the contractor's safety program. Some elements of the contractor safety program must be in place and meet strict guidelines, while other elements of the program may not be as absolute.

3.2 Drug Testing and Substance Abuse Prevention Policy Evaluation Criteria

RRP is committed to a Drug Free Work Zone and in providing a safe environment for its employees, clients, and partnering contractors. Illicit drug use and alcohol abuse constitute not only a significant danger to the safety and health of the user but also to fellow employees, contractors, and clients. As such, to further its goal of maintaining a safe, productive, and drug-free workplace, RRP maintains zero tolerance for the inappropriate use of and/or the possession of illicit, controlled, illegal drugs or alcohol in the workplace. RRP considers substance abuse screening to be part of the overall program to prevent illicit substances from entering the workplace. Such screening will be conducted in compliance with applicable federal, state, and local laws, and in compliance with RRP's contractual obligations with its clients.
Additionally, RRP has in effect and enforces drug and alcohol procedures as required by the Department of Transportation (DOT). These requirements, as well as those of other governmental regulations will supersede this program when applicable.

To help achieve this goal, RRP has implemented a Substance Abuse Prevention Program on this project that is consistent with contractual requirements.

On this project site, RRP has established as a minimum the following:

- Pre-Employment Drug and Alcohol screening
- Post Incident Drug and Alcohol screening
- Random selection screening for Drugs and Alcohol
- Reasonable suspicion or Cause screening

Substance abuse is a part of the safety audit program to ensure compliance with applicable laws, RTD's Safety Requirements and RRP's Construction & Security Safety Plan.

Although RRP Safety reserves the right to make changes without notice, we will strive to advise employees on a timely basis of any changes affecting their employment. RRP may implement additional steps, when required, to assure compliance with this Program. Such measures will be taken only after the review and approval of RRP Project and RTD management.

Nothing in this Substance Abuse Prevention Program is intended to change the employee's "at- will" employment relationship with the company. To the extent permitted by law, employees reasonably suspected of possession, use, sale, or purchase of controlled substances will be suspended without pay, pending an investigation of the circumstances.

This Program will apply to all RRP personnel and to all sub-tier contractor employees on this project as defined in the RTD Fastracks Construction Safety Guidelines and Contract language.

As part of this Substance testing policy it is required that all applicable project personnel acknowledge the policy and adhere compliance to it. As part of that acknowledgment it must be understood that no personnel, of any level, working on the North Metro Rail Project is able to sue or pursue legal action against RRP, RTD, Subcontractors or any of their respective employees in an attempt to challenge or pursue an alteration of this policy.

3.3 OCIP Requirements

3.3.1 Enrollment in OCIP

RRP and its partner contractors must enroll themselves and any lower-tiered subcontractors (all tiers) into the Owner Controlled Insurance Program (OCIP) prior to the start of their work. The enrollment process includes but is not limited to submitting the following insurance information direct to the OCIP Administrator (Marsh):

- Enrollment Form A (2 pages); List Tier Subcontractors
- Bid Deduction Worksheet Form B (2 pages)
- WC/GL/EL Rating Sheets
- Offsite Certificate of Insurance

Note: All contractors are responsible and accountable for ensuring that their lower tiered subcontractors (all tiers) are enrolled in the Owner Controlled Insurance Program (OCIP) **prior to their start of work.**

3.3.2 OCIP Submittals to RRP

RRP and tier subcontractors must submit the following to RRP prior to the start of work:

- Onsite Certificate of Insurance for each contractor; or
- Letter from Marsh indicating that a contractor is excluded from the OCIP
- If excluded, proof of other additional insurance required by RRP Contracts Group.

All contractors are responsible and accountable for ensuring that all “excluded parties” have submitted a compliant (i.e. Additional Insured, Waiver of Subrogation, and Limits) “Onsite

Certificate of Insurance" prior to their start of work.

3.4 Contractor Safety Program, Practices and Procedures

Any Sub-contractor on the North Metro Rail Project can **either**:

a. Adopt RRP's Construction Safety & Security Plan (policies, practices, forms, and processes),

or

b. Develop its own project-specific safety program/procedures (including requisite and applicable forms) and submit to RRP Construction Safety Manager for review 2 weeks before starting work.

In the event that a contractor elects to provide its own safety program/procedures, etc., it must be developed in accordance with this Construction Safety & Security Plan, and must be maintained at all times during performance of the work.

The contractor's safety program/procedures should meet or exceed RRP's Construction Safety & Security Plan that is provided as an example for the contractor's information, included "for information" in an attachment to the Request for Proposal (RFP), and provided to the contractor before bid and award. Each tiered contractor's safety program/procedures must be provided to RRP Safety for review and comment in accordance with the time set forth in the RFP and/or the contract. RRP Safety will evaluate the program contents and procedures to ensure that the program meet all necessary requirements. Upon completion of the evaluation RRP safety will return the evaluation information to the tiered contractor marked with one of the following status codes:

A – Proceed. No Comments.
B – Proceed. Change in line with comments and resubmit.
C – Do not proceed. Change in line with comments and resubmit.

Contractors will disposition comments proposed by RRP and, when required, resubmit documents in a timely manner to support "B" or "C" status before commencement of field activities. RRP's review and comment will not relieve a contractor of obligations under the contract nor constitute RRP's assumption of responsibility for the accuracy or adequacy of the contractor's safety program/procedures.

3.5 Pre-Construction Safety Meeting

Each selected sub- tier contractor will be required to attend scheduled preconstruction meeting(s) before starting work to further facilitate understanding of the project conditions and safety requirements. A worksite tour may also be required to be made and will be conducted at the discretion of RRP to confirm the contractor's awareness of potential hazards.

The pre-construction safety meeting must be attended by at least the following contractor personnel or suitable designees:

- The contractor's designated, trained and knowledgeable site safety representative
- The contractor's site project supervisor who will be on site during their activities
- The contractor's project manager who has the authority to make decisions and procure equipment or resources as needed to meet identified gaps in the contractor's safety program.

The Contractor Pre-Construction OCIP Safety Meeting Form (Appendix # 15) will typically serve as the agenda for and documentation of the preconstruction safety meeting.

It is the contractor's obligation to undertake any actions, which may be necessary or required, to establish and maintain safe working conditions. Contractors are required to provide appropriate methods, equipment, devices, and material to ensure a safe workplace at all times.

During the Pre-Construction Safety Meeting, the following will be discussed as they may be required to be submitted prior to the start of field activities:

- Proof that field employees have been adequately and appropriately drug tested (A signed letter on your letterhead indicating the date each employee was tested)
- Copy of contractor's Hazard Communication Program
- Copy of contractor's Corporate Safety Program
- Contacts: 24/7 Emergency & On-Site Safety Representative(s) & Corporate Safety Manager(s)
- WC Claims Coordinator Contact Information
- Competent & Capable Persons (on RRP form)
- OSHA 10/30 Hour Certified Workers
- 1st Aid & CPR Trained Workers
- Requirement for field persons to attend RRP Project Safety Orientation
- Completion of UPRR & BNSF Contractor Orientation Training
- Completion of Railroad Education Online Training; e-Rail Safe and BNSF Contractor
- Completion of e-Railsafe Background Check
- Security Action Plan
- Emergency Action Plan
- List of each tier subcontractor and the submittal of all the above information for each of them.

3.6 Construction Contractor Requirements

All Tier Contractors are required to:

- Hold pre-task safety planning sessions and daily briefings covering safety topics and work tasks. All safety/work meetings shall be documented and show items discussed and signed by attendees. No project personnel shall start work without a proper briefing regarding site and tasks hazards in addition to the expected controls that will be implemented to eliminate and control such hazards.
- Comply with OSHA regulations, RRP safety practices and procedures or approved equivalent, and with requirements contractually flowed down by the client.
- Comply with requirements specified in the contract.
- Provide protective safety equipment for the work for which they are responsible including safety glasses, hard hats, shoes, and other safety clothing, if required. The contractor must take care that personal protective equipment (PPE) remains in good condition by checking it on a regular basis
- Enforce the wearing of necessary protective equipment at all times by personnel and visitors on the project sites other than in areas specifically designated as "no risk" areas by RRP Site Management.

- Immediately report all injury incidents or property / vehicle damage incidents caused by contractors' employees to the RRP Safety Representative and the RRP Project/Site Manager.
- Take immediate improvement actions for hazards or defects noted during inspections by RRP or other Safety Representatives.
- Maintain the highest standards of housekeeping and keep workplaces tidy.
- Keep debris and waste materials cleared as work proceeds.
- Provide a detailed execution plan including a work method statement and risk analysis before conducting hazardous activities (such as entry into confined spaces). Any execution plan must be coordinated through RRP before work begins and copies must be made available on site so that compliance with the agreed execution plan can be maintained.
- Verify that its employees receive project orientation and other training specific for the project, and that safety information, bulletins, and work instructions are received before entering the jobsite.
- The contractor's employees must attend a safety orientation before being allowed to start work within the project location. A safety booklet will be issued to contractors as a reminder of the information presented in the orientation.
- When necessary, take disciplinary action, including exclusion from the site if necessary, of staff that violate safety procedures or otherwise work in a careless or unsafe manner.
- Provide appropriate first-line response for first aid, emergency, and fire. When further action, treatment, or ambulance is required, seek such emergency services.
- Keep registers, records, and reports up to date and properly completed and stored in a safe place.
- Understand, endorse, and comply with RRP safety & security practices and procedures (or contractor's equivalent), client safety requirements, applicable safety standards, and generally accepted safety practices. Communicate the above items to contractor supervisors and employees.
- Conduct work in accordance with the above directives.

Determine at the pre-execution planning stage the following:

- The most appropriate order and method of working, including job safety analysis (JSA) (execution plans)
- Provision of adequate lighting and safe method of electrical distribution
- Identification and allocation of responsibilities among the client, RRP contractors, and others on site.
- Hazards arising from underground and overhead services.
- Environmental aspects including endangered species, historical and archaeological resources, environmental permit conditions, pollution prevention/waste minimization, erosion and sediment control, dust control, noise, sanitary waste, water resources, landscape protection, and spill prevention and control.

3.7 During Execution of Work:

- Provide written instructions in unusual situations not covered by the project-specific safety program/procedures to establish working methods and sequence outline potential hazards at each stage, and indicate precautions and controls to be adopted.
- Understand and fully comply with client/RRP permit to work system (if applicable).
- Supervisors will be fully knowledgeable of the hazards involved in the work they supervise and the safety procedures to be followed.
- Before starting their daily task, supervisors will demonstrate and explain the safety procedures and precautions that must be taken before the employee can proceed with their designated task.
- Oversee that work, once started, is:
- Carried out as planned and that account is taken of changing or unforeseen conditions as work proceeds.
- Carried out in accordance with the applicable safety procedures and other appropriate statutory requirements.
- Reprimand members of supervisory staff for failing to satisfactorily discharge safety responsibilities.
- Take appropriate action when notified of on-site disregard of Safety Representative's advice.
- Set a personal example when visiting site by wearing appropriate protective clothing.
- Carry out necessary notifications to local authorities (such as the police) as required by local legislation.
- Carry out project entrance orientation, toolbox talks, and necessary safety training for on- site personnel.
- Take responsibility for preparation and updates of project-specific safety program/procedures.
- An inspection and certification program is required to provide assurance that materials and equipment comply with appropriate specifications. This is applicable to critical materials/equipment, such as:
- Hoisting equipment (such as lifting blocks, slings, hoisting belts, chains)
- Portable climbing materials (such as ladders and rolling scaffolds)
- Elevators for persons and materials
- Fire-fighting equipment
- Forklift trucks and other materials handling equipment
- Portable electric equipment
- Welding generators and other welding equipment
- High-pressure equipment

3.8 Specific PPE

- As part of the JHA all parties must evaluate and identify when and where specialty or specific PPE must be used. The applicable parties are obligated to maintain specialty materials/equipment/PPE in good condition to prevent serious accidents/incidents.
- Contractor must attest that the user of the materials/equipment can verify, in a simple manner, whether the materials/equipment comply with the inspection requirements.
- Carry out regular inspections of workplaces to determine whether work is carried out in accordance with project-specific HSE program/procedures and work permit requirements.
- Carry out regular task observation.

4.0 COMMUNICATION

4.1 Weekly Health, Safety or Environmental Toolbox Topics

All project personnel of any tier are required to conduct Weekly Health, Safety or Environmental (HSE) Toolbox topic meetings to increase HSE awareness on this project. The topics for these meetings must relate to OSHA requirements, the requirements of this Plan, work that is underway or immediately upcoming work.

RRP Safety will provide weekly topics if needed. Contractors may use the RRP weekly topics or may elect to conduct their own.

Every worker that attends these weekly HSE toolbox meetings, RRP's or a Contractor's, will sign their toolbox topic meeting attendance sheet as documentation of attendance. A copy of the toolbox topic meeting attendance sheet, or the Contractor's equivalent sheet, with signatures will be forwarded to RRP Safety within 5 days of conducting the meeting.

Subcontractor's workers may attend the contractor's weekly HSE toolbox meeting if a separate list of signatures identifying the subcontractor workers is maintained.

4.2 Monthly "ALL HANDS" Meeting

Each month, weather permitting, RRP will conduct an ALL HANDS meeting to discuss safety and other topics central to the construction effort. All field contractor and tier subcontractors currently working on the North Metro Rail project are required to attend.

4.3 Resolving Safety Concerns and Issues

All employees and contractor personnel will be given the opportunity to voice concerns and issues without fear of reprisal.

Employees should discuss safety issues and concerns with their immediate supervisor, as the issues and concerns become apparent. These discussions may take place during pre-job briefings, formal or informal walkthroughs, safety meetings, or may be a scheduled meeting with the supervisor.

Employees may contact their safety committee members/representative at any time to help resolve safety concerns.

Employees may contact RRP Project Safety at any time to discuss concerns. Such concerns may be provided orally, or in writing using the Hazards Elimination Form, or equal. Employees may request confidentiality or anonymity, which will be honored.

Personal stop-work authority is granted to and implemented as required by RRP employees and supported by all levels of supervision and management. (Subcontractor employees have stop- work authority in an imminent danger situation, unless their employer grants them full stop-work authority).

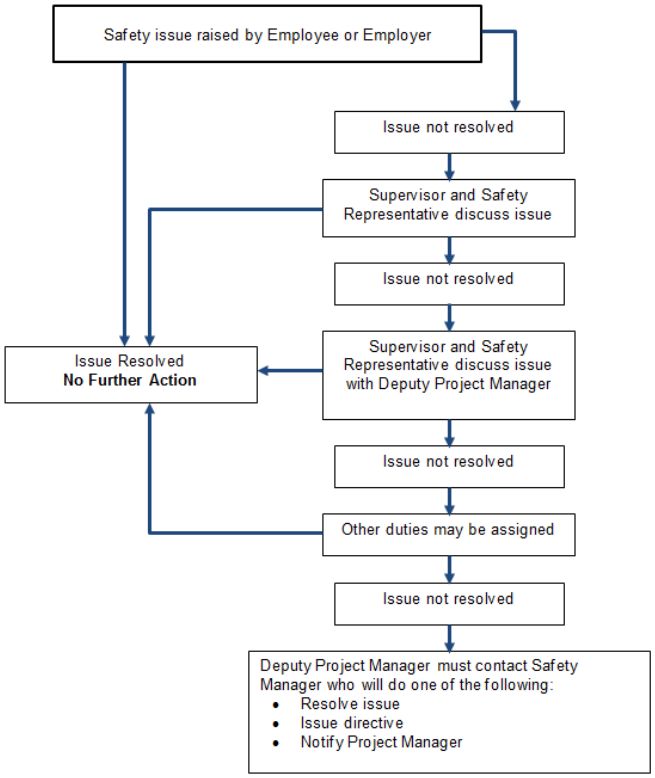
Resolution of employee safety concerns must be communicated to the employee(s).
If disagreement exists between the employee and the supervisor as to whether or not a hazard exists, or if there is disagreement over what rectification measures should be taken, the process shown in the resolving safety issues flowchart below, will be followed:

- During the course of the resolution process an employee may be reassigned to other

duties not affected by the reported hazard.

- Should a resolution not be agreed to, the issue/concern should be elevated to the next level of management or notify the RRP Construction Safety Manager.

Figure 4-1 Resolving Safety Issues Flowchart



4.4 Posting Requirements

In accordance with OSHA 1903.2 and Colorado Department of Labor & Employment, at locations where employees report each day, the following safety-related notices, forms, and signs must be posted on company information bulletin boards or in an employee-accessible central location at each work location wherever employees normally congregate:

- Emergency telephone numbers/contact persons (refer to the Emergency Action Plan)
- Map to nearest hospital (refer to the Emergency Action Plan)
- Workers' compensation information specified by Colorado requirements
- Required Colorado and Federal Government posters

Refer to list below for Colorado Posting Requirements & information.

Figure 4-2 Colorado and Federal Posting Requirements (8/2/14)

Poster	Subject	Law	Agency
Colorado Minimum Wage Order Number 30	Minimum Wage	CRS 8-6-101 et seq. Colorado Minimum Wage Order Number 30	Colorado Division of Labor 633 17th Street, Suite 200 Denver, CO 80202 (303) 318-8441 www.colorado.gov/cdle/labor
Colorado Anti-Discrimination	Civil Rights Law	CRS 24-34-301 et seq.	Colorado Civil Rights Division 1560 Broadway, Suite 1050 Denver, CO 80202-5150 (303) 894-2997 1 (800) 262-4845 www.dora.state.co.us/civil-rights/
Colorado Employment Security Act	Unemployment Insurance	CRS 8-70-101 et seq.	Employment and Training Unemployment Insurance 251 E. 12th Avenue Denver, CO 80203 (303) 318-9300 www.colorado.gov/cdle
Workers' Compensation Act	Workers' Compensation	CRS 8-40-101 et seq.	Workers' Compensation 633 17th Street, Suite 400 Denver, CO 80202 (303) 318-8700 www.colorado.gov/cdle
Notice to Employer of Injury	Workers' Compensation	CRS 8-40-101 et seq.	Workers' Compensation 633 17th Street, Suite 400 Denver, CO 80202 (303) 318-8700 www.colorado.gov/cdle
Notice of Paydays	Wage Payment Law	CRS 8-4-101 et seq.	Each employer is responsible for producing and printing necessary notices.

Poster	Subject	Law	Agency
Minimum Wage	Minimum Wage	Fair Labor Standards Act (FLSA)	U.S. Department of Labor Wage & Hour Division 1999 Broadway, Suite 2445 Denver, CO 80202-5712 (720) 264-3250 www.dol.gov US DOL Poster Guide: http://www.dol.gov/elaws/posters.htm
Employees Working on U.S. Government Contracts	Public Contracts Service Contracts	Walsh-Healy Act / Service Contract Act (SCA)	U.S. Department of Labor Wage & Hour Division
Employees Working on Federally Financed Construction Projects	Public Construction	The Contract Work Hours and Safety Standards Act / Davis Bacon	U.S. Department of Labor Wage & Hour Division
Employee Polygraph Protection	Polygraph Tests	Employee Polygraph Protection Act	U.S. Department of Labor Wage & Hour Division
Family and Medical Leave Act of 1993	Family and Medical Leave	Family and Medical Leave Act of 1993 (FMLA)	U.S. Department of Labor Wage & Hour Division
USERRA	Military Services	Uniformed Services Employment and Reemployment Rights Act (USERRA)	U.S. Department of Labor Wage & Hour Division
Beck Poster (Union Dues)	Payment of Union Dues	EO 13201	U.S. Department of Labor Wage & Hour Division
Equal Employment Is the Law	Equal Employment Age Discrimination Disability	Civil Rights Act of 1964 Age Discrimination Act of 1967	Equal Employment Opportunity Commission (EEOC) 303 E. 17th Avenue Suite 510 Denver,

		(ADEA) Americans with Disabilities Act, Rehabilitation Act of 1973	Colorado 80203-1235 303-866-1300/1301 www.eeoc.gov/
Job Safety & Health Protection Log of Occupational Illness/Injury	Occupational Safety and Health Act	Occupational Safety and Health Act	OSHA Administration Denver Area Office 1391 Speer Blvd., Ste. 210 Denver, Colorado 80204-2552 (303) 844-5285 www.osha.gov

Colorado Department of Labor & Employment Website
https://www.colorado.gov/pacific/cdle

4.5 Safety Disciplinary Action

The safety disciplinary action policy is provided to assist in the uniform application of disciplinary action for disciplining personnel who intentionally or unintentionally violate safety rules, policies or practices throughout the project. This policy outlines safety violation classifications and their penalties, and management procedures in the event of a violation.

It is the responsibility of all levels of RRP management, supervision, subcontractors and their lower tier subcontractors who are overseeing work to ensure that their employees comply with all safety and health requirements of the project. All project supervision shall keep a constant check on the methods used by employees to prevent safety violations. They have the authority to correct and instruct employees concerning the violation of safety rules and shall stop work in situations of imminent danger. Each individual employee also has the right and obligation to correct an unsafe act or condition. Each employee is responsible for his/her own safety and that of their coworkers, and undertakes to act and work in a safe manner always. Should any project personnel witness an unsafe work situation, which requires the application of the project's disciplinary program, they must bring this to the immediate attention of someone in supervision, being a supervisor, foreman, superintendent or manager.

For RRP personnel, disciplinary action will be administered in accordance with each respective company's Human Resource Policy.

For subcontractor personnel, it is the sole responsibility of the Subcontractor to administer the appropriate disciplinary action to its employees. The offender's supervisor is responsible for taking appropriate disciplinary action in the event their employee(s) fail to follow prescribed rules. RRP Construction Safety may advise or recommend the type of reprimand or discipline to be applied, but shall not administer the discipline themselves. If appropriate discipline is not forthcoming, administrative remedies as defined in the contract will be followed until appropriate corrective measures and discipline are carried out.

Disciplinary action may include depending on the seriousness of the violation:

a. Verbal documented reprimand
b. Written reprimand
c. Restriction from the site, and/or
d. Dismissal from the site or termination.

Direct supervision of the offender may also be held accountable if found to be culpable and may be subject to the same disciplinary action. All violations will be documented and confidentially filed.

Serious Safety Violations
A serious safety violation involves a substantial probability that death, serious physical harm, major equipment damage, or work stoppage could result. Employees who commit serious safety violations will be subject to their company's disciplinary action or immediate removal from the jobsite for the duration of the project. A documented verbal reprimand alone cannot be issued in this case. The table at the end of this section lists some, but not all, serious safety violations.

Other than Serious Safety Violations
Other than serious safety violations are those that have a direct relationship to work place safety and health where the exposure is not likely to cause death, serious physical harm, or major equipment damage. These safety violations will call for the utilization of a progressive disciplinary program. Removal from the project site can occur for the third violation noted. It is not necessary for the safety violations to be identical for the progressive steps of discipline to apply.

For other than serious safety violations the progressive disciplinary program will conform to the following:

First Offense: The first line supervisor will complete a verbal documented reprimand documenting the violation, and counsel the offending employee.

Second Offense: The first line supervisor will complete a written reprimand documenting the violation and the disciplinary actions and/or corrective actions to be taken to ensure the offense is not repeated.

Third Offense: Offending employee, and perhaps the employee's supervisor, may be dismissed from the project site for the duration of the project.

RRP reserves the right to immediately terminate any individual when the nature of the violation(s) or when repeated violation(s) make retention of the individual unacceptable.

If at any time you are unsure of safety conditions or procedures, stop immediately and contact your direct supervisor.

4.6 Incident Reporting

SERIOUS SAFETY VIOLATIONS	
• Failing to post warning signs and barricades under areas where debris is being dropped through holes in a structure without using chutes. • Working in an elevated position without the use and proper securing of a safety harness, when such is required. • Conscious disregard of a "DO NOT OPERATE" "DANGER," "WARNING," or "CAUTION" sign when conditions or activities endanger your life or the lives of others. • Removing another worker's lockout sign or tag without written authorization. • Using rigging equipment in excess of its recommended safe workload. • Intentionally altering a hand or power tool by removing its guard or safety mechanism. • Welding or cutting in confined spaces without sufficient ventilation or while not utilizing the appropriate respiratory protection equipment. • Welding or cutting in areas or on objects where the potential for fire or explosion is great (such as volatile material storage areas, unclear lines, or vessels containing combustible materials). • Performing work on energized circuits without obtaining proper approval or protective equipment. • Inappropriate behavior in the workplace, including, but not limited to, horseplay, fighting and threatening.	• Working around an unguarded floor or wall opening without using a proper means of fall protection. • Operating a crane (lifting, swinging, or loading) adjacent to an energized power line with less than 15 feet between power line and any part of crane. • Using an aerial lift, standing on the mid-rail of the basket with or without properly utilizing some means of fall protection. • Operating equipment in a manner that endangers the employee or others. • Working in a trench or excavation more than 5 feet in depth that has not been shored, sloped, benched, or otherwise protected from cave-in. • Walking on steel beams without using some means of fall protection when 6 feet or more above lower levels. • Gathering or stacking temporary or permanent floor planks or decking sheets (elevated access) without a means of arresting falls. • Entering a tunnel, manhole, excavation, chase, or shaft that has been classified as a permit-required confined space without testing the atmosphere or obtaining a confined space entry permit. • Excavating around underground utilities without first having a underground location survey done. • Intentional sabotage of fire extinguisher or firefighting equipment, or other emergency safety equipment rendering it useless or disabled.

All contractor incidents resulting in:

- ANY Bodily injury
- Contractor or railroad equipment damage
- Vehicle damage
- Near miss event resulting in a loss of production
- Spills greater than 1 gallon

- That may result in a general liability claim, or (i.e. damage of existing utility resulting in loss of service or damage to private property)
- That may result in a builders risk claim (i.e. damage of existing facilities)
- Any Potential 3rd Party claims

All incidents MUST be reported to the RRP Construction Safety Manager IMMEDIATELY (as soon as possible after the situation is stabilized and injuries are being tended to). In no case should the incident be reported in more than 8 hours. Failure to report incidents IMMEDIATELY may result in disciplinary action.

Unless specifically authorized, RRP and contractor personnel will not initiate nor respond to inquiries with the news media. The RRP Project Manager will decide when and if inquiries by the press are answered. This will ensure that answers are given in a factual manner with details following as soon as possible. No conclusions or opinions on cause and effect should be given or offered.

Reporting an incident is a 3 step process:

1. **As soon as possible** call Tony Bale, RRP Construction Safety Manager (office: 720-370-0917 Cell: 720-636-6622).

   Back up contact:
   2nd RRP Back up contact: Safety Manager- Bill Olsen 720-840-4044

   3nd Back up contact: RTD Loss Control Rep - Brian Rome 303-910-1970

   Calling Protocol: If there is no answer, call again right away. If we get two phone calls, one right after the other, we consider that a signal of an important phone call. If no answer, LEAVE A MESSAGE.

2. **By the end of the shift** complete the *Initial Incident Reporting Form* and fax or email the completed form to Tony Bale, RRP Construction Safety Manager (fax: (720) 259-9527; tbale@rrpjv.com)

3. **Within five (5) days** complete and submit to RRP Construction Safety Manager a *Root Cause Incident Investigation Report*.

   Additional reporting requirements for **RRP only** are detailed in Appendix 7 *RRP Only Incident Reporting Procedures*.

   As part of the incident investigation, RRP or the RTD Safety Manager may elect to conduct a more formal review of the incident and the activities surrounding it. This Incident Review Board will be scheduled and conducted by the RTD Loss Control-Safety Manager generally within 72 hours of an incident, unless arranged otherwise. The Board shall include representatives of RRP construction safety management, upper management and the involved field personnel. At the discretion of the RTD Loss Control-Safety Manager a root cause analysis may be utilized.

4.7 RRP Internal Incident Reporting Procedures

All injury and property damage incidents must be reported by RRP to RTD. Those incidents that occur on RR ROWs must also be reported to the affected RR; UPRR or BNSF.

To report an incident:

1. **As soon as possible** call Tony Bale, RRP Construction Safety Manager (office: 720-370-0917; cell: 720-636-6622). Back up contact: Bill Olsen (720-840-4044) Second back up contact : Brian Rome (303-910-1970)

   Calling Protocol: If there is no answer, call again right away. If we get two phone calls one right after the other, we consider that a signal of an important phone call.

2. **By the end of the shift –** Complete the Initial incident/ Claim Reporting Form and Fax or Email the completed to Tony Bale 720-370-0917 (fax).

Next, Tony Bale or a Safety Team Member when notified will immediately notify RRP-Internal Personnel, RTD and if applicable UPRR or BNSF as required.

When applicable following the initial notifications, RRP Safety, RRP Construction management, RRP Senior Management, RRP Public Information, and RTD will decide on an appropriate response and/or comment that is in accordance with the RRP Crisis Management Plan. (Appendix # 17)

RTD INITIAL REPORTING REQUIREMENTS

Call Brian Rome's Cell. Brian will make all further notifications within the RTD organization and OCIP Representatives.

Brian Rome – brian.rome@rtd-fastracks.com
Cell – 303-910-1970
Office – 303-299-2488
Fax – 303 – 299-2373

RRP must provide RTD (Brian Rome) a completed copy of the RTD Incident/Claim Reporting Form. General guideline for initial incident communication:

- ☐ Are there any injuries (always start with this)
- ☐ Nature of the incident
- ☐ Location of the incident
- ☐ Comment on public involvement, if applicable
- ☐ Response to the incident

RRP-INTERNAL INITIAL REPORTING REQUIREMENTS

Tony Bale or Safety Team Staff~~,~~ when notified, will immediately notify the following via email or phone:

David Trent
Dave Richmond
Ray Chaffin
Mike Salmon
Trevor Casad
Yoji Reichert
Nate Piquard
Balfour Beatty Corporate
Graham Corporate

UPRR REPORTING REQUIREMENTS and EMERGENCY PROCEDURES

General Safety Requirements

The contractor shall keep the job site free from safety and health hazards and ensure that its employees are competent and properly trained in all safety and health aspects of the job. Specifically, the contractor must ensure that:

- The railroad is promptly notified of any reportable injury (as defined by the U. S. Occupational Safety and Health Administration - OSHA) to an employee that occurs during the performance of work at the job site. The railroad must also be promptly notified of any and all inspections conducted at the work site by any federal, state or local government agency. The
- The railroad is promptly notified of any damage to railroad property.

RRP's UPRR Representative is Brad Waufle:
Office: 307-778-3315
Fax: ?
Cell: 307-631-6655
bwaufle@up.com

Emergencies

UPRR Emergency Response center is: 888-877-7267

5.0 TRAINING REQUIREMENTS

5.1 General Training Requirements

All Project Personnel will be required to complete at minimum the following:

- **RRP Project Safety Orientation (One time initially and then refreshed annually)**
- RRP requires that all field personnel attend our Project Safety Orientation. This training provides an overview of the RRP Safety and Security Plan requirements and other safety specific procedures.
- **RRP Visitor Hazard Briefing and Signed Release (if only visiting the project)**

5.2 Training Requirements for Activities on UP and BNSF Railroad ROWs

In order to ensure that each employee and contractor who may need to access the ROWs is properly and verifiably trained, has successfully completed the security background check, and has completed and filed railroad safety action plan(s) each contractor and their tier subcontractors must register at the following sites:

http://www.railroadeducation.com/development/reliant/frame_set.asp

http://www.contractororientation.com/

http://www.e-railsafe.com/

Due to the unique nature and the potential hazards present any work that will take place within or in close proximity to the Denver Union Station (DUS) will require a specific Denver Union Station safety training. This required training is held at regularly schedules times and can be set up through the RPP Safety Department or through the RPP Construction Leads in charge of the respective work areas.

5.3 RWP and E-Railsafe Website Training Guides

(See Appendix #2)

5.4 Use of Competent / Qualified / Authorized Persons

OSHA defines a "competent person" as one who is capable of identifying existing and predictable hazards in the surroundings or working conditions that are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt, corrective measures to eliminate them.

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

An "authorized person" is one who is authorized by their employer to operate specific models of powered industrial trucks such as back hoes, bulldozers, fork trucks, tractors, platform lift trucks, motorized hand trucks, and other specialized industrial trucks powered by electric motors or internal combustion engines.

Documentation of competent, qualified, and authorized persons must be made daily on the RRP Safety Task Assignment Form.

A competent person must be designated, documented in writing and be on-site when any of the following activities may be performed:

- Aerial lift trainer

- Asbestos abatement
- Cadmium abatement
- Compressed air (tunneling)
- Concrete and masonry construction (lift slab operations)
- Confined space entry
- Demolition
- Excavation, trenching, shoring
- Fall protection
- Ionizing radiation
- Ladders (portable)
- Lead abatement
- Rigging
- Roof work safety monitor
- Scaffolds
- Steel erection

A qualified person must be designated, documented in writing and be on-site when the following activities are performed:

- Crane maintenance and repair
- Excavation, trenching, and shoring design
- Fall protection system design
- Hoisting and rigging (personnel platform design)
- Scaffold design

6.0 REPORT & RECORD MANAGEMENT

6.1 Policy Statement

Recordkeeping protocols are required in order to facilitate training, implement discipline, and to initiate preventative/corrective measures for behaviors, site conditions and operational practices. All such documentation shall adhere to company guidelines as well as local, state or federal regulations regarding reporting, distribution and retention.

6.2 Records to be retained

Records that shall be maintained include but are not be limited to the following activities:

6.2.1 Hazard assessment planning

a. Team Books, SOPs, JHAs, STAs, etc.

6.2.2 Workplace / Hazard assessment inspections

a. Safety Self-Assessment Audits (job sites and facilities)
b. Post Incident Root cause analysis data
c. Corrective /disciplinary actions

6.2.3 Equipment Inspections

a. Machinery, tools

b. Personal protective equipment

6.2.4 Orientation/Training

a. New Hire training
b. On-going health and safety training

6.2.5 Incident, injury and illness reporting

a. Workers compensation claims
b. Vehicle incidents
c. Property
d. General Liability
e. Hazardous exposures to persons or the environment
f. Work zone incidents whether or not they are directly connected to site operation

6.2.6 Applicable local, state or federal forms or reports as required

a. OSHA Logs, etc.

6.3 Documentation

All records shall be documented in writing and must clearly identify:

- subject matter or description of incident;
- employee or claimant names;
- time and date of the training or activity;
- location of occurrence; the name and signature of the inspector,
- instructor or training provider.

RRP safety shall maintain master files in both hard copy and or electronic format for data analysis and to generate monthly, quarterly or annual reports as requested by regulatory agencies or executive management.

6.4 Distribution and Review

Records are to be distributed in hard copy or electronic format according to RRP, RTD, applicable regulatory agencies, and/or Corporate guidelines. Copies of all records related to occupational safety and health shall be distributed to and retained by the Construction Safety Manager and Project management. Distribution and review of records may also include but is not limited to:

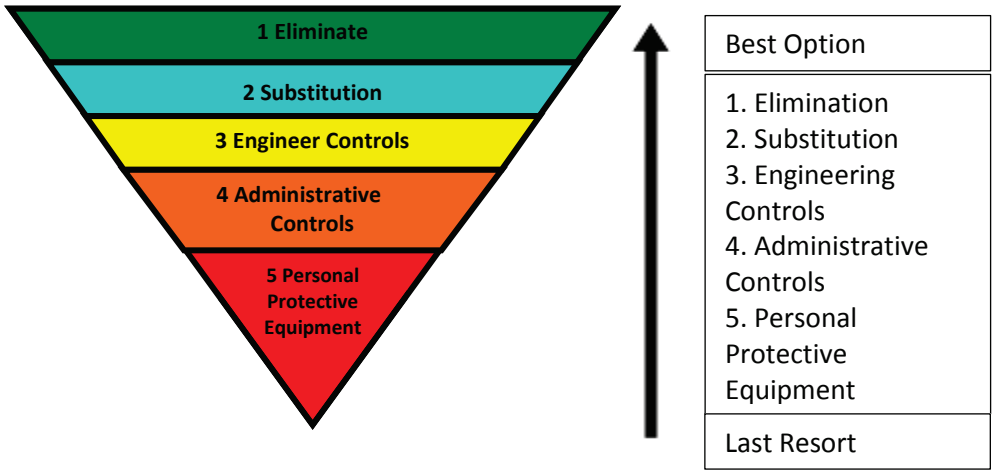
- Job site personnel
- Project management
- Project safety representatives
- District or regional management
- Regional presidents
- Executive company officers
- Executive safety committee
- Human resources
- Local, state or federal agency offices
- Insurance providers

Several types of records such as incident reporting and training records may be input into spreadsheets and software databases for future analytical evaluation.

7.0 GENERAL RULES & PROTECTIVE MEASURES

7.1 Hierarchy of Controls –

It is the intent of this project to effectively identify, eliminate or mitigate all hazards in route to accomplishing "Zero harm" on this project. Where applicable we will use the "Hierarchy of Controls" to either eliminate or mitigate any recognized hazards that may present themselves.



7.2 General PPE Requirements

Conducting work and/or field construction activities on the project including accessing the UPRR and/or BNSF right of way (ROW) require the proper use of the following personal protective equipment at all times:

Hard hat

- ANSI (Z89.1) approved
- Imprinted with the contractor's company logo
- "Cowboy hat" – type hard hats are not allowed

Safety glasses with permanently attached side shields

- ANSI (Z87.1) approved and marked on the frames
- Lenses must be distinctly marked with the manufacturer's monogram (i.e. AO) which indicates the lenses are safety lenses
- "Transition"-type tint changing lenses are allowed
- Reflective / mirrored lenses are not allowed
- Yellow or Green lenses are not allowed

Safety-toed leather work boots

- Must have a defined heel
- Must lace up, slip on boots are not allowed
- Must cover the ankle
- Safety toe may be steel or composite material
- Safety shoes that look like athletic shoes (sneakers) are not allowed

HI-VIS Reflective vest

- ANSI Class II/III high visibility garment
- ANSI / ISEA 107-2004 striping (typically, but not always, two bands of reflective material around the torso and one band over each shoulder)
- Waist length shirts with minimum 4"sleeves are okay
- Long pants that cover the entire leg are required

- **Red outer clothing is not allowed. In fact, any visible red clothing, such as t-shirts under button down shirts, etc, is not allowed**.

- **Hearing protection as required when noise levels are above 85 dB**
  - As a general rule, always have hearing protection with you when accessing the ROWs.

Note: Additional PPE may be required by the Colorado Department of Transportation (CDOT) if your activities are conducted within public, state or federal roads.

7.3 Operation of Cellular Telephones

The use of cellular phones must be "with discretion" at all times while on the project. By "discretion" we mean that the use of a cellphone must be a singular activity and must be done at least 25 feet away from any railroad tracks. Workers may not use a hand-held cellphone and conduct a second activity at the same time. For example, a worker may not:

- Use a hand-held cellphone and operate a passenger vehicle or powered industrial truck (forklift)
- Use a cellphone and operate powered or non-powered hand tools
- Use a cellphone and be within 25 feet of the railroad tracks
- Use a cellphone and be in an unsafe location (use of fall protection, on a scaffold, etc.)

Cellular phones that must be hand-held to the ear to hear/speak must not be used by the vehicle operator while operating a vehicle (whether motorized or not). In an emergency or where a call must be made or answered using this type of phone by the vehicle operator, the operator must pull off and stop at a safe location. It is recommended that vehicle operators not answer an incoming call; but, after safely pulling over, dial the person back if needs be.

"Hands-free," voice-operated or speed-dial phones with a speaker or single earpiece capability may be used by the vehicle operator, with discretion, depending on an assessment of driving conditions. Even with the voice-activated, hands-free devices, long or extended phone conversations while driving are discouraged.

7.4 Tool / Equipment Modifications

No modifications or additions that affect the capacity or safe operation of tools or equipment may be made without the manufacturer's written approval. If the manufacturer does not approve modifications or changes, written approval from a registered professional engineer may be considered. If such modifications or changes are made, the capacity, operation, and maintenance instruction plates, tags, or decals must be changed accordingly.

7.5 No Working Alone on the ROW

No one is allowed to go out on the ROWs alone by themselves; you are required to employ the buddy system and have a working communication system with which your Emergency Action Plan can be fully engaged.

7.6 Personal Jewelry

Finger rings, bracelets, necklaces, and dangling-type jewelry (such as earrings) must not be worn when operating powered tools or equipment. Dangling earrings are defined as an earring that extends outside of or below the earlobe perimeter.

Exception: Medic alert bracelets or necklaces.

Rings should not be worn by employees who climb as part of their routine job functions/activity.

Electrical engineering, maintenance electrical employees, or other classifications performing as primary duties electrical work in panels or on high-voltage systems must not wear any type of metal wristband.

7.7 Exclusions to Construction Safety & Security Plan

In the unusual circumstance where a safety requirement or assignment is not feasible, inappropriate for the specific and unique situation, or presents a greater risk to the employee, a written justification for exclusion must be submitted to the RRP supervisor responsible for the work and the RRP Safety Representative for review.

A written justification from a subcontractor requires additional approval of the assigned contracts engineer/administrator.

Once the justification is approved, the exclusion is included in the Job Hazard Analysis portion of the Safety Action Plan and / or the Safety Task Assignment Form (STA), as applicable, and all affected employees are informed during a pre-job briefing.

7.8 Gen. Safety Requirements for Railroad ROW Work

7.8.1 Policy Statement

RRP is committed to providing the safest workplace for our personnel our subcontractor personnel and the public. Adherence to these minimum safety requirements, plus additional instructions at the job site, will help to ensure an injury free project. The railroad personnel in charge (EIC) is authorized to take any actions necessary to prevent injuries to any person, damage to railroad property, or disruption of railroad operations. It must be understood that railroad safety takes priority over all other considerations, including production, project deadlines and quality.

7.8.2 Authority to Work on Railroad Property

Before working on railroad property, RRP and Subcontractors must:

- Have a valid right of entry agreement from the railroad owner.
- Notify the railroad representative at least 48 hours prior to commencing work on railroad property and at least 24 hours prior to commencing work that will require any person or equipment (including boom extensions) to be closer than 25 feet to any track.
- Ensure that all personnel have received the required training for the work to be performed.

7.8.3 Clothing Requirements

All RRP personnel and subcontractor personnel to RRP will be suitably dressed to perform their respective duties safely and in a manner that will not interfere with their vision, hearing, or free use of their hands or feet.

Specifically, all personnel working on a railroad right of way must wear the following:

- Waist length shirts with sleeves.
- Pants that cover the entire leg.
- All leather steel toe/composite toe industrial work boots are required to be worn in all work areas. Leather uppers must be at least 6in in height.
- No open toed shoes/sandals or athletic style shoes are allowed.
- Personnel must not wear loose or ragged clothing, neckties, finger rings, or other loose jewelry while operating or working on machinery.

Orange reflective clothing

- Both UPRR and BNSF provide very specific instruction on what **ORANGE** reflective clothing is considered acceptable. Yellow or lime-green is NOT acceptable. The reflective clothing must be your outermost layer of clothing and must meet ANSI type II or type III and have ANSI / ISEA 107-2004 striping. Choose clothing or vests that are orange with silver reflective striping.
- Photos of acceptable and NOT acceptable clothing is presented below:

7.8.5 Personal Protective Equipment

All personnel and subcontractor personnel to RRP will be required to wear personal protective equipment as specified by this Construction Safety and Security Plan. Protective equipment to be worn when working on or near the vicinity of a railroad will be as follows:

- Hard hat that meets American National Standards Institute (ANSI). Hardhats shall be affixed with the RRP or Subcontractors logo, employees name, RRP orientation, and RWP training notification stickers.
- Eye protection that meets the ANSI Z-87.1 standard for occupational eye and face protection. Safety glasses must be equipped with side shields. Additional eye protection must be in place that meets the specific job situations such as welding, grinding, burning, etc.
- Hearing Protection that affords enough attenuation to give protection from noise levels that will be occurring on the job site. Hearing protection, in the form of ear plugs or ear muffs must be worn when personnel are within the following guidelines:
- 100 Feet of a locomotive or roadway / work equipment
- 15 feet of power operated tools
- 150 feet from a jet blower or pile driver
- 150 feet from retarders in use (when within 10 feet personnel must wear dual ear protection – ear plugs and muffs).

Fall protection shall comply with Federal Railroad Administrations (FRA) Bridge Workers Safety Regulations when working on railroad bridges and OSHA's Fall Protection Regulations when working on all other elevated structures.

7.8.6 On-Track Safety

All personnel and subcontractor personnel to RRP shall have the responsibility to comply with the FRA's Roadway Worker Regulations and the railroad owners On Track Safety Rules. When applicable RRP will provide and/or coordinate applicable required training regarding these regulations.
All RRP personnel and Subcontractor personnel must:

- Maintain a distance of at least 25 feet to any track unless the railroad's EIC is present to authorize movements. The railroad EIC will determine and provide the type of On-track Safety that is required for the work to be performed.
- Wear orange fluorescent colored reflective vests approved by the railroad's EIC when working within 25 feet of any track.
- Cell phones are not permitted to be used within 25-ft of the tracks. Move away to make or take calls.
- Participate in a job briefing during which the railroad's EIC will specify the safety the safety requirements for work being performed. RRP personnel and subcontractor personnel must take special note of limits of special instructions relating to the work zones around machines and minimum distances between machines while working and traveling on/near tracks.
- No Smoking on Railroad Property as per Railroad Rules and FRA regulations.

7.8.7 Railroad Access Notification Requirements

When your activities require you to access the UPRR and/or the BNSF rights-of-way (ROW) you must provide them notification. Every reasonable effort must be made to provide UPRR and/or the BNSF **3 weeks** advance notification. **Plan your schedules accordingly**. Procedure for notification is:

- **FIRST:** Confirm that all those who will be accessing the ROW:
  - Have completed the above training requirements and security background check within the last year
  - Have their ID badges that serve as proof of current training
  - Have completed the background security check
  - Have their ID badges that serve as proof of successfully completing the background security check
  - Have the required PPE
- Contact RRP Construction Group to determine whether or not your activities will require the support of RR Flaggers. If flaggers will be needed, Alan Brown or Dave Trent will make the arrangements to have them on site.
- RRP Personnel will make the actual notification and coordinate UPRR and BNSF work activity. Work must be scheduled and Railroads notified at least **3 weeks** in advance of your access of their ROW.
- Under changing conditions, you may update your notification to UPRR and/or the BNSF

48 hours in advance of your access of their ROW. Under no circumstance should you provide less than **24 hour** advance notification.

To Notify UPRR and / or BNSF:

Contact RRP Construction Group Leads or Tony Bale **3 Weeks** in advance of your access of their ROW with the following information. RRP Construction Group will make the notifications.

- Your name and phone number
- The name of the company that will be accessing the UPRR or BNSF ROW
- Dates and times you will be working on the ROW
- Location where you will be working (be specific – railroad mile post references are strongly preferred)
- What activities you will be doing on the ROW
- If Construction Group Leads or Tony Bale cannot be reached, call Tony Bale, RRP Construction Safety Manager (720-636-6622). If neither the construction group leads, Tony nor Bill can be reached, call Dave Richmond at his office (7203700579) and leave the above information in a clear and easy to understand manner.

7.9 Security Plan

It is the intent of RRP to prevent excessive loss and unnecessary exposure to the public and to prevent

theft, vandalism and damage to property and equipment during construction of the project. RRP personnel will work with project partners, stakeholders, and the public to ensure that hazards are recognized and addressed where applicable.

RRP will discuss site security plans with all subcontractors during pre-construction meetings and throughout the construction process. As an example these plans may include and consider the following:

- Protection of the public
- Work area security
- Theft protection
- Tool and Equipment Security
- Prevention of Vandalism and graffiti
- Fencing and signage
- Parking
- Visitor sign in page
- Emergency access
- Site Emergency Control Plans
- Notification procedures

8.0 SAFE WORK PRACTICES

8.1 TeamBooks

Team Safety Focus should be completed in advance of the work being performed. The Team Book process should b e included the foremen, supervisors and all employees who will actually perform the work task(s). During the TeamBook planning, the work scope is validated and verified, including materials, special equipment, logistics and security needed to complete the task safely. The completed TeamBook should consider environmental and workplace factors that may impact the safety completion of the task. Using the TeamBook should provide a crew an opportunity to observe physical hazards and other factors that may expose a worker or worker(s) to an injury.

8.1.1 Pre-Task Planning / Daily Safety Planning Sheet

The Daily Safety Planning Sheet is the process of identifying and communicating to each employee the task steps to be completed, the hazards and risks associated with the task, and the safe work practices that are to be applied to complete the task safely and in an environmentally acceptable manner.

The Daily Safety Planning process is documented on the daily safety planning sheets within the team book and includes the following sections:

- Safety Hazards
- Involved Crew Members
- Required Personal Protection Equipment
- Permits / Tags / Signs / Documents Required
- Employee Certifications Required
- Assignment tasks / Task Hazard Identification / Hazard Control Methods

- Supervisor and Employee Accountability

It is the responsibility of each contractor's Project/Site Management to verify completion of the Team Book process on a daily basis. It is the supervisor's responsibility to conduct the Team Book process daily with his/her employees before each new work assignment.

The Team Book process works as follows:

a. The supervisor and/or crew receives the day's job/task assignment
b. The supervisor reviews the day's job/task assignment and completes the Daily Safety Planning form documenting the hazards to which employees may be exposed while conducting the day's job/task assignment
c. A Daily Safety Planning meeting is conducted with the employees who have been assigned to perform the work tasks.
d. Each step of the assignment's task will be reviewed with the employees, all potential hazards will be identified, and control methods to eliminate or mitigate the hazards will be discussed and documented
e. Safe work practices, PPE, permitting needs and task competency requirements will be reviewed and discussed with the employees.
f. The supervisor is responsible for providing all required PPE and other equipment necessary for the safe completion of the task in the work area.
g. The supervisor completes the Daily Safety planning sheets Each employee assigned to perform the task will sign the Daily Safety Planning sheet form indicating awareness of the task at hand, its potential hazards, safe work practices, and required PPE.
h. The Team book form will be (readily available) in the work area until the end of the shift or until the task is completed.
i. The supervisor will monitor the job/task as it begins and periodically revisit the work location to monitor working conditions and compliance with the Team Book / Daily Safety Planning requirements.

While performing the job/task, if additional employees are assigned to the work team, the supervisor must review the Daily Safety Planning information with those employees, and their signatures must be added to the Team book.

The Post-Shift section of the Daily Safety Planning form will be completed at the end of shift or at task completion.

The supervisor will review and complete the Post-Shift with each employee. All safety concerns/problems that occurred during the assignment must be recorded on the Daily Safety Planning sheet. Each employee will sign the post-shift indicating that they have reviewed and agree with the listed comments. When the job/task is completed, the Team Book will be submitted to Project/Site Management for retention.

Service providers, such as truckers and street sweepers, whose time on site is limited, do not need to work in and around on-going construction activities and / or whose activities are governed exclusively by their own safety procedures do not need to complete a daily safety planning sheet.

Those who conduct construction support activities in and around on-going construction activities involving typically small one or two person crews, such as the Environmental Coordinators, should sign the STA for the construction activities they are working in and around.

8.2 Underground Utility Location

One of the most important elements of the pre-job planning is the location of all underground utility services. Overhead hazards and utility lines will be assessed at the same time as underground utility services.

8.2.1 State of Colorado Requirements for Underground Utility Location

Colorado SB 93-155 requires that anyone that engages in any type of excavation must provide advance notice to the underground facility owners. The notice must be at least two business days, not including the day of the call, prior to any excavation.

"Excavation" means any operation in which earth is moved or removed by means of any tools, equipment, or explosives and includes augering, backfilling, boring, ditching, drilling, grading, plowing-in, pulling-in, ripping, scraping, trenching and tunneling.

The State of Colorado has established the Utility Notification Center of Colorado (UNCC) as a messaging center between excavators and underground facility owners for locate requests when excavation activity is needed.

Procedures for "Normal" notifications, "Emergency" notifications and "Damage Notifications" can be found here:

http://www.uncc2.org/web/pdf/excavator_handbook_english_2007.pdf

8.2.2 UPRR and BNSF Requirements for Underground Utility Location or ROW

To obtain BNSF locates RRP Project Management and UPRR Locates contact the RRP Construction leads for the respective areas for further information prior to any excavation activity on RR ROWs.

Be advised that RR underground facilities may not be located by the Utility Notification Center of Colorado's services

a. To obtain Fiber Locates through UPRR contact 1-800-336-9193 (responsibility of every subcontractor performing excavation)

b. To obtain locates through BNSF contact RRP Railroad Representatives or BNSF Track Master

- **Damage to any Utility on UPRR ROW Contact 1-888-877-7277 immediately**
- **Damage to any Utility on BNSF ROW Contact 1-800-832-5452 immediately**

Figure 8-1 Railroad Notification Matrix

For additional information on different required notifications specific to activities on railroad ROWs refer to the Railroad Notification Matrix below.

RAILROAD NOTIFICATION MATRIX (updated Oct 26, 2010)			
Notification	**BNSF Railroad**	**Union Pacific Railroad**	**Notes**
Right of Entry Agreement	Prior to Start of Work	Prior to Start of Work	
Right of Entry Agreement Termination	Expires at close of contract	10 Days Notice	Written Notice
Notification of Start Work	30 Days Notice	10 Working Day Notice	
Notice of Flagmen Required	15 Days Notice	10 Working Day Notice	
Notice of cessation of Flagmen	5 Days Notice	5 Days Notice	
Notification of Blasting	7 Days prior and copies of Blasting Plans	Prior Approval Required	

RAILROAD NOTIFICATION MATRIX (updated Oct 26, 2010)			
Notification	**BNSF Railroad**	**Union Pacific Railroad**	**Notes**
Notice of New Employees	Every Employee	Every Employee	All employees working on Class I railroad property must be approved through www.e-railsafe.com, and complete orientation at contractororientation.com.
Damage to Railroad Property	Immediately Call 1(800) 832-5452.	888-uprrcop / 888- 877-7277	
Notification of Exavation	Call Trackmaster before digging on RR ROW.	Call 1-800-336-9193 Before digging on RR ROW	Must verify all Railroad utilities are clear of excavation prior to digging. (Estimate 5 to 10 days' notice for UP and BNSF RR.)
Notice of Hazard Wastes Release	1(800) 832-5452	888-uprrcop / 888- 877-7277	All Hazardous Wastes
Notice of Spill on RR ROW	1(800) 832-5452	888-uprrcop / 888- 877-7277	Petroleum Products or other pollutants
Non-Employee Injury Reporting	Fax in Report 1(817) 352-7595 close of shift same day	888-uprrcop / 888- 877-7277	
Notice of Excavation near tracks (within 25 feet)	Prior approval required	Prior Approval Required	**BNSF:** For any bridge demolition and/or falsework above any tracks or any excavations located with any part of the excavations located within, whichever is greater, twenty-five (25) feet of the nearest track or intersecting a slope from the plane of the top of rail on a 2 horizontal to 1 vertical slope beginning at eleven (11) feet from centerline of the nearest track, both measured perpendicular to center line of track **(UPRR Requirements may be similar).**
Notice of Demolition of	Prior approval required	Prior Approval Required	**Same as above**

Key Contacts
UPRR Emergency Response center is: 888-877-7267
During Long Haul Fiber, report injuries to Clarence Styvar cell: 402-203-8732 clstyvar@up.com

BNSF Emergency Number: Contact BNSF Rep,Rafer Nichols
RRP BNSF Rep: Rafer Nichols office: 303-480-6586; cell: 817-471-6614

8.3 Work Zone Safety / Traffic Control

A work zone is an area of a public road or highway with construction, maintenance, or utility work activities. A work zone is typically marked by signs, channelizing devices, delineators, pavement markings, and/or work vehicles. It extends from the first warning sign or rotating/strobe lights on a vehicle to the END ROAD WORK sign or the last temporary traffic control device.

Work zone safety must be conducted in accordance with the site specific Traffic Control Plan (TCP) or, if there is no TCP, the provisions of the *Manual on Uniform Traffic Control Devices for Streets and Highways* (MUTCD) and the CDOT *Supplement to the MUTCD*, pursuant with Section 35.0 "Traffic Control in Work Zones" of the RTD Fas-Tracks Construction Safety Guidelines, to sections 42-4-104 and 42-4-105 of the Colorado Revised Statutes.
Current MUTCD and CDOT Supplements can be downloaded at the site below.

http://www.coloradodot.info/library/traffic/traffic-manuals-guidelines/fed-state-co-traffic-manuals/mutcd

8.4 Eating, Drinking, Washing and Sanitation Facilities

8.4.1 Eating Facilities

The location of eating facilities will be identified at the start of any project/site. Eating facilities will be located in areas that will allow employees to eat without exposure to work activities, chemicals, fumes, or airborne contaminates from nearby process or operations activities.

Designated eating facilities must be kept clean and orderly at all times. Debris and food scraps will not be allowed to accumulate anywhere on the project site. An adequate number of waste receptacles will be provided, which will be of appropriate construction and equipped with snug-fitting lids for the purpose of minimizing the attraction of insects, mice, and other vermin. All waste receptacles will be emptied daily.

The use of torches, space heaters, and other heat-producing devices not intended for heating or cooking food should not be used for heating or cooking food.

8.4.2 Drinking Water

An adequate supply of potable drinking water must be available in the work areas at all times. Portable containers used to dispense drinking water must be capable of being tightly closed and sealed.

These containers must be designed, constructed, and serviced so that sanitary conditions are maintained.

Employees will not be allowed to dip from any drinking water container. Containers used to

store or dispense drinking water will be clearly marked as to the nature of its contents and the date of the water, and must not be used for any other purpose.

Common/shared drinking cups are prohibited. Where single-service cups are supplied, a sanitary container for the unused cups and a receptacle for disposing of the used cups will be provided.

8.4.3 Washing Facilities

Hand washing facilities for employees will be appropriately provided throughout the site where necessary and practical.

8.4.4 Toilet Facilities

Project/Site Management will provide sanitation services for all toilet facilities used employees, to include cleaning and servicing on a scheduled basis that will prevent the facilities from becoming unsanitary and unusable. Toilets will be provided for employees according to the following:

Number of	Minimum Number of Facilities
20 or fewer	1
20 or more	1 toilet seat and 1 urinal per 20 employees
200 or more	1 toilet seat and 1 urinal per 50 employees

Each portable toilet facility must include both a toilet seat and a urinal.

8.5 Excavations, Trenching and Shoring

Excavation, trenching and shoring activities must be conducted in accordance with the requirements of this Plan; OSHA 1926, Subpart P; and the Union Pacific Guidelines for Temporary Shoring:
http://www.uprr.com/aboutup/operations/specs/shoring/01.shtml

8.5.1 Call to Identify Buried Utilities or Structures / Overhead Hazard Assessment

Before commencing work on any excavation or trench, underground utilities must be located in accordance with this Plan. Overhead hazards must also be assessed and dealt with at this time. Refer to Section XV.3 of this Plan, *Underground Utility location.*

8.5.2 Excavation Competent Person

A competent person is an individual who is capable of identifying existing and predictable hazards or working conditions that are hazardous, unsanitary, or dangerous to employees and who are authorized to take prompt corrective measures to eliminate or control these hazards and conditions.

Each contractor conducting excavation, trenching or shoring activities must document their Competent Person in writing. The documentation of the excavation Competent Person is made by the Contractor Project Manager. The Competent Person must be on-site during all operations relating to the open excavation. Excavations and trenches, as well as adjacent areas, must be inspected by a Competent Person before work commences on every shift, after every rainfall, as soil conditions change, and as needed throughout each shift where employee entrance into the excavation can be reasonably anticipated.

If any of the following conditions exist, the necessary safety precautions must be taken before any work in that section of the excavation or trench begins/continues:

- Possible slides or cave-ins
- Indications of failure of protective systems
- Hazardous atmosphere
- Other hazardous conditions

8.5.3 Water Accumulation

Employees will not work in excavations where water is accumulating unless adequate precautions are taken to protect them against the hazards posed by water accumulation. If water accumulation is controlled or prevented by water removal equipment, the Competent Person must monitor the removal activities to ensure proper operation.

8.5.4 Endangered Adjacent Structures

If an excavation or trench endangers the stability of buildings, houses or walls; shoring, bracing, or underpinning will be provided. Excavations and trenches that are adjacent to backfilled excavations or trenches, or subject to vibrations from railroad or highway traffic, or the operation of machinery (such as shovels, derricks, cranes, and trucks), must be made safe by a support system, shield system, or other protective systems (such as sheet pile shoring or bracing)

8.5.5 Consult Applicable OSHA Standards

Applicable OSHA standards for excavation and trenching (OSHA 29 CFR 1926, Subpart P) detail additional requirements for other items and circumstances, some of which include:

- Structural ramp requirements for access and egress (personnel or equipment)
- Water removal from excavation
- Protective system damage
- Manufacturer's approval to deviate from standards
- Support system removal

8.5.6 Barricades

Open excavations must be protected by barricades. Excavations that will remain open when no one is on site, such as at night, must be protected by substantial, rigid physical barricades capable of withstanding accidental contact by an adult. Some examples include but are not limited to chain link fencing or wooden police-type barricades.

Contaminated Soil / Hazardous Materials Air monitoring and/or soil testing may be required if the excavation disturbs contaminated soil. Refer to the RRP Hazardous Materials Management Plan for additional details on requirements.

8.5.7 Soil Classification

When using protective systems, each soil and rock deposit must be classified by a Competent Person as "Stable Rock, Type A, Type B, or Type C." The classification will be made based on the results of at least one visual and at least one manual analysis conducted by the Competent Person.

Manual tests will consist of soil plasticity dry strength, thumb penetration, pocket penetrometer, or result from a hand-operated shear vane. Manual tests will be documented, signed, and dated by the Competent Person conducting the test(s).

All soil on the North Metro Rail Project unless noted otherwise by appropriate measures will be considered "Type C" in order to instill the greatest protection level possible while working in trenches and excavations.

8.5.8 Confined Space

All trenches and excavation 4 feet or deeper will be assessed regularly for designation as a confined space in accordance with the Confined Space Entry section of this Plan. Designation, air monitoring, emergency preparedness, training, and other confined space entry requirements will be implemented based on entry permit requirements.

8.5.9 Excavation Permit

An excavation permit must be issued by an Excavation Competent Person for all excavations. (See Appendix #18)

8.5.10 Protection of Employees

Each employee in an excavation must be protected by adequate and approved protection systems. Protection systems must have the capacity to resist all loads that are intended, or could reasonably be expected, to be applied or transmitted to the system.

Sides, slopes, and faces of all excavations will be scaled, benched, rock-bolted, wire- meshed, or secured by other approved equally effective means. Portable trench boxes or sliding trench shields may be used instead of shoring or sloping. Such boxes or shields must be of strength at least equivalent to the sheeting or shoring that would be required for the composition of the soil or material in which the trench is being made. The requirements below, for the appropriate option, must be followed and properly documented.

The protection systems for excavations more than 20 feet deep must be designed by a Registered Professional Engineer (RPE). A copy of the RPE-approved design must be submitted to RRP before excavation work begins.

Employees must be protected from excavated or other materials and equipment that could pose a hazard by falling or rolling into excavations. Protection will be provided by placing and keeping such materials or equipment at least 2 feet from the edge of the excavation, by the use of retaining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations, or by combination of both.

8.5.11 Sloping/Benching System

The slopes and configurations of sloping and benching systems for excavations 5 feet to 20 feet in depth must be selected and constructed in accordance with the following requirements:

Soil or Rock Type	Maximum Allowable Slope (Horizontal Allowable Slope)
Stable Rock	Vertical (90° sides)

Type A	3/4 foot to 1 foot (53° sides)
Type B	1 foot to 1 foot (45° sides)
Type C	1-1/2 foot to 1 foot (34° sides)

Note: *Simple slope excavations in Type A soil, which are open 24 hours or less (short-term) and which are 12 feet or less in depth, will have a maximum allowable slope of 1/2 H:1V (63°).*

Note: *Simple slope excavations in Type A soil, which are open 24 hours or less (short-term) and which are greater than 12 feet in depth will be 3/4 H:1 V (54°).*

Note: *No soil classification is required if 1-1/2 foot to 1 foot (Horizontal to Vertical) or 34° slope is used. If a 1-1/2 foot to 1 foot (Horizontal to Vertical) 34° is not used, a soil classification must be made.*

Designs of support system, shield system, and other protective systems will be selected and constructed in accordance with this Plan and applicable standards.

8.5.12 Access

In trenches 4 feet or more in depth, ladders, steps, ramps, or other safe means of access/egress will be provided and located no more than 25 feet apart laterally. If ladders are used, the ladder will extend 3 feet above the original surface of the ground and must be secured.

Walkways, ramps, or bridges with standard guardrails will be provided at all excavations and trenches where employees may cross over. The crossing structure will be made of tightly secured and uniformly sized planking or other similar material.

8.5.13 Equipment

When mobile equipment is used or permitted to operate adjacent to excavations or trenches, barricades or "stop" logs will be provided. Wells, pits, shafts, trenches, or other similar ground fall hazards will be barricaded or covered. No one will be allowed under loads handled by mobile equipment (such as shovels, derricks, or hoists), or near vehicles being loaded by mobile equipment.

8.5.14 Dust

Airborne dust will be kept to a minimum by the use of water or other means.

8.6 Heavy equipment and Light Vehicles Operation

The use of powered industrial trucks and light vehicles must be conducted in accordance with the requirements of this Plan and OSHA 1926.602 and 1910.178.

Powered industrial trucks include but are not limited to the following:

- Backhoes
- Dozers
- Front-end loaders
- Road graders
- Excavators
- Scrapers (pans)
- Skid-steers
- Earth movers
- Forklifts
- Rough Terrain cranes

- Concrete pump trucks
- Vibrating compactors
- Water carts/trucks
- Roller

Light Vehicles include but are not limited to the following:

- Automobiles
- Trucks less than 2 tons GVW
- Utility or All-Terrain Vehicles
- Motorized and electric carts (including "golf" carts)

8.6.1 General Requirements

a. Operators and ground employees who may be working near machinery must be trained in, understand, and practice safe operation/maintenance procedures for equipment/vehicles.

b. Gasoline or diesel fuel will not be used for cleaning parts.

c. Firefighting and first-aid equipment must be conspicuously located near equipment/vehicle operations and readily accessible at all times

d. Employees are prohibited between machines and trailing equipment when maneuvering to connect them; the tongue or hitch of trailing equipment must be blocked to align it with the drawbar or hitch.

e. Equipment/vehicles or parts thereof that are suspended or held aloft must be substantially blocked to prevent falling or shifting before employees are permitted to work under or between them.

f. Employees on foot must not approach equipment/vehicle until the operator is signaled and acknowledges the location of the approaching employee(s).

g. Employees must not ride in or work from excavator or backhoe/loader buckets.

h. Employees must not stand under suspended loads or suspended machine components such as the boom, arm, or bucket.

i. No modifications or additions that affect the capacity or safe operation of equipment/vehicle will be made without the manufacturer's written approval. If the manufacturer will not approve modifications or changes, written approval from a registered profession engineer must be obtained. If such modifications or changes are made, the capacity, operation, and maintenance instruction plates, tags, or decals must be changed accordingly.

j. Light vehicles with an obstructed rear view must be equipped with a rear signal alarm.

k. In congested areas, isolated areas with a concentration of employees (such as concrete pours), or significant equipment/vehicle movement areas (such as in the vicinity of stockpiles), flaggers and/or spotters must be used to coordinate equipment/vehicle and pedestrian movement.

l. Operations that require two or more pieces of equipment to complete the task such as moving or lifting should be evaluated for hazards and controls regarding the specific task(s).

8.6.2 Inspections

a. Large equipment/vehicles received for use (through purchase, contract obligations, or rental) must receive an initial inspection before placing into operation to verify that there are no mechanical defects or safety deficiencies.

b. If the equipment/vehicle warrants service or repair, it will be rejected (before unloading/use) and returned to the lessor or owner. The lessor/owner will be notified before such action and, if possible, be allowed to make necessary repairs at his/her own expense. Management/supervision and the Safety Representative will be part of this decision-making process. A photocopy of the inspection report, noting all deficiencies will be transmitted to the lessor/owner.

c. When the equipment/vehicle becomes damaged or in need of repair, a documented inspection is completed before the equipment/vehicle is returned for use. This inspection will include reviewing prior inspection forms to ensure corrective actions have been completed.

d. Before use on each shift, the operator will complete a walk-around inspection of the equipment/vehicle to verify that the unit is in an operable condition.

e. If a deficiency has the potential for causing bodily injury to the operator/driver or ground employees, the equipment/vehicle must be tagged with a *Danger – Don't Use It – Unsafe Tag*, to avoid operation. The supervisor must be notified when the equipment/vehicle is tagged out of service.

Figure 8-2 Sample Inspection Tag

An example sample tag that may be used:

Large equipment/vehicles (except automobiles and "pickup" trucks) will receive a documented, daily pre-use inspection on the applicable form described below.

Deficiencies will be fully explained in the Comments section of appropriate form. Corrective actions will also be noted on the form, before the equipment can be used in the field.

8.6.3 Equipment/Vehicle Operators

To operate/drive motorized heavy equipment or a light vehicle (hereafter referred to as equipment/vehicle), employees must, at a minimum:

- Be certified by their employer in accordance with OSHA 1910.178(l). Proof of certification will be provided to RRP upon request.
- Be evaluated by their employer at least within the last 3 years in accordance with OSHA 1910.178(l). Proof of the evaluation will be provided to RRP upon request.
- Have a valid state/country driver's license.
- Be designated by their employer as competent to drive each type of vehicle being driven. Proof of this designation will be provided to RRP upon request.
- Be mentally alert and possess the physical ability to drive a motor vehicle safely.
- Display a responsible attitude.

All restrictions of the employee's state driver's license are automatically applicable to operating equipment/vehicles.

An employee must carry his/her state driver's license on his/her person while operating equipment/vehicle that is capable of being operated on public roads and must display it upon request to authorized persons:

- A copy of such license and endorsements must be maintained in the employee's personnel file.
- The employee will not operate equipment/vehicles on or off the project/site after his/her state driver's license is suspended, revoked, or otherwise affected.

Personal protective equipment worn by drivers/operators is the same as that required in the PPE Requirements section of this Plan except for the following.

- Hard hats are not required to be worn when inside a vehicle equipped with fully enclosed cab.
- Hearing protection may or may not be required when inside a vehicle equipped with fully enclosed cab. Sound level pressure measurements may be required to confirm or refute the need for hearing protection when operating powered industrial trucks.
- Safety glasses must still be worn when inside a piece of equipment that is equipped with fully enclosed cab if the potential exists for debris to enter the cab.

The proper use of seat belts or other manufacturer installed restraints is required at all times when operating equipment/vehicles equipped with these devices.

If a truck is noticed to be deficient during operation, the operator/driver must cease operation and contact the immediate supervisor; do not operate until proper repairs have been made if the deficiency involves the parking or service brakes, the driver safety restraints or the steering.

Refer to the section in this Plan, Working Near Overhead Power Lines.

8.6.4 Standard Equipment

Equipment/vehicles will be equipped with the following items, where applicable:

- Operator's manual
- Log book (if applicable)
- Pre-start checklist record booklet or forms

VHF or UHF radio compatible to operating frequencies, if applicable

No equipment/vehicle may be operated without fully functional safety devices.

Equipment/vehicles with ROPSs must also be equipped with seat belts or restraints to be worn by the operator/driver while the unit is in operation.

8.6.5 Maintenance

Equipment/vehicles must be maintained in accordance with the manufacturer's maintenance requirements; records of maintenance must be developed, retained and be made available upon request.

8.7 Cranes and Rigging

Crane and rigging activities must be conducted in accordance with the requirements of this Plan and applicable OSHA regulations.

Prior to the commencement of work using hoisting equipment on the work site, the Contractor will provide to RRP Safety the following for each individual crane and crane operator:

8.7.1 Crane Operator Certification(s)

Crane operators are required to possess a nationally recognized operator certification or equivalent prior to commencing any crane work on the project site. Certification(s) must identify both the type and size of the crane the operator is able to operate.

8.7.2 Annual Crane Inspection/Certification

Annual inspections will be documented on a form specified by a national crane certification organization. Deficiencies must be fully explained in the "Remarks" section of the form. Corrective actions also must be noted on the form before cranes are used in the field.

8.7.3 Pre Mobilization Inspection

Prior to use on site the first time cranes will be inspected by a competent person; results will be documented. If the crane warrants service or repair, it will be rejected (before unloading/use) and returned to the lessor or owner. The lessor/owner will be notified before such action and, if possible, be allowed to make necessary repairs at his/her own expense. Management/supervision and the RRP Safety Representative will be part of this decision-making process. A photocopy of the inspection report, noting all deficiencies will be transmitted to the lessor/owner.

While in use on the project, each crane will be inspected daily and then monthly in accordance with manufacture specifications. Annual inspections will also be conducted on site as applicable.

Each crane used on the project must meet the following minimum criteria:

- Cranes received for use (through purchase, contract obligations, or rental) must be assembled/disassembled in accordance with the manufacturer's instructions, recommendations, limitations, and specifications.
- Cranes should be load-tested in accordance with the manufacturer's specifications and limitations and the ASME standard B30.5.
- If the crane manufacturer's rated lifting chart for the specific crane configuration is not available on the crane; the crane must be immediately taken out of service.

8.7.4 Definitions

Competent Person

One who is capable of identifying existing and predictable hazards in the surroundings or working conditions that are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Crane

A lifting machine equipped with a winder, wire ropes or chains, and sheaves that can be used

both to lift and lower materials and to move them horizontally. The lifting machine may be part of a vehicle used for purposes in addition to lifting (such as a "boom truck").

Critical Lift

A non-routine crane lift requiring detailed planning and additional or unusual precautions. Critical lifts include, but are not limited to:

- Lifts made when the load weight is 75 percent or more of the rated capacity of the crane
- Lifts that require the load to be lifted, swung, or placed out over critical processes
- Lifts over operating processes, within 33 feet of energized overhead power lines, or in hazardous areas
- Lifts made with more than one crane (other than a tail crane)
- Lifts involving non-routine or technically difficult rigging arrangement
- Hoisting personnel with a crane or derrick

Qualified Person

One who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his/her ability to solve or resolve problems related to the subject matter, the work, or the project.

8.7.5 Rigging Supervisor Qualifications

A rigging supervisor will be designated for each major construction activity that will involve a crane and will the rigging supervisor or (their designee) shall perform the following:

- Ensure that required permits, practices, and processes are in place and are being adhered to during hoisting and rigging operations.
- Ensure that rigging equipment being used has the required inspections
- Ensure that employees performing hoisting and rigging operations have the required training and (as appropriate) certifications, and that each has been documented properly.
- Assist in determining what hoisting and rigging operations should be considered "critical lifts."
- Assist in preparing plans for critical lifts.
- Assist in planning and execution of all hoisting and rigging operations.

8.7.6 Critical Lift Permit

8.7.6.1 Permits

All lifts by cranes that are designated "critical lifts" require a *Critical Lift Permit (See Appendix #8)*, to be developed and approved.

8.7.7 Drivers

To drive a rubber-tired crane (including a boom truck), employees must, at a minimum:

- Have a valid state driver's license.
- Appropriate Level Commercial Driver's License (CDL)
- Be mentally alert and possess the physical ability to drive a motor vehicle safely.

- Display a responsible attitude.
- Be designated to drive by the RRP Construction Manager or his designee.

All restrictions of the employee's driver's license will automatically be applicable to driving rubber-tired cranes.

An employee must carry his/her State driver's license on his/her person while driving and must display it upon request to authorized persons:

- A copy of such license and endorsements must be maintained in the employee's personnel file or RRP's Contractor safety files.
- RRP Safety must be advised of any change in the status of such license and endorsements (such as cancellation or suspension).
- The employee will not drive on or off the project/site after his/her State driver's license is suspended, revoked, or otherwise affected.

Drivers may or may not be crane operators.

8.7.8 Assembly/Disassembly, Inspections, Tests, and Maintenance

8.7.8.1 Cranes

Assembly/Disassembly - Cranes received for use (through purchase, contract obligations, or rental) must be assembled / disassembled in accordance with the manufacturer's instructions, recommendations, and applicable OSHA Standards.

Inspections - Competent Persons will conduct "frequent" (daily and monthly) and "periodic" (annual) documented inspections of cranes.

Designation of Competent and Qualified Persons must be documented in accordance with this Plan.

When brought onto site, each crane must have a copy of its most recent annual crane inspection.

See below for the list of additional Crane Safety Device Requirements:

Figure 8-3 Crane Safety Device Requirements

CRANE SAFETY DEVICE REQUIREMENTS				
EQUIPMENT CATEGORIES	**Boom Truck**	**Crane Crawler**	**Crane Rough Terrain**	**Crane Truck**
Fire Extinguisher 5 BC Rating	**X**	**X**	**X**	**X**
Fire Extinguisher 20 BC Rating				
Horn	**X**	**X**	**X**	**X**
Reverse Alarm	**X**		**X**	**X**
ROPS			**X**	
Seat Belt	**X**		**X**	**Carrier**
Overhead Protection	**X**	**X**	**X**	**X**

Boom Indicator	X	X	X	X
Capacity Chart	X	X	X	X
Seat Belts	X	X	X	X
Boom Angle Indic.	X	X	X	X
The following definitions are in accordance with the current regulatory agency standards				

Fire Extinguisher	An accessible fire extinguisher must not have a rating less than 5 BC in all operator stations or in the equipment cabs.
Horn	Mobile cranes will be equipped with a horn, distinguishable from the surrounding noise level, which will be operated as needed where a mobile crane is moving in either direction.
Reverse Alarm	Mobile cranes will be equipped with a reverse signal alarm audible above surrounding noise levels. The alarm must operate when the equipment direction control is placed in the reverse position.

If the crane warrants service or repair, it will be rejected (before unloading/use) and returned to the lessor or owner. The lessor/owner will be notified before such action and, if possible, be allowed to make necessary repairs at his/her own expense. Management/supervision and the RRP Safety will be part of this decision-making process. A photocopy of the inspection report, noting deficiencies will be transmitted to the lessor/owner.

Daily inspections will be documented on appropriate daily crane inspection forms. Annual inspections will be documented on a form specified by a national crane certification organization. Deficiencies must be fully explained in the "Remarks" section of the form. Corrective actions also must be noted on the form before cranes are used in the field.

If a deficiency has the potential for causing bodily injury to the operator/driver or ground employees, the crane must be tagged with a *Danger – Don't Use It – Unsafe Tag*, or equal, to avoid operation. The supervisor and project manager must be notified when the crane is tagged out of service.

Operator must be knowledgeable/proficient and familiar with the machine, including the safety systems, and is fully capable of reading and understanding the load charts.

- <u>Below-the-Hook Lifting Devices</u>

All below-the-hook lifting devices should have a certificate showing that they have been load tested to 125 percent of their rated load as specified in ASME B30.20.

Below-the-hook lifting devices must be tagged or marked in accordance with ASME B30.20

8.7.8.2 Hooks

Crane hooks must be made from either forging or casting (steel or alloy) that has been quenched and tempered and be fabricated to the requirements of ASME B30.10.

A visual inspection and dimensional check must be performed on all crane hooks before they are initially put into use. A manufacturer's data sheet showing the safe working load and the full dimensional details of each hook must be provided to RRP. Inspection and dimensional check must meet the requirements of the periodic inspection described in ASME B30.10-1.2.

Hooks must receive an ASME frequent inspection and periodic inspection during the interval recommended and removed from service under the requirements of ASME B30.10 -1.2.3 if any deficiencies are found.

8.7.8.3 Lift Lugs and Attachments

Lift lugs must be inspected before the lift. The inspection should include the following:

- The size and quantity of all components must be checked, making sure that all parts, such as gussets and reinforcing plates, have been installed according to drawings.
- The location and orientation of lifting attachments must be checked for conformance to drawings and specifications.
- Attachment welds for lifting lugs must be inspected for conformance to drawings.
- Any damage or nonconformity noted must be brought to the attention of the RRP Rigging Supervisor.

8.7.8.4 Slings

Remove sling(s) from service if the TAG is missing or illegible or if any of the following conditions are present:

- Acid or caustic burns
- Melting or charring of any of part of the surface
- Snags, punctures, tears, or cuts
- Broken or excessively worn stitches
- Wear exceeding the amount recommended by the manufacturer
- Visible tracer thread showing on any portion of the sling
- Other criteria as required by the manufacturer

NOTE: Any rigging equipment found defective or deficient in the above areas must be immediately removed from service.

Competent Persons - Rigging Inspector will inspect all wire rope and rigging equipment each month.

Designation of Competent and Qualified Persons must be documented in accordance with this Plan.

Inspection tags or labels will be used to document monthly inspections and contain the following information, at a minimum:

- Equipment/Component Description or ID Number

- Inspector
- Date of Inspection

8.7.9 Maintenance, Repairs, and Recertification

Persons authorized to conduct maintenance and repair on cranes must meet the criteria for, and be designated as, a Qualified Person in accordance with OSHA.

Repairs to cranes and rigging, other than the replacement of parts, must be carried out by the original manufacturer, the manufacturer's agent, or a fabricator approved by a Qualified Person. Any replacement part must be identical or equivalent to the original part.

Appropriate recertification of a crane following repair must be accomplished before the crane is placed back in service. Recertification is an inspection equivalent to an annual inspection conducted by a Competent Person.

Where load-bearing components are repaired or replaced, rigging equipment must be tested by application of a "proof load" as specified by a Competent Person, and then thoroughly examined. A test certificate stating the working load limit/safe working load and the proof load must be obtained. The test certificate and a record of the repair or modification will be placed in the rigging equipment register.

8.7.10 Modifications

No modifications or alterations that affect the capacity or safe operation of the crane or rigging will be made by the project or any individual without the manufacturer's written approval.

Modifications to cranes and rigging not affecting the capacity or safe operation will be designed and fabricated in accordance with national or in-country standards, and the modified design approved by the design authority.

After modification, if a proof test is required by applicable standards, a test certificate stating the working load limit/safe working load and the proof load must be supplied by a Qualified Person.

8.7.11 Steel Erection

Cranes and rigging used in steel erection must comply with applicable sections of 29 CFR 1926, Subpart R — Steel Erection, or applicable state, local, or in-country standard(s) if as or more stringent than the requirements of 29 CFR 1926, Subpart R.

8.8 Confined Space Entry

Confined space entry activities must be conducted in accordance with the requirements of this Plan.

Definition -A confined space is defined as a space large enough and configured so that a person can enter and perform work, has restricted means of entry and exit, and is not intended for continuous human occupancy.

Confined spaces may include but are not limited to the following:

- Storage tanks, tank cars, process vessels, boilers, large ventilation ducts, silos, and other tank-like compartments that usually have only a manhole or similar opening for entry purposes.
- Open topped spaces such as tanks, pits, ditches and degreasers, also large mobile waste containers.
- Pipes, man holes, sewers, drains, tunnels, shafts, ducts, and similar structures.
- Ceiling and crawl spaces.

Permit-required confined space (permit space) means a confined space that has one or more of the following characteristics:

- Contains or has a potential to contain a hazardous atmosphere such as:
  - The presence of gases, liquids, or solids which are flammable, toxic, asphyxiating, radioactive, hot, or refrigerated.
  - Oxygen concentrations below 19.5 percent or above 23.5 percent under normal atmospheric pressure.
  - A flammable or gas vapor level greater than 10 percent Lower Explosive Limit (LEL).
  - Has airborne combustible dust at concentrations likely to support a fire or explosion.
- Contains a material (except water) that has the potential for engulfing an entrant,
- Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor that slopes downward and tapers to a smaller cross-section, or
- Contains other recognized serious safety or health hazard.

8.8.1 General Requirements

There are hazards involved in inspecting, testing, cleaning, repairing, or entering confined spaces. The hazards associated with each confined space that may be entered must be evaluated. Some of these hazards are listed below.

- Asphyxiation or suffocation
- Burning or scalding
- Electric shock
- Fire
- Moving machinery
- Radiation
- Engulfment
- Drowning
- Explosion

- Freezing
- Poisoning
- Heat Stress
- Falls

The Confined Space Entry Permit must be completed prior to entry to document the hazards identified and evaluated for each confined space.

The Confined Space Data Sheet contains information relating to each confined space and the tasks to be performed when entering that confined space. It includes details of hazards, isolation, safe work practices, special work instructions, and a risk assessment. A Confined Space Data Sheet must be developed, approved by the Confined Space Entry Authorized Permit Issuer, checked by another person before a Confined Space Entry Permit is approved, and maintained on-site.

The Confined Space Entry Authorized Permit Issuer is a person trained and examined to a knowledge level of, and practical experience in, the OSHA requirements and their employer's confined space entry procedures. As a direct result, he/she must be authorized in writing by their employer's project management to prepare and issue Confined Space Entry Permits and accepts the responsibilities associated with authorizing confined space entries.

The Entry Supervisor is a person (such as the employer, foreman, or crew chief) who determines if acceptable entry conditions are present at a permit space where entry is planned, authorizes entry, oversees entry operations, and terminates entry as required. The Confined Space Entry Authorized Permit Issuer may perform the duties of the Entry Supervisor.

An Entry Supervisor also may serve as an attendant/standby person or an authorized entrant, as long as that person is trained and equipped as required for each role he or she fills. Also, the duties of entry supervisor may be passed from one individual to another during the course of an entry.

Only Authorized Entrants may enter permit-required confined spaces. Authorized Entrant means an employee who is authorized in writing by the employer to enter a permit space.

Every person who enters a confined space must sign in and out.

- The following general steps will be taken before entry into a confined space:
  - Isolation
  - Decontamination, if required
  - Cleaning and purging
  - Atmosphere tested as safe
  - Provision of personal protective equipment (PPE)
  - Certification by way of a Confined Space Entry Permit
  - Identify a Confined Space Entry Supervisor

- Train Authorized Entrants and others in accordance with OSHA 1910.146(g) and (h)
- Identify Entry Attendant
- Means of access/egress and means of rescue identified and secured.

8.8.2 Isolation Requirements

Isolation requirements include the following:

- The entry supervisor will ensure and make if necessary, the appropriate isolations and place "Danger Tags," which include the Confined Space Entry Permit number.
- The Confined Space Entry Authorized Permit Issuer will confirm isolations.
- Recipients of permits must place their personal locks and Danger Tags at isolation points.

For entry into a confined space, it is mandatory that process streams be positively isolated by either breaking of lines (such as removal of a valve, spool piece, or expansion joint) and fitting a blank or deflector plate to the open end of the line or inserting of spades (slip plates) in piping between the flanges nearest to the confined space.

For electrical isolations, both a process lock/tag and a personal lock/tag by each person entering the confined space must be applied to the isolator.

8.8.3 Testing the Atmosphere

Testing of the internal atmosphere of a confined space will be carried out as near as practicable to time of entry and be repeated as circumstances dictate throughout the entry. The Confined Space Entry Authorized Permit Issuer will confirm that the sampling/testing is carried out in a safe manner and as specified on the Confined Space Entry Permit using a direct reading instrument. Test equipment used in confined spaces will be maintained and calibrated in accordance with manufacturer recommendations or not less than once every 6 months. Maintenance, servicing, and calibration records must be kept on site and will be provided to RRP upon request.

Persons will not enter the confined space unless testing has proved that:

- The atmosphere is not explosive, with flammable levels less than 10 percent of the LEL.
- The concentration of toxic materials is less than the occupational exposure standards specified.
- The external atmosphere is safe from toxic materials.
- There is compliance with hygiene standards imposed by codes of practice on specific materials, where applicable.
- The oxygen concentration is in the range 19.5 percent to 23.5 percent. The oxygen content of the air both inside and outside the space should be measured.
- A differential between outside and inside air identifies unsuspected contaminants that may be present.
- The temperature in the confined space is not or will not become hazardous.
- Adequate ventilation will prevent the accumulation of a hazardous atmosphere.

Retesting the atmosphere inside the confined space will occur, as a minimum, at the beginning of each shift.

In cases where there is the possibility of a release of toxic or flammable gases/vapors (such as when cleaning with solvents or coating of surfaces), it may be necessary to monitor the atmosphere continuously. In the event of significant interruption to the work under these circumstances, the atmosphere will be retested before re-entry.

When personnel are required to wear breathing equipment or the atmosphere could become immediately life threatening, rescue personnel and equipment will be in place at the point of entry before entry is made.

In the event of a monitor alarm or other emergency stopping the work being carried out, the Authorized Entrants will discuss the conditions with the Confined Space Entry Authorized Permit Issuer before recommencing work.

8.8.4 Personal Protective Equipment

PPE requirements will be as specified on the Confined Space Entry Permit.

8.8.5 Portable Electrical Equipment

The portable electrical equipment should: be supplied through a ground fault circuit interrupter (GFCI) located outside the space. As a further precaution the GFCI may be supplied through an isolation transformer. Specific requirements will be noted on the permit.

It is recommended that double-insulated electrical tools be used.

8.8.6 Duties of the Entry Attendant

The employer shall ensure that the Entry Attendant:

- Knows the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
- Is aware of possible behavioral effects of hazard exposure in authorized entrants;
- Continuously maintains an accurate count of authorized entrants in the permit space and ensures that the means used to identify authorized entrants under paragraph (f)(4) of this section accurately identifies who is in the permit space;
- Remains outside the permit space during entry operations until relieved by another attendant;

NOTE: When the employer's permit entry program allows attendant entry for rescue, attendants may enter a permit space to attempt a rescue if they have been trained and equipped for rescue operations as required by OSHA 1910.146 paragraph (k)(1) and if they have been relieved as required by paragraph (i)(4) of OSHA 1910.146.

- Communicates with authorized entrants as necessary to monitor entrant status
- Monitors activities inside and outside the space to determine if it is safe for entrants to remain in the space and orders the authorized entrants to evacuate the permit space immediately under any of the following conditions;
    - If the attendant detects a prohibited condition;

  - If the attendant detects the behavioral effects of hazard exposure in an authorized entrant;
  - If the attendant detects a situation outside the space that could endanger the authorized entrants; or
  - If the attendant cannot effectively and safely perform all of his/her duties
- Summon rescue and other emergency services as soon as the attendant determines that authorized entrants may need assistance to escape from permit space hazards;
- Takes the following actions when unauthorized persons approach or enter a permit space while entry is underway:
- Warn the unauthorized persons that they must stay away from the permit space;
- Advise the unauthorized persons that they must exit immediately if they have entered the permit space; and
- Inform the authorized entrants and the entry supervisor if unauthorized persons have entered the permit space;
- Performs non-entry rescues as specified by the employer's rescue procedure; and
- Performs no duties that might interfere with the attendant's primary duty to monitor and protect the authorized entrants.

8.8.7 Training

Training for confined space entries must be conducted prior to entry and as conditions change.

All training dates, attendees and the contents of the training must be maintained with the project records and be made available to RRP upon request.

8.8.8 Rescue and First Aid

Accidents in confined spaces require immediate action. Lives may be lost in minutes if the proper procedures are not identified and followed. At each location always consider EMS access when planning for staging of material and equipment.

Should the need for rescue of people from a confined space arise, the following rules will apply:

- The first duty of the Entry Attendant is to quickly summon rescue and first-aid help in the event of problems affecting persons in the confined space.
- The Entry Attendant will not enter the space before help has arrived and proper precautions have been taken. To do otherwise is to create a very real risk of increasing the number of victims/fatalities.
- Unless the danger is clearly greater if the injured/distressed person(s) are left where they are, they should not be moved until sufficient experienced and trained people and appropriate equipment are at the scene to enable the safest possible evacuation.
- To enable a rescue to be carried out, it may be necessary to install a portable frame with lifting equipment above vertical openings. Regular rescue scenarios will be carried out as part of the training of persons who need to work in confined spaces regularly.
- Rescue equipment will be listed in the Confined Space Entry Data Sheet.
- When personnel are required to wear breathing equipment or the atmosphere could

become immediately life threatening, rescue personnel and equipment will be in place at the point of entry before entry is made.

- At least one person involved with the confined space entry will be currently certified in first aid/CPR.

8.8.9 Classification of a NON-Permit-Required Confined Space

A space classified by RRP or Subcontractor as a permit-required confined space may be reclassified as a non-permit confined space under the following procedures:

- If the permit space poses no actual or potential atmospheric hazards and if all hazards within the space are eliminated without entry into the space, the permit space may be reclassified as a non-permit confined space for as long as the non-atmospheric hazards remain eliminated.
- If it is necessary to enter the permit space to eliminate hazards, such entry shall be performed as a permit-required confined space entry. If testing and inspection during that entry demonstrate that the hazards within the permit space have been eliminated, the permit space may be reclassified as a non-permit confined space for as long as the hazards remain eliminated.

NOTE: Control of atmospheric hazards through forced air ventilation does not constitute elimination of the hazards. OSHA 1910.146 paragraph (c)(5) covers permit space entry where the employer can demonstrate that forced air ventilation alone will control all hazards in the space.

- The employer shall document the basis for determining that all hazards in a permit space have been eliminated, through a certification that contains the date, the location of the space, and the signature of the person making the determination. The certification shall be made available to each employee entering the space or to that employee's authorized representative. A copy of the certification must be maintained on site and made available to RRP upon request.
- If hazards arise within a permit space that has been declassified to a non-permit space, each employee in the space shall exit the space. The employer shall then reevaluate the space and determine whether it must be reclassified as a permit space, in accordance with other applicable provisions of this section.

8.9 Hearing Protection

Employee's hearing must be protected through the implementation of a hearing protection program for those employees who may work in environments that by their nature may exceed an average noise level of 85 dBA in any 8 hour period. Other noise limits for shorter periods of time will be applied in accordance with the 2010 American Conference of Governmental Industrial Hygienists (ACGIH) threshold limit values (TLVs). The table below summarizes those requirements:

NOISE EXPOSURE LIMITS	
DURATION Hours	**LIMIT** dBA
4	88
2	91
1	94
0.5	97
0.25	100

Limits based on measurements made using an American National Standards Institute Type II sound level meter, or better, set on the A scale, slow response.

8.9.1 General Requirements

If the noise source/work activity may result in an average exposure of 85 dBA during any 8 hour period, or equivalent, site management will perform the following:

- Notify employees of the known or possible exposure above 85 dBA.
- Provide and implement engineering and administrative controls to reduce noise levels when possible and practical.

NOTE: Engineering controls should preferentially be applied first. Some examples include source enclosure, barrier walls, vibration isolation, or exhaust muffling.
Administrative controls should be applied after all practical engineering controls have already been applied. Some examples include reducing the time that employees work in high noise areas.

- Require and ensure the use of hearing protection to further reduce exposure when engineering and administrative controls are not adequate to control exposure to below 85 dBA.

NOTE: It is recommended that employees wear hearing protection where noise levels are 80 dBA or greater.

- Ensure that the noise reduction rating (NRR) of the selected hearing protection is adequate for the environment employees need to work in. OSHA's method for estimating the attenuation of hearing protection can be found here: http://www.osha.gov/dts/osta/otm/noise/hcp/attenuation_estimation.html
- Post signs at the periphery of work areas where employees may be exposed above 85 dBA without regard to the use of hearing protection
- Portable radios, ipods, walkmans or other nonwork-related entertainment devices are prohibited on all project sites

8.9.2 Training

Employees who may be exposed above 85 dBA without regard to the use of hearing protection or who are provided hearing protection must be trained on the following:

- Effects of noise on hearing
- Purpose of hearing protection
- Advantages and disadvantages of various types of protection
- Instructions on selection, fit, use, limitations and care of protective devices

- Where to obtain copies of this program and the applicable federal/state standard

Documentation of this training, the date provided attendees, and the training contents must be kept in the project records.

8.10 Housekeeping

8.10.1 General Requirements

- Each employee is responsible for keeping his/her work area organized and uncluttered – and to prevent trash, waste materials, and debris from accumulating. Those employees doing work in multiple areas are responsible for cleaning up after they complete that job.
- Employees leaving the work area before a job is completed (to take a break or go to lunch, for example) must make sure that the area is left in a safe condition. This should include replacing barricades or safety chains, removing tools and other items from walkways, and generally making sure that the work area does not pose a risk to people who may enter the area while you are gone.
- The supervisor assumes overall responsibility for housekeeping. The supervisor will periodically inspect each work are to ensure that the housekeeping expectations are being met.
- Housekeeping must be maintained on a daily basis; cleaning and sweeping will be done in a manner that minimizes the contamination of the air with dust or particulate matter.
- Work areas will be kept clean to the extent the nature of the work allows.
- When it is necessary that items must span walking and working surfaces, proper methods of support and/or protection will be used. One method is to use nonconductive (plastic) ties to support cords, and hoses along handrails (**never** use metal "ties"). Another method is to use cord covers for electrical cords.

8.10.2 Work Surfaces and Walkways

Floors, working surfaces, and passageways must be kept free from protruding nails, splinters, loose boards, and openings.

Employees should:

- Keep work surfaces orderly, free of tripping hazards, and free of other hazards that could result in injury.
- Provide safe access to and from the work area.
- Arrange materials in a stable manner so that they do not protrude into walking surfaces.
- Place materials stored above work surfaces back from edges or behind protective barriers to protect workers below.
- Clean up spills or mark the area with safety barricades until the spill can be cleaned up.
- Identify interior aisles, walkways, passageways, and floor surfaces for construction buildings, warehouses, or shops.

- NOTE: Walkways may be established by building layout, office cubicles or partitions, arrangement of equipment or material storage racks, welding curtains, painted stripes, or reflective or fluorescent striping materials.
- When mechanical handling equipment is in use, sufficient safe clearance must be allowed for aisles, at loading docks, through doorways, and wherever turns or passages are made.

8.10.3 Hoses and Cords

Hoses and electrical conductors that cross aisles or passageways must be covered or suspended overhead so that they pose no tripping hazard.

8.10.4 Emergency Access

Exits, fire alarm boxes, fire extinguishing equipment, electrical disconnect panels, and other emergency equipment must be kept clear of obstructions at all times.

8.11 Construction Heating Equipment

Construction heaters are typically used to keep workers warm, prevent pipes from freezing, pour and cure concrete, apply dry wall and paint, thaw frozen ground, and to do other jobs.

Construction heaters used on site must be designed to meet an applicable nationally recognized standard such as ANSI Z83.7 *Gas-Fired Construction Heaters*. Improvised heaters will not be allowed.

Construction heaters must be in good condition and must be used as intended in accordance with the manufacturer's instructions. A copy of the manufacturer's manual with directions for installation, use and service must be maintained on-site at all times.

General safety precautions for installation and use of most heaters include:

- Do not operate a damaged heater
- Do not modify heater or operate a heater that has been modified from its original conditions
- If propane cylinders are used they must be handled and stored in accordance with NFPA Pamphlet 58 and applicable OSHA regulations**.**
- If applicable, use only the hose and regulator assembly provided with heater. The hose assembly shall be protected from traffic, building materials and contact with hot surfaces both during use and while in storage.
- Use only in areas free of flammable vapor or high dust content. Never use where gasoline, paint thinner or other flammable vapors are present.
- Do not move, handle, or service while hot or burning.
- When used inside an enclosure all appropriate air monitoring will be conducted to ensure safety of the area.

8.12 Eye Wash Stations

Eye wash stations are required:

- On all construction sites where employees may use or be exposed to corrosive

materials.

- On fixed construction sites whenever environmental conditions (weather) or site equipment (clean, heated/cooled spaces) allows the eyewash station to be maintained and used as intended by its manufacturer. Fixed construction sites are sites where construction activities will last more than two weeks. Generally, allowable weather conditions permit the water temperature in the eyewash station to be maintained between 60°F and 100°F.

8.13 Ladders

This practice establishes the requirements and processes for building, selecting, using, and inspecting portable ladders.

8.13.1 General Requirements for Ladders

Managers and supervisors will ensure ladders meet the following requirements:

- Designed and constructed to meet American National Standards Institute (ANSI) standards for ladders:
  - ANSI A14.1, Portable Wood – Safety Requirements
  - ANSI A14.2, Portable Metal – Safety Requirements
  - ANSI A14.4, Safety Requirements for Job-Made Ladders
  - ANSI A14.5, Portable Reinforced Plastic – Safety Requirements

  Note: *An ANSI-approved ladder has a label stating that it meets the standard.*

- Rated for either heavy duty or extra heavy-duty use (Type I or Type IA).

  Note: *ANSI Type IA ladders are recommended; however, a minimum rating of ANSI Type I is required. Ladders rated less than ANSI Type I must not be used.*

  Note: *Special ANSI-rated ladders are necessary when access/use is required by employees whose total weight (body weight, plus weight of tools/equipment being carried on the employee) exceeds 300 pounds (113.4 kilograms). Type IA ladders are rated* ***up to*** *300 pounds.*

  Note: *The use of job-made ladders is not preferred. However, if there is a practical need for a job-made ladder, follow the ANSI A14.4 standard or applicable in-country standards.*

  ****SEE APPENDIX FOR OSHA FACTS SHEET FOR JOB*-MADE LADDER SPECIFICATIONS.**

Managers and supervisors should ensure that ladders are inspected each quarter by a Competent Person. A Competent Person is one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Ladders found to have defects must be withdrawn from service for repair or destruction, or tagged out of service.

Trestle ladders are not designed for climbing and no one should be allowed to do so. Trestle ladders support planks or scaffold boards. When using trestle ladders for scaffold board supports, a separate ladder must be used to access the scaffold deck.

8.13.2 Ladder Selection and Use

Managers and supervisors will ensure that employees know how to select ladders in accordance with the following:

- The ladder is the right height for elevated work.
- The ladder has no limitations that would interfere with performance of the work.
- The ladder is specifically designed for the task

Employees should observe the following in the handling and using ladders:

- Ensure location or ownership markings are placed in a manner that avoids compromising the structural strength of the ladder.
- Use fall protection when working off of a ladder 6 feet or more above the work surface when appropriate. (Does not apply when using a ladder less than 24 feet in height for access only).

NOTE: Document fall protection details in the Safety Task Assignment pre-job planning document if the employee has to use personal fall arrest systems while using a ladder.

- Handle ladders with care and do not subject them to abuse or misuse.

NOTE: The use portable metal ladders are not allowed on this project. The only exception to this policy is metal ladders designed and used specifically for attachment to scaffolds or skeleton steel during steel erection.

- Straight and extension ladders should be properly secured at both the top and bottom of the ladder.
- Use ladders only for short-duration jobs with a limited work scope.
- Extend ladders used to access another work surface a minimum of 3 feet past the level you are accessing.
- Position ladders only on stable and level surfaces; do not place a ladder on items such as boxes or barrels to reach additional height.
- When placed in “working position,” ensure that the rungs, cleats, and steps are parallel to the surface and uniformly spaced.
- Do not use ladders for braces, skids, levers, runways, platforms, scaffolds, or other uses for which they were not intended.
- Do not overreach or use excess force while working at heights on a ladder.
- Place the ladder so the work is at chest level and horizontally positioned so the work is either centered or as near to the side rails as possible.
- Do not work with another employee on the same ladder unless the ladder is specifically designed for 2 people.
- Keep the area around the top and bottom of a ladder clear to prevent tripping or slipping while the ladder is in use.
- When a building or structure has 2 or more points of access between levels, keep at least 1 point of access clear to permit free passage.
- Set up ladders so the weight is evenly distributed between the vertical members. For extension ladders, evenly distribute the weight between the rails.

- Do not tie or fasten ladders together to provide longer sections, unless they are designed for this application.
- Face the ladder when ascending or descending and always keep 3 limbs in firm contact with the ladder. Carry tools or equipment in a work belt or fanny pack, or hoist them to the work area using a rope and bucket.
- Do not "load" the ladder beyond the rated capacity.
- Do not place ladders in a doorway unless the door is blocked open or locked, or the area is barricaded.
- Ensure that shoes, hands, gloves, and the ladder steps are free of grease, mud, or anything that could cause an employee to slip while climbing.
- Do not place ladders against any structure or equipment that is not strong and rigid enough to support the ladder, or that is not sufficiently anchored.

8.13.3 Straight / Extension Ladders

Employees will observe the following when using straight or extension ladders:

- Place straight or extension ladders so that the horizontal distance from the support is equal to 1/4 of the height from the working surface to the top contact.

  Example: *Place a 12-foot ladder so that the bottom is 3 feet from the object against which the top is leaning).*
- Secure straight ladders by holding or lashing while in use. Nonslip bases are not a substitute for care in positioning, lashing, or holding the ladder.
- Before climbing an extension ladder, ensure locking clips (stops) are securely in place.
- Do not use straight ladders longer than 20 feet.
- Do not use extension ladders longer than 30 feet when fully extended.

8.13.4 Step Ladders

Employees will observe the following when using stepladders:

- Ensure that ladders are only set up on flat and as solid of base as possible.
  NOTE: Observe the limits imposed on self-supporting ladders (stepladders and platform ladders) by the manufacturer, such as not using the top 2 steps or the top platform as a step and fully extending and locking the braces. Use stepladders on clean, level surfaces. Self-supporting ladders are more stable if you lean forward or back than if you lean to the side.
- Use stepladders in the fully open position with the locking devices set.
- Do not use folded stepladders as a straight ladder or to access another work surface.
- Do not step or stand on the top step or (top) platform.
- Do not use the cross bracing on the rear section of stepladders for climbing unless the ladder is designed for such use (that is, has steps for climbing on both front and rear sections).
- Do not use step and platform ladders that are longer than 12 feet as determined by the front rail.

8.13.5 Ladder Inspection and Maintenance

A Competent Person will perform a general inspection of ladders for visible defects at least once each calendar quarter, and following any occurrence that could affect the safe use.
Ladders with no visible defect must have a color-coded tag (or equivalent) prominently affixed.

A Competent Person must visually inspect all ladders quarterly. The Competent Person will ensure that the following items, at a minimum, are inspected (as applicable):

- Ladder is ANSI Type I or Type IA certified.
- Ladder possesses proper hardware (braces, rivets, spreaders, nuts, bolts, and feet).
- There are no cracks in wood, metal, or fiberglass.
- There is no evidence of rot.
- Wood ladders have adequate (such as linseed oil) preservation treatment.
- There are no splinters.
- Condition of steps is adequate.
- Hardware or metal rungs (interior/exterior) are not corroded.
- There are no dents or bends.
- Condition of extension ropes and pulleys is adequate.
- Safety feet are adequate.
- Tie-off ropes of the correct length/size are attached to straight, extension, and stepladders.

NOTE: Bends, dents, cracks, loose or missing rivets, disconnected braces, and corrosion seriously weaken a ladder. Carefully inspect the area around rivet points on fiberglass ladders for hairline stress cracks.

- Inspection tags or labels should be used to document quarterly inspections and contain the following information, at a minimum:
  - Equipment/component description or ID number
  - Inspector
  - Date of inspection

Ladders found defective during quarterly inspections must be removed from service and destroyed or repaired in accordance with manufacturer's instructions.

Employees will observe the following when inspecting and maintaining ladders:

- Maintain ladders so that they are in good condition.
- Do not paint wooden ladders except for the platform and top step, which should be painted to indicate that users are not to step there. Clear preservatives may be used so defects are not hidden.
- Store ladders where they are protected from damage with good ventilation and away from excessive heat.
  - Storage racks should have sufficient support points to prevent sagging. Log ladders require support every 6 feet.

- Do not place materials on stored ladders.

- Inspect ladders before issuing and before each use.
- Ensure that a quarterly inspection has been performed and documented before issuing or using a ladder. Ladders that have not been inspected should be tagged with a *DANGER – DO NOT USE – UNSAFE Tag* and returned for required inspection and tagging in accordance with this practice.
- Inspect ladders for structural defects such as broken or missing rungs, cleats, or steps; bent, broken, or split side rails; corroded or missing components; worn bolts, rivets, and the holes in the ladder where the bolts or rivets pass through.
- Inspect mechanical features of the ladder to ensure that they are in good working order as follows:
  - Clean and lubricate moving parts such as hinge points, pins, or pulleys.
  - Make sure that ropes on the ladder are not frayed, worn, or weather-damaged.
  - Ensure that feet operate effectively through their full range of motion.
  - Ensure that extension ladder latches or stepladder locking braces are not bent or damaged and operate correctly.
- Immediately remove defective ladders from service and tag or label the ladder as defective. The tag or label should say "*DANGER – DO NOT USE*"
  - Destroy ladders destined for disposal.
  - Repair ladders to design conditions before returning them to service.
  - Repair according to manufacturer's directions.
- Ladders should be properly supported during transport by motor vehicles. Support points should be made of a material (such as wood or rubber coated and iron pipe) that will minimize chafing and the effects of road shock.

8.13.6 Training

Employees will be trained by a Competent Person in the following areas, as applicable:

- The nature of fall hazards in the work area
- The correct procedures for erecting, maintaining, and disassembling the fall protection systems to be used
- The proper construction, use, placement, care, and handling of ladders
- The maximum intended load-carrying capacities of ladders used
- The information in this practice
- Retrain employees as necessary. Training must be documented.

8.14 Fall Protection

RRP is committed to 100% Fall Protection wherever the potential exists for an employee to fall from a height of six feet (6) or greater. For this reason, all unprotected sides or edges of walking/working surfaces greater than six (6) feet above a lower level shall be protected through the use of guardrails. Personal Fall Arrest Systems (PFAS) and other applicable measures, as explained below, may be used to eliminate or control a potential fall exposure.

While RRP 100% Fall Protection Policy appears to become effective only when employees are working six feet (6) or more above a lower level, it can also extend to other particularly hazardous situations where serious injury could result from a fall of less than six feet.

Where engineered barriers/controls are not feasible, fall protection — in the form of a personal fall arrest system, safety nets, etc. — is required in the following circumstances:

- In elevated locations 6 feet in height or more where there is no other means of fall protection (guardrails, warning lines)
- On stages, floats, and any other type of suspended scaffolding
- On scaffolds with incomplete decking or guardrails
- On exposed bridge, decks and roofs
- Within 15 feet of the edge of floors or decks where there are no protective guardrails
- When removing/replacing floor planks, hole covers, or grating from the last panel of a temporary floor
- Working off a ladder 6 feet in height or more (does not apply when using a ladder for access only)
- In precarious positions at any elevation (less than 6 feet leaning or off balance)
- In areas exposed to protruding, unprotected objects or reinforcing steel at any height
- When operating a boom-type elevating work platform from inside the “basket,” and certain scissor lifts
- In crane-suspended work platforms
- Around deck openings, and other surfaces where there is a fall-through hazard

8.14.1 Work Activity Planning – Fall Protection

The thought process required when planning for elevated work hazards consists of the following hierarchy:

a. Elimination - Make it impossible for someone to fall. For example: prefabricate or build on the ground, or cover holes in the walking working surface with ¾” plywood, secure and mark it as a hole cover.

b. Prevention - Control the work environment to prevent falls. For example: build guardrails, handrails, use equipment such as aerial lifts, stairways, scaffolding, etc. or design restraining safety systems into the construction process.

c. Controlling - This is the domain of Personal Fall Arrest Systems (PFAS) and calls for the use of equipment such as full body harnesses, shock absorbing lanyards, self-

retracting lifelines, static line systems, and anchorage points. The use of a PFAS is the LAST resort – remember that one has to fall before they can use their PFAS, our goal is to ELIMINATE falls. Hence, controlling fall hazards should only be considered after determining the fall hazard cannot be eliminated.

The use of such equipment necessitates workplace and work process assessment and planning in order to select the proper equipment, installation procedures, and safe work practices to be followed. Note that the Safety Department or other RRP designated "Fall Protection Competent Person" should be contacted to provide technical support and advisement regarding the control of fall hazards.

- Prior to the start of any elevated work operations it is the responsibility of the Project Director to:

  a. Communicate and obtain feedback from the crew performing the work. This should include work procedures, potential hazards, and retrieval methods.

  b. Develop a Work Activity Plan for all elevated work activities.

Work Activity Plans must detail calculated fall clearances and specific anchorage points, which are clearly adequate to support personal connections. Items including: electrical conduit, wood guardrails, bolts, 3/8-inch or smaller thread rod and rebar, hand rail stanchions, welded pipe < 2-inches, cable tray slats, threaded rod suspended with malleable iron c-clamp attachment, fiberglass grating, hollow aluminum ladder rungs, etc. are not adequate anchorage points.

  c. Communicate the specific details of the final Work Activity Plan in the daily Team Meeting to all crewmembers.

8.14.2 Conventional System and Equipment

Some basic devices utilized as part of the RRP Fall Protection Program are full body harnesses, shock absorbing lanyards with double-locking connectors, self-retractable lifelines, cable and rope grab devices, lifelines (horizontal and vertical) and elevating work platforms (i.e., aerial lifts). Note* the use of body belts is prohibited for fall protection.

8.14.2.1 Anchorage Points

Must be capable of supporting at least 5,000 pounds per attached employee or if designed as part of a complete fall arrest system which maintains a safety factor of at least two.

8.14.3 Cable/Rope Grab Devices

Are utilized exclusively for vertical work such as climbing pile hammer leads, formwork, and suspended personnel platforms. These are not to be used on horizontal lifelines. Lanyards must be four foot or less when using grab-type devices; this ensures that a free fall of more than six feet cannot occur. Beware of grab-type devices that require a free hand to slide the device along. These devices are dangerous and not acceptable for use on any RRP Project. An acceptable grab device will slide along freely with the lanyard until a fall occurs. Make sure to use the correct size grab device for the lifeline size.

8.14.3.1 Elevating Work Platforms

(Aerial lifts) should be utilized wherever and whenever they can minimize fall hazards to employees without creating other hazards as a result of use.

8.14.3.2 Full Body Harnesses

Are the only acceptable forms of personal fall arresting protective equipment. Safety belts are not acceptable unless they are incorporated into the PFAS and not used as the only means for fall protection. Always attach your lanyard to the D-ring behind your neck. All other D-rings are prohibited for fall protection and are intended only for working adjacent to vertical surfaces, positioning or retrieval. Improper attachment to harness D-rings may result in serious injury.

8.14.3.3 Guardrail Systems

Perimeter guarding is required anywhere there is a drop in a floor or a deck of six feet (6) or more. If cable guarding is used, connection to the cable is prohibited, unless it meets requirements of the horizontal lifeline specification. No materials or equipment shall be stored within four (4) feet of a working edge.

a. Guardrail systems shall be surfaced to protect workers from punctures or lacerations and to prevent clothing from snagging.

b. The top edge height of toprails or (equivalent) guardrails must be 42 inches plus or minus 3 inches, above the walking/working level. The guardrail system must be capable of withstanding a force of at least 200 pounds applied within 2 inches of the top edge in any outward or downward direction. When the 200-pound test is applied in a downward direction, the top edge of the guardrail must not deflect to a height less than 39 inches above the walking/working level.

c. Midrails must be installed at 21 inches plus or minus 3 inches. Midrails, screens, mesh, intermediate vertical members, solid panels, and equivalent structural members shall be capable of withstanding a force of at least 150 pounds applied in any downward or outward direction at any point along the midrail or other member.

d. When screens and mesh are used, they must extend from the top rail to the walking/working surface, and along the entire opening between top rail supports. Intermediate members, such as balusters are used in lieu of mid-rails they shall not be more than 19 inches apart.

e. 3/8 or larger diameter cable may also be used if installed with sufficient tightness and post spacing to withstand a 200 pound lateral load with less than three inches resulting deflection. Wire rope used for top rails must be flagged every six feet with high visibility material.

f. When toeboards are used as protection from falling objects, they must be erected along the edges of the overhead walking/working surface for a distance sufficient to protect persons working below. Toeboards shall be capable of withstanding a force of at least 50 pounds applied in any downward

or outward direction at any point along the toeboard. Toeboards shall be a minimum of 3.5 inches tall from their top edge to the level of the walking/working surface, have no more than 0.25 inches clearance above the walking/working surface, and be solid or have openings no larger than 1 inch (2.5 centimeters) in size.

g. Where tools, equipment, or materials are piled higher than the top edge of a toeboard, paneling or screening must be erected from the walking/working surface or toeboard to the top of a guardrail system's top rail or midrail, for a distance sufficient to protect employees below.

8.14.3.4 Horizontal Lifelines

(Static lines) shall be a minimum of 3/8in diameter cable. Lifelines shall be anchored such that each anchorage point will withstand the simultaneous fall impact of 5000 pounds per employee attached or if engineered designed as part of a complete fall arrest system which maintains a safety factor of at least two.

a. Horizontal lifelines shall not have more than four employees tied off to them simultaneously between two anchorage points unless the system is designed and manufactured accordingly.

b. Horizontal lifelines shall not exceed a maximum length of 60 feet without intermediate anchorage points or other means to minimize the amount of sag.

8.14.3.5 Positioning Device Systems

Must be incorporated into the full body harness and set up so that a worker cannot free fall greater than 2 feet. They shall be secured to an anchorage capable of supporting at least twice the potential impact load of an employee's fall or 3,000 pounds whichever is greater. Requirements for snaphooks, D-rings, and other connectors used with positioning device systems must meet the same criteria as those for personal fall arrest systems.

8.14.3.6 Safety Nets

Safety nets are to be considered a last resort! There are extremely few situations where safety nets significantly reduce a fall hazard or exposure to injury. Contact the Safety Department for specific requirements and appropriate applications.

Before utilizing safety nets on a RRP project, RRP Project Management must submit a detailed written plan documenting net attachment devices, interferences/fall hazards, installation procedure, daily inspection procedure and fall prevention or connection method (to prevent falls into the net) for approval. Work may start only after approval has been received.

8.14.3.7 Self-Retracting Lifelines

(SRL) are intended for vertical work as in climbing up and down. They may be used horizontally for work only if attached to a horizontal lifeline allowing free movement to reposition directly over the harness D-ring of the worker below. If the block is not positioned directly over the point of operation a swing fall hazard

may exist. A swing fall can produce nearly the same energy as a vertical fall through the same distance. Therefore, it is critical that employees not move a distance of more than five feet horizontally from directly under the anchorage point (regardless of the manufacturer's allowed angle of operation for the retraction mechanism). If greater horizontal movement is required, then a horizontal lifeline should be used.

8.14.3.8 Shock Absorbing Lanyards

Shock absorbing lanyards are the only acceptable lanyard type. They may be constructed from nylon webbing, rope or steel cable as long as a stitched or block type energy-absorbing (deceleration) device is incorporated. Double locking snaps are required to prevent "roll-out" of line from snap. Knotting or tying lanyards to shorten them is not permitted. Note that different length (1-6 foot) adjustable lanyards are available from the manufacture.

a. Due to RRP's 100% fall protection policy, if anchorage connection is the fall protection method chosen, double lanyards shall be utilized to facilitate 100% connection.

b. Lanyards must be utilized to limit fee fall to less than six (6) feet. For example, a six-foot lanyard must be anchored (or hooked off) at shoulder height or higher (since D-Ring hook point is at shoulder height). Conversely, if anchored at the waist (such as in an Elevating Work Platform) a shorter lanyard or retractable should be used to keep the user from being propelled outside the basket or over the top rail.

c. A lanyard should never be wrapped around an object, such as a pipe or beam, and then connect back to the lanyard to connection unless it is specifically designed to do so. Also, one lanyard should never be hooked into another lanyard to extend the length. The proper method is to use a choker or a "cross-arm strap" on the pipe or beam, and then connect your lanyard into the strap such that a potential free fall is limited to less than 6 feet. PFAS used in hoisting areas or where fall restraint methods have been implemented shall allow movement of employees up to the leading edge of walking/working surfaces, and restrict the possibility of falling to a lower level.

d. Never attach lanyard snap-hook to another snap-hook. Furthermore, never attach a shock-absorbing lanyard to a SRL, as the shock-absorbing feature will disengage the clutching action of the SRL. In both cases, use manufacturer's recommended connector ring (carabineer) made of dropped-forged pressed form steel or equivalent material capable of supporting 5,000 pounds with a minimum tensile strength of 5,000 pounds.

e. Beware of lanyards used around cutting, welding or other flame producing operations. Steel cable lanyards with shock absorbers are manufactured for this hazard.

8.14.3.9 Suspended Personnel Platforms & Man-baskets

To be used as a last resort, but RRP does allow for their use in accordance with RRP's Personnel Hoisting Safety Program outlined in this manual.

8.14.4 Warning Line Systems

When applicable shall be erected around all sides of open decking operations not less than 15 feet from the roof edge perpendicular to the direction of mechanical equipment operation. Warning line systems consist of ropes, wires, or chains, and supporting stanchions and are set up as follows:

a. Flagged at not more than six (6) foot (1.8 meter) intervals with high visibility material;

b. Rigged and supported so that the lowest point (including sag) is no less than 31 inches from the walking/working surface and its highest point is no more than 39 inches from the walking/working surface.

c. Stanchions, after being rigged with warning lines, shall be capable of resisting, without tipping over, a force of at least 16 pounds applied horizontally against the stanchion, 30 inches above the walking/working surface, perpendicular to the warning line and in the direction of the floor, roof, or platform edge;

d. The rope, wire, or chain shall have a minimum tensile strength of 500 pounds and after being attached to the stanchions, must support without breaking, the load applied to the stanchions as prescribed above.

e. Shall be attached to each stanchion in such a way that pulling on one section of the line between stanchions will not result in slack being taken up in the adjacent section before the stanchion tips over.

8.14.5 Operation Specific Fall Protection Procedures

8.14.5.1 Beam and Girder Erecting

In most cases, the erecting of pre-cast concrete or structural steel beams / girders the "Fall Protection Static Line Post System" can be implemented.

8.14.5.2 Bridge Decks

Many new bridge designs today call for parapet barriers along each side of the bridge deck. These barriers normally are 32 to 36 inches in height with no railing extending higher, nor do they offer a practical way to increase the height to 42 inches. In the past, rail systems extended the top of these barriers, which is sufficient in meeting the 200-pound force requirements. However, a safe alternative to the 42 inch height would be to:

a. Ensure a competent person develops a job specific fall protection activity plan that clearly addresses all hazards/solutions and administrative/ engineering controls.

b. A standard warning line system would be placed six feet from each parapet positioned along the bridge deck side towards the bridge deck centerline in all walking and working areas. 100% fall protection would be required between the parapet and the six (6) foot warning line.

c. A competent person would provide training to anyone requiring access to these areas.

Also, there may be periods of construction work prior to the installation of the permanent parapet barriers or handrail system when fall protection/prevention measures are required along the sides of the bridge deck. RRP has a designed and engineered post and cable system, which can be installed as a fall protection system (horizontal lifeline system requiring 100% connection) or a fall prevention system (guard rail system). In this specific work sequence there is a period of time when a transition from 100% connection to a guardrail system occurs. In these areas, the following minimum safety measures must be provided.

a. Ensure a competent person develop a job specific written fall protection/prevention activity plan clearly addressing all hazards/solutions and administrative/engineering controls.

b. Utilizing 100% fall protection, install post and cable guard rail system using ½ " EIPS cable for 42" (+/- 3”) hand rail and 21" (+/- 3”) midrail along the sides of the bridge deck in walking and working areas.

c. Install toe board in working areas where exposure to others below exists or barricading below is not feasible.

d. Once handrail system is in place and inspected by a competent person, 100% fall protection (full body harness/lanyards) will not be required in these work areas.

e. A competent person must provide training to anyone requiring access to these areas.

During the construction and demolition of floors/decks there are periods when the guarding along the floor edge is removed or has not been installed. In these work areas, the minimum following safety measures must be taken.

a. Ensure a competent person develops a job specific fall protection activity plan addressing hazards and solutions to installing appropriate engineering/administrative controls.

b. When the fall distance is greater than six (6) feet to a lower level, a control access zone (CAZ) could be established utilizing a warning line system at least 6 feet from the open floor side delineating the work area. Any activities outside of the work area in the CAZ would require 100% fall protection measures. A competent person should provide training to anyone requiring access to these areas under this condition.

8.14.5.3 Excavations and Trenches

In which an employee at the edge of an excavation six (6) feet or more deep shall be protected from falling by guardrail systems, fences, barricades, or covers. Where walkways are provided to permit employees to cross over excavations they must be a minimum of 18” in width, and guardrails are required on the walkway if it is six (6) feet or more above the excavation.

8.14.5.4 Equipment Operations and Maintenance

Up to six feet does not require fall protection/prevention. Functions such as access to and from the crane operator cab, operating equipment from crane seat with the door open does not require 100% fall protection. This does not mean we should not provide safe accesses for operators or fail to recognize hazards at all levels and plan accordingly.

8.14.5.5 Floor Openings and Hole Covers

(Holes with a gap of 2-inches or more in the least dimension) shall be covered with materials capable of twice the expected loads and clearly marked with the word “HOLE" or "COVER.” To prevent accidental displacement resulting from wind, equipment, or workers' activities, all covers must be secured.

8.14.5.6 Formwork and Reinforcing Steel

Fall protection is required for all employees moving vertically and/or horizontally on the vertical face of rebar assemblies or formwork even if they are using a positioning device. Approved PFAS include the implementation of self-retracting lifelines and/or v-style two legged lanyards and a full body harness.

8.14.5.7 Overhanging Bracketed Walkways

When installing overhang bracketed walkways along the outside edge of bridge decks, ensure that the guardrail system extends above the walking working elevation by at least 42" (+/-3”).

8.14.5.8 Ramps, Runways, and Other Walkways

Each employee using ramps, runways, and other walkways shall be protected by a guardrail system.

8.14.5.9 Scaffolding or False work Bents/Towers

Requires 100% connection over six feet until standard guardrails, mid-rails, and toe boards are installed. When possible, the lifeline (lanyard) must be secured to an acceptable anchorage point above the harness "D" ring (in the center of your back) to protect against falls greater than six feet. Consider using a shorter lanyard when working at lower heights.

8.14.5.10 Trucks

When loading / unloading deliveries, 100% fall protection must be provided like any other situation when a fall hazard exists greater than six (6) feet. Your activity plan should include fall prevention / protection measures to control these types of hazards.

8.14.5.11 Working Over or Near Water:

Where it has been determined that a drowning hazard exists, employees shall be provided with personal flotation protection consisting of U. S. Coast Guard

approved life jackets or work vests to be worn zipped up or securely fastened as designed. At extreme heights, >30 feet, or other factors the RRP Construction Safety Manager may approve a modification of the policy provided a greater hazard can be shown to exist. If floatation protection is used, it should be worn so that tool belts and other heavy articles can be removed without sacrificing the buoyancy of the flotation devices.

a. Ring Buoys are required with 90 feet of line available for emergency rescue and stationed less than 200 feet apart along the work area.

b. When applicable at least one lifesaving skiff shall be immediately available and operational for emergency rescue situations at specific locations where employees are working over or near water. An effective communication system must be in place before any emergency rescue operation of this type can be successful.

8.14.6 Personal Fall Protection Equipment Use – Inspection – Care – Replacement Criteria

8.14.6.1 Use

Use all fall protection equipment for its intended purpose only. Using a lanyard or any other fall protection device for a rope or any other application other than for its intended use is strictly prohibited (i.e. rigging equipment).

Do not wrap a lanyard around an object and then connect it back to itself (i.e., choking the lanyard) unless it is designed to be used in this application by the manufacturer. Otherwise, manufacturer recommendations strictly prohibit this practice. If there is nothing to connect to, advise your supervisor, and you will be issued a tie-off strap or cross arm strap that will assist in developing an approved tie-off connection point. Connecting two lanyards together “hook to hook” is prohibited. The hooks were not designed for this use and using the lanyards in this manner is an OSHA violation.

Harnesses are limited in their weight capacity to 310 lbs. with a maximum arresting force of the harness (1,800 lbs). If necessary, harnesses rated with capacity above 310 lbs. may be special ordered.

Note: Manufactures are constantly developing new tie-off devices, so check with the Safety Department to solve any fall protection problem versus going forward with a makeshift or otherwise unapproved system.

8.14.6.2 Inspection

To ensure that personal fall protection equipment will perform its ultimate function – saving an employee’s life – it must be inspected prior to each use by the employee, and properly stored. The life of a harness and lanyards will vary greatly depending on the amount of wear received, and what type of environment it is used in. A harness worn by a manager a couple time per week will have a much longer life than one worn by a carpenter, laborer, or ironworker in the field on a

daily basis. Regardless, each harness and lanyard has a maximum serviceable life of five (5) years from the date of manufacture; anything older than five (5) years must be taken out of service, and replaced unless otherwise approved by the Project Director.

To maintain the service life of RRP fall protection equipment it should be stored it in a place free from chemical exposure, moisture, and incidental damage (cuts, burns, etc.). Daily inspections by employees should cover the following items:

8.14.6.3 Webbing

Grasp the webbing 6 – 8 inches apart, and bend the webbing to form an inverted "U." The resulting surface tension makes damaged fibers or cuts easier to see. This should be repeated for the entire length of the webbing on each piece of the webbing. Also check the connecting points where the webbing comes into contact with the metal components for wear as this is often where the first signs of excessive wear and tear to the webbing begin to show up. Furthermore, equipment should be removed from service if any of the following conditions exist in the webbing material:

a. **Heat Damage** – excessive heat damage will appear as a shriveled brownish smear or smudge. Fibers will break under loading conditions or when flexed. As always, RRP harnesses and lanyards should never be used or stored in conditions that exceed of 180 degrees Fahrenheit.

b. **Chemical Damage** – Usually results in a change in color and a loss of elasticity in the webbing.

c. **Molten Metal or Open Flames** – Webbing strands fuse together; hard shiny spots are formed.

d. **Paint and Solvents** - Paint that penetrates and dries restricts the movement of the webbing fibers; drying agents and solvents of some chemicals can cause chemical damage. Note that RRP marks each harnesses or lanyard with a non-solvent based chemical.

8.14.6.4 D-Ring (s) & Back Pads

Check D-rings for distortion, cracks, rust and corrosion, weld splatter, and sharp edges. The D-ring should pivot freely in the back pad, and the plastic back pad should be free of any cracks or other damage.

8.14.6.5 Tongue / Grommet Buckles

Buckle tongues should be free of distortion in shape and motion. They should overlap the buckle frame and move freely on the frame. Check for distortion and sharp edges. The tongue receives heavy wear from repeated buckling an unbuckling. Inspect for loose, distorted, or broken grommets. The webbing should not have any addition holes made in it.

8.14.6.6 Friction and Matting Buckles

Inspect the buckle for distortion. The outer bars and center bars must be straight.

Pay special attention to corners and attachment points of the center bar.

8.14.6.7 Lanyard Inspection

Check lanyard material for cuts, burns, abrasions, kinks, knots, broken stitches. Inspect the snaphook, locks and eye distortion, and ensure that all locking mechanisms seat and lock securely. Once locked, the locking mechanism should prevent hook from opening. Visually inspect shock absorber for any signs of damage, paying close attention to where the shock absorber attaches to the lanyard. Verify that the point where the lanyard attaches to the snaphooks are free of defects. Verify that there is no visible "WARNING TAG" which notifies the user that the lanyard has been exposed to a fall.

Inspect snaphook for any hook and eye distortions, cracks, pitted surfaces or corrosion. The keeper latch should not be bent, distorted or obstructed. Verify that the keeper latch seats into the nose of the hook without binding. Test the locking mechanism to verify that the keeper latch locks properly.

8.14.6.8 Retractable Lanyard Inspection (Self-Retracting Lanyard)

Start by visually inspecting the outer casing to ensure there is no physical damage. Ensure all nuts and/or rivets are tight and that all cable ends are securely crimped and cable eye and rubber stops are in place. Ensure the entire length of the cable/nylon strap is undamaged and retracts freely. Test the unit by pulling sharply on the cable/strap to verify that the locking mechanism is operating correctly.
Inspect snaphook for any hook and eye distortions, cracks, pitted surfaces or corrosion. The keeper latch should not be bent, distorted or obstructed. Verify that the keeper latch seats into the nose of the hook without binding. Test the locking mechanism to verify that the keeper latch locks properly.

8.14.7 Care

Store Personal Fall Protection Equipment separately, in a cool dry place, not subjected to direct sunlight and away from tools and sharp objects to prevent cuts or other damage. Harnesses should be kept off floors and away from exposures to chemicals that degrade synthetics. Ideally, body harnesses and lanyards, should be stored on a hook or hanger.

8.14.8 Replacement

When a harness or other fall protection item becomes worn or damaged, or is suspected to be damaged, and/or it has been involved in arresting a fall, it shall be taken out of service and immediately returned to the employee's supervisor for replacement.

8.14.9 Rescue Procedures

Retrieval/Rescue methods shall be identified in the Work Activity Plan and in place prior to start of any fall hazard related work activities. Retrieval and emergency procedures shall be planned and communicated to all employees prior to the start of any work activity.

8.14.10 Training

RRP will provide each employee who might be exposed to a "fall hazard" appropriate training in

the following areas:

a. The nature of fall hazards in the work area and the expectations for adherence to 100% Fall Protection policy.

b. The proper selection, use, limitations, maintenance/storage, and inspection of all PFAS devices and other safety systems for the task that they will be asked to perform.

c. The correct procedures for erecting, maintaining, and disassembling vertical and horizontal static line systems, warning line systems, and controlled access zones.

d. Procedures for the removal of defective or damaged PFAS components.

e. Employee's role in the execution of the fall protection plan; specifically, employees should be reminded that if they are not sure how or where to connect or attach to, that they are to ask their supervisor for further clarification.

f. Suspension Trauma hazards, Post-fall rescue procedures, and self-rescue techniques where applicable.

Note that a written certification of training record must contain the name of employee, date trained, and signature of competent person conducting the training. If new types, brands, or systems are incorporated into the operations, the training must be updated.

8.14.11 Applying U-clips

The correct sequence for applying U-clips to a piece of wire rope is described below:

a. Turn back the appropriate amount of cable from the end of the piece being worked on. This amount varies with the diameter of the wire rope, but is typically from 12 to 18 inches.

b. Apply the first clip nearest the very end of the cable. Always leave a couple of inches of extra cable beyond the clip. Be sure to apply the clip properly, the U-bolt goes around the *dead end* of the cable, (the U bolt tends to squeeze or crush the strands of wire as it is tightened, this is why the U bolt should never be placed around the "live" side of the wire rope) while the saddle goes around the *live end*. Tighten the nuts on the U- clip evenly, and to the torque recommended by the clip manufacturers.

c. If a thimble is being used, insert it into the loop, and then apply the second clip in the same fashion as the first, but only finger tighten the nuts.

d. Apply additional clips evenly between the first two clips. Two clips are usually sufficient for wire rope under 1/2 inch, but three or more are often used for safety. Wire rope of diameter 3/4 inch or greater requires four or more clips. (Check manufacturers specifications)

e. Tighten all clips to the recommended torque. Apply the load and re-tighten the clips. This re-tightening is important, as wire rope tends to shrink in diameter as load is applied. If being used for safety purposes such as a lifeline, the clips should be checked every day prior to use to ensure the clips have not become loose.

HOW TO APPLY CLIPS
Correct and incorrect methods for using clips and thimbles on wire rope

Right Way for Maximum Rope Strength

Wrong Way - Clips Staggered

Wrong Way - Clips Reversed

The saddle of the clip rests against the "live" portion of the wire rope while the U-bolt rests on the short, "dead end" portion of the wire rope. Using clips improperly severely weakens the connection, making it unsafe.

NOTE: "Never Saddle a Dead Horse"

8.15 Impalement Protection

This section applies to all work activities where employees work around or over exposed, projecting, reinforcing steel or other similar projections.

Employees working at grade or at the same surface as exposed **vertical** or tilted protruding reinforcing steel or other similar projections shall be protected against the hazard of impalement by guarding all exposed ends that extend up to 42 inches above grade or other work surface, with protective covers, or troughs.

Employees working at grade or at the same surface as exposed **horizontal** protruding reinforcing steel or other similar projections shall be protected against the hazard of impalement by guarding all exposed ends that extend up to 6 feet above grade or other work surface, with protective covers, or troughs.

When employees are working at any height above exposed rebar or other impalement hazards, fall protection/prevention is the first line of defense against impalement. Fall protection/prevention is also applicable when the rebar is below grade, e.g., footings or other excavations, where a fall into a trench would present an impalement hazard.
Protective covers used for impalement protection shall be made of wood, plastic, or other materials. The protective covers shall have a minimum 4-inch by 4-inch square surface area, or if round, a minimum

diameter of 4 1/2 inches. The protective covers shall capable of preventing a 250 lb bag of dry sand from being penetrated.

8.16 Electrical Work Safety

Live parts to which an employee might be exposed must be put into a safe work condition before an employee works on or near them (within the limited approach boundary), unless work on energized components can be justified.

NOTE: All other options must be exhausted before working on live equipment.

Conductors and parts of electrical equipment that have been de-energized must be locked out or tagged in accordance with the Hazardous Energy Control section of this Plan, before any work may commence.

RRP requires ground fault protection for employees for all temporary wiring installations. All 125-volt, 15-, 20-, and 30-amp receptacle outlets that are not part of the permanent wiring must have GFCIs. For receptacles other than 125 volt, 15, 20, and 30 amps, either GFCIs or an assured grounding program may be used.

Projects/contractors that do not have an assured grounding program in place must use GFCIs for all circuits on which portable electrical hand tools are used; this must be included as a requirement in the contract documents.

GFCIs must be listed by Underwriters Laboratory (UL) and bear the UL mark or the mark of another government-approved agency. GFCIs should be inserted in the circuit as close to the electrical source as practical.
All electrical connections and repairs must be performed in accordance with regulatory authority's requirements and by a qualified electrical person.

Faulty equipment or equipment yet to be tested must be tagged as "out of service" until it is repaired or tested by a qualified electrical person.

8.16.1 De-Energizing Live Parts

Electrical parts operating at 50 volts or more must be de-energized and locked and tagged out to the maximum extent feasible before they are maintained or repaired, or if parts are exposed at or beyond the limited approach boundary.

If de-energized, but not locked and tagged out, parts must be treated as live — except equipment with a cord and plug that is under the direct control of the employee performing the work.

Situations/conditions when de-energizing is not required are:

- Increased or additional hazards, such as interruptions of life support systems, shutdown of hazardous location ventilation equipment, removal of illumination for an area, or deactivation of emergency alarms.
- If the risk is so minimal that de-energizing is a greater hazard, such as an inspection where no part of the inspector's body passes beyond the restricted or prohibited boundaries.

- Infeasibility due to equipment design or operational limitations that include:
  - Testing of electric circuits that can only be performed with the circuit energized.
  - Work on the circuits that form an integral part of a continuous process that would otherwise need to be completely shut down, creating a greater hazard, in order to permit work on 1 circuit or piece of equipment.
- Energized parts that operate at less than 50 volts need not be de-energized if there is no increased exposure to electrical burns or to explosion due to electric arcs.

If de-energizing parts introduces additional risk or is impractical, due to the design of the equipment or operational limitations, a documented plan such as a detailed Job Safety Analysis (JSA) should be used. The documented plan must be included in the general work plan for working at or beyond the restricted boundary, and/or EWP in the general work plan for working at or beyond the prohibited boundary of exposed electrically energized parts of 50 volts or greater.

Stored electrical energy that might endanger employees must be released. Discharge capacitors with a device approved for this use, and short-circuit and ground high-capacitance elements if the stored electrical energy might endanger personnel.

Field conditions and planning documents must be verified as "matching." Resolve differences before releasing the work. If there are unresolved differences that could result in an inadvertent re-energization from another source, work may continue provided extra precautions are taken during the potential exposure; precautions include the following:

- Verify the circuit is de-energized.
- Conduct work using the safeguards required for energized systems for the remainder of the work.
- Use positive measures including approved grounds on both sides of the work, or where required, removal of circuit elements.

NOTE: An EWP is not required in cases where no possibility of re-energization exists.

It is acceptable practice to physically disconnect the energy sources of systems, equipment, or components to remove hazards (such as lifting cables from circuit breakers in an energized panel). However, this physical disconnect must be left in a condition that prevents inadvertent reconnection (such as cutting back the cables in the energized panel), or physically identify the disconnection (such as tagging the cables left coiled in the energized panel) and communicate system status to affected workers and the controlling organization.
NOTE: Identify and isolate in accordance with this Plan if there are employees downstream who could be injured by re-energization.

Safe condition (zero energy) checks must be performed on any system, equipment, or component disconnected from its energy source immediately prior to performing work.

Tripped circuit breakers and GFCIs may not be re-energized until it has been determined that the equipment and circuit can be safely reenergized.

Only electrical workers or electrical engineers are authorized to reset GFCIs that trip more than once.

8.16.2 Work on or Near Energized Electrical Parts

A hazard analysis must be performed for all work on or near liver parts operating at 50 volts or more where an electrical hazard exists. The hazard analysis will include a shock hazard analysis and flash hazard analysis performed by a qualified electrical person.

All work at and beyond the prohibited boundary must be performed under an approved EWP.

Before work commences, a separate Safety Task Analysis, and briefing must be conducted with all involved personnel and will specifically include electrical hazards associated with the work, procedures to be followed, special precautions, energy source controls, and PPE requirements.

Barricades must be used in conjunction with safety signs where it is necessary to prevent or limit employee access to work areas containing live parts. Conductive barricades will not be used where it may cause an electrical hazard. Barricades may be placed no closer than the limited approach boundary.

If signs and barricades do not provide sufficient warning and protection from electrical hazards, an attendant must be stationed to warn and protect employees. The primary duty and responsibility of an attendant will be to keep unauthorized personnel outside the area where exposure to an electrical hazard exists. The attendant must remain in the area as long as the potential for hazard exposure exists.

8.16.3 Underground Temporary Electrical Components

Temporary electrical components placed underground must be marked so that identification and approximate location are readily apparent aboveground.

8.16.4 Electrical Testing

Only electrical workers or electrical engineers who are trained in the operation and limitations of the equipment may use electrical test equipment.
Electrical test equipment will be visually inspected immediately before use — do not use if it is defective. Identify defective test equipment by tagging it out of service and repair or dispose of it properly.

Electrical test equipment may be used only for intended applications. Make operating instructions and limitations for the test equipment available to the electrical worker. Check electrical test equipment for proper operation immediately before and after use when verifying that circuits are de-energized. When performing zero energy checks, ensure that stored electrical or mechanical energy cannot reenergize the circuit.

NOTE: If the circuit to be de-energized is over 600 volts, the test equipment is checked against a known source before and after the circuit test.

8.16.5 Electrical Equipment

Portable electrical equipment and extension leads must be inspected for damage or defects prior to each use. To help ensure protection against electrical shock project personnel can utilize either a colored coding process for indication of inspection or a GFCI protection device.

The tests and inspections must be conducted by an competent person and must be recorded.

Color Coding for Testing – When using a colored inspection indication process the following color coding should be used for electrical equipment testing:

January to March	**WHITE**
April to June	**GREEN**
July to September	**RED**
October to December	**ORANGE**

The marking system must remain legible between inspections.

Documentation of inspections will be retained on site for duration of the project.

Grounding - Frames of arc welding and cutting machines will be grounded.

8.16.6 GFCI Protection

GFCIs function only on AC voltage; GFCI test devices must not be used on DC circuits.

All circuit breakers/GFCIs must be positively identified as to which outlet they protect by numbering each breaker and its corresponding outlet.

GFCIs will be used on 120-volt, 15- and 20-amp single phase circuits as specified below:

- In damp or wet (standing water) work areas
- Outdoors
- When using portable, electric hand tools with cord/plug connectors
- For receptacles that are not part of the permanent structure wiring (including extension cords)

Exception: Equipment with cords and plugs and flexible cord sets used indoors for extended service and are not likely to be damaged.

Exception: Generators, portable or vehicle mounted, rated not more than 5 kilowatts where the circuit conductors of the generators are insulated from the generator frame and other ground surfaces (2-wire, 120-volt, single-phase ungrounded "isolated" output).

NOTE: A GFCI will not protect employees in contact with either 2 circuits at once or a circuit other than the one being used. A GFCI will only protect downstream on one circuit.

Lighting - Temporary lighting electrical sources must be equipped with GFCIs.

GFCI Testing - Electrical workers or electrical engineers will test GFCI receptacles and breakers at least monthly using the provided test button.

Users will test portable GFCIs using the test button provided before each use. An electrical worker should inspect/test portable GFCIs quarterly. A valid test can be performed by inserting a Hubbel GFT-2G testing device and rotating the knob clockwise until the GFCI trips. The device must trip at or before 6 mA. An alternate testing device is Sotcher Measurement G.F.I. tester, Model 440. Documentation verifying inspectors' qualification will be maintained on site and is subject to auditing.

NOTE: Do not use testers that cause a current on the ground wire.

- If the GFCI fails the test, tag it out of service and (if portable) remove from service.

NOTE: GFCIs with illegible marking systems must be considered unsafe and tagged and removed from service.

Tools - Employees must ensure that portable, electric hand tools meet the applicable procedures and manufacturer's instructions. Use double-insulated tools and equipment when appropriate.

8.16.7 Flexible Cords and Cables

- Extension cord sets will not be used as a substitute for the permanent wiring of a building.
- UL-listed flexible cords suitable for conditions and location will be used. Flexible cord sets used with grounding-type equipment must contain an equipment-grounding conductor.
- Extension cords should be inspected daily before use, except those used with appliances that are for extended service and not exposed to damage.
- Flexible cords and cables must be protected from damage.
- Surge suppressors must have a built-in circuit interrupter and have cord size equal to or greater than the cords on the equipment being served. Do not attach to building surfaces using staples or other means that may damage the cord. Do not "daisy chain" multiple outlet devices or surge suppressors.
- Damaged cord sets will be discarded. Cord sets that have breaks in insulation are repaired by an electrical worker so that the insulation is equal to, or better than, the original. Do not repair cords smaller than number 12 American Wire Gage (AWG).

NOTE: Cords and cables may be damaged by foot traffic, vehicles, sharp edges, pinching, or improper storage.

NOTE: Extension cords are an acceptable means of extending power provided they do not contribute to overload, are protected from damage, and are removed when not in use.

NOTE: Extension cords may be plugged into other extension cords, except when prohibited by the manufacturer. Such prohibition may be found on the label.

8.16.8 Blind Penetrations/Break-Ins

The following actions must be taken, as appropriate, when planning to perform a blind penetration or drill into a wall, floor, slab, or an excavation containing or suspected of containing electrical cords:

- Review all drawings and documentation. To the extent possible, thoroughly inspect the jobsite to determine if obstructions are in the drilling path before starting the job.
- Review the Excavation, Trenching, and Shoring section of this Plan, and follow the appropriate precautions.
- Review the Dismantling and Demolition section of this Plan, and follow appropriate precautions.
- If the permit to work process is in use, obtain a Permit to Work in accordance with this Plan.
- A review of the above information must be documented.

8.16.9 Core Drilling

Survey/scanning services will be used when necessary to confirm reference points and locate rebar and embedment's.

NOTE: Consider using the "Break-in/Penetration" process above to ensure adequate hazard identification and controls.

When possible, use existing penetrations as reference points to lay out or verify correct locations for core drilling.

Use of pneumatic-powered drilling equipment requires the use of safety chains or other equivalent safety/locking devices at all hose connections and couplings.

Drilling equipment will be provided with an additional external ground wire, No. 10 AWG or greater.

A GFCI device and concealed metal detector (dielectric drill stop) will be installed to ensure that the power is interrupted if metal embedment's are contacted during drilling operations.

8.16.10 Electric Code Compliance

Employees must use or install equipment that is certified, listed, labeled, or otherwise determined to be safe by an NRTL such as UL.

- Custom -made equipment or related equipment may be acceptable if the manufacturer states the components are safe for their intended use by its manufacturer on the basis of test data, which must be obtained by, or delivered to, and retained by the facility/owner.

- Onsite testing, certification, listing, or labeling can be performed by an NRTL.

Employees must design, install, and inspect new installations and modifications in accordance with applicable electric codes and standards.

8.16.11 Training

Training for construction employees and electrical workers will be conducted as follows:

- Construction employees receive basic instruction on electrical safety as part of their orientation.
- Employees who face a higher than normal risk of contact with electrically energized parts 50 volts or more to ground are trained as "electrical workers" in accordance with 29 CFR 1910 - Subpart S and 29 CFR 1926 - Subpart K.

  NOTE: A valid "electrician journeyman" certificate satisfies this requirement.
- Immediate supervisors (such as foremen and general foremen) have at least the same level of electrical safety training as the employees/workers they are responsible for, or for whom they plan or supervise work.
- If the employee is unfamiliar with the construction or operation of equipment or hazards associated with the task, additional training is required. In these cases, the supervisor documents the instruction the employee receives in the use of safe work practices for the voltage levels to be encountered and the selection, inspection, and use of PPE.

8.17 Hand and Portable Power Tools

No modifications or additions that affect the capacity or safe operation of tools will be made without the manufacturer's written approval. If the manufacturer will not approve modifications or changes, written approval from a registered professional engineer or the RRP Safety Representative may be considered. If such modifications or changes are made, the capacity, operation, and/or maintenance instruction plates, tags, or decals must be changed accordingly.

Supervisors will ensure that tools covered by this practice are:

- Inspected before use.
- Tagged or identified as defective and turned in for repair or replacement if found defective.
- In conformance with manufacturer's attachment and energy-level specifications.
- Equipped with required guards.
- Disconnected from their energy source when changing attachments or conducting repairs/maintenance on the tool.
- Not hoisted or carried by attached hoses or electrical cords.
- Used with appropriate eye, face, hand, foot, hearing, and respiratory protection.
- Connected to a ground-fault circuit interrupter (GFCI) when used in conjunction with an extension cord or other temporary power source.

Supervisors will ensure that hand tools are maintained and used properly, and that:

- Impact tools such as drift pins, wedges, and chisels are kept free of mushroomed heads.
- Portable power saws and grinders are equipped with approved blade or wheel guards. Blades and wheels must have the proper rating and revolutions per minute for the tool.
- Wooden handles of tools are kept free of splinters or cracks and are kept tight in the tool.

- Employees using hand and power tools and exposed to the hazard of falling, flying, abrasive, and splashing objects, or exposed to harmful dust, fumes, mists vapors, or gases are provided with particular personal protective equipment necessary to protect them from the hazard.

8.17.1 Electrically Powered Tools

Supervisors will ensure that portable electrical tools are:

- Double-insulated or grounded
- UL-listed, 115 or 220 volts AC or AC/DC marked accordingly by the manufacturer.
- Equipped with a constant pressure switch that shuts off power when pressure is released by the operator.

NOTE: Hand-held power grinders with wheels 2 inches or less in diameter, and routers, planers, laminate trimmers, nibblers, shears, scroll saws, and jig saws with blade shanks 1/4 inch wide or less, may be equipped with a positive "ON-OFF" switch.

8.17.2 Pneumatic Tools

Supervisors will ensure that portable pneumatic tools are equipped with:

- A tool retainer to prevent the tool from being ejected. Pneumatic nailers or staplers that operate at more than 690 kPa (100 psi) pressure and have automatic fastener feed with a safety device on the muzzle to prevent unexpected ejection of the fasteners.
- Pressure reduction devices to prevent any hose with an inside diameter of 1/2 inch or greater from whipping in the event of hose failure.
- "Deadman" switches.
- A positive means to secure the tool to the hose or whip to prevent the tool from becoming accidentally expelled.

8.17.3 Hydraulic Power Tools

Fluids used in hydraulic powered tools will be fire-resistant fluids approved under Schedule 30 of the Bureau of Mines.

8.17.4 Powder-Actuated Tools

Supervisors will ensure that:

- Operators of powder-actuated tools are qualified (and "licensed" if applicable) in accordance with the manufacturer's instructions and that this qualification is documented.
- Powder-actuated tools and loads are locked in a container, stored in a safe place when not in use, and are accessible only to authorized employees.
- Tools are operated in strict accordance with the manufacturer's instructions. Only the types of fastener and powder loads recommended by the tool manufacturer are to be used.

Employees are responsible for the following:

- Before use, inspect and test the tool in accordance with the testing methods recommended by the manufacturer to determine if it is in proper working condition.
- Know, to the extent possible, what is on the other side of material(s) being fastened.
- Before driving a fastener, check the line of fire to ensure that no one may be hurt if the fastener penetrates completely through the work surface.
- Use with the correct shield, guard, and/or attachments specified by the manufacturer.
- Fasteners are not to be driven into very hard or brittle materials; including cast iron, glazed tile, hardened steel, glass block, natural rock, hollow tile, or face brick.
- Fasteners are not to be driven into easily penetrated materials or materials of questionable resistance, unless backed by a material that prevents the fastener from passing completely through the other side.
- Tools should not be loaded until just before the intended firing time.
- Neither loaded nor empty tools are pointed at any person; hands are kept clear of the open barrel end.
- The tool should be held perpendicular to the work surface when fastening into any material, except for specific applications recommended by the tool manufacturer.
- In the event of a misfire, the operator should hold the tool firmly against the work surface for a period of 30 seconds and then follows the explicit instructions set forth by the tool manufacturer.
- The tool should not be used in a potentially explosive or flammable atmosphere.
- Tools should inspected, cleaned, maintained, and tested after each 1,000 fastenings.
- When misfired, cartridges are handled and disposed of according to the material safety data sheet/International Chemical Safety Card (ICSC).

8.17.5 Abrasive Wheels and Tools

Supervisors will ensure that employees working with grinding machines, cut-off machines, or other applications for abrasive wheels are trained in their safe operation and maintenance.

Employees are responsible for the following:

- Abrasive wheels are handled and stored in a manner that prevents damage to the wheels.
- Abrasive wheels and the mounting hardware or components of machines on which they are mounted are not modified or altered.
- Abrasive wheels are the correct size and type for the machine on which they are to be mounted and for the work to be performed.
- Abrasive wheels should be “ring tested” before mounting, and visually inspected before use daily.
- After mounting, new wheels should run at least 1 minute at full speed before work is applied or employees stand in front of, or in-line with, the wheel.

8.17.6 Woodworking Tools

Portable, power-driven circular saws must be equipped with a blade diameter greater than 2 inches with guards above and below the bare plate or shoe. The upper guard covers the saw to the depth of the teeth, except for the minimum arc required to permit the base to be tilted for bevel cuts. The lower guard covers the saw to the depth of the teeth, except for the minimum arc required to allow proper retraction and contact with the work. The lower guard automatically and instantly returns to covering position when the tool is withdrawn from the work.

8.17.7 Jacks – Lever and Hatchet, Screw, and Hydraulic

Employees are responsible for the following:

The manufacturer's rated capacity is legibly marked on jacks and is not exceeded.

- Jacks are provided with a positive stop to prevent over travel.
- Blocking and cribbing are provided at the base of the jack when necessary to ensure a firm foundation.
- A wood block is placed between the metal cap of the jack and the load when there is a possibility of slipping.
- After a load has been raised, it is immediately cribbed, blocked, or otherwise secured.
- Jacks are properly lubricated at regular intervals in accordance with the manufacturer's instructions.

8.17.8 Chain Saws

- Chain saws must have an automatic chain brake or kickback device.
- The idle speed will be adjusted so that the chain does not move when the engine is idling. Operators must wear eye, ear, hand, foot (safety shoes), and leg protection as a minimum.
- Chain saws will not be fueled while running, hot, or near open flame. Saws should not be started within 10 feet of a fuel container.
- The operator will hold the saw with both hands during cutting operations.

8.18 Demolition and Dismantling

8.18.1 Initial Survey

Before starting dismantling or demolition operations (such as structures, piping, walls, floors), the possibility of unplanned collapse must be assessed/surveyed by a Competent Person.

Those assigned the responsibility of planning must ensure that appropriate permits are issued.

The survey will aid in determining the nature and extent of hazards, and to facilitate the creation of an appropriate tender document. During the survey subsequent phases of a project, the Competent Person should be assisted by personnel familiar with such processes as electrical services, isolation systems, drains, methods of cleaning or shutting down contaminated plants, and interaction with third parties in the case of pipelines and jetties.

An example of a survey report is inserted below titled "Example Questions for an Initial Survey Report".

The survey must include the condition of the structure to be demolished as it pertains to framing, floors, walls, risk of unplanned collapse, and any adjacent structure where employees may be exposed to risk. Work will be so planned that no employee will cut beams that support his work platform.

The Competent Person performing the survey will provide a written report the Site Manager or designee. The survey report becomes the basis for developing a demolition plan.

SAMPLE QUESTIONS FOR AN INITIAL SURVEY REPORT

- What plans for the site and surrounding area are available and show access roads, services to the site, the relationship of any pipelines to nearby third-party sites, and modifications or alterations to the original arrangements?
- Does the location of the demolition site affect the neighborhood, such as noise, dirt, vibration, or risk of structures collapsing?
- What are the electrical zone classifications for adjacent areas where operations may continue during demolition?
- Is access to the site for initial inspection safe both above and below ground?
- Has the site been adequately decommissioned or otherwise made safe? What records are available?
- Does any area require specialist attention to deal with residual toxic materials such as asbestos and lead compounds?
- Are there any areas where hazardous substances may have collected? Do any vessels have separate linings that may release flammable or toxic residues on demolition? Is any ground on or surrounding the site contaminated with oil or toxic deposits?
- What is under the ground? Does the site contain locations where heavy loads cannot be placed with safety? Is there a requirement to provide new access roads? Are there any conditions that might limit excavations?
- Are there any height conditions that could restrict operations, especially overhead power lines?
- Can the site be easily isolated from all external services? Do some services need to be retained or diverted, such as electricity, air, water, steam or sewage? Can these services be adequately identified?
- Are the existing provisions for fire-fighting and emergency medical services adequate? If not, how will adequate coverage be provided? Is adequate telephone communication to outside emergency services available?
- Must external authorities be notified? Who is responsible for such notification?
- Is there a need to protect adjacent property from the effects of demolition such as ground vibration, dust, and missiles?
- Will demolition affect the integrity of an adjacent property? Could land slip occur? Will people need to be evacuated? Could leakage or hazardous substance emissions occur off site?
- How will safe areas be defined or allocated for housing contractor staff, providing eating and washing facilities, and parking vehicles?
- How will safe areas be defined for cutting, cleaning, storing, or handling dismantled materials without posing danger to site employees or other persons?
- Could the local climate or weather (wind, heat, cold, snow, tides, or waves) adversely affect the safety of a demolition project?
- What security arrangements will be required to protect any adjacent property?
- How will the removal of commercially valuable scrap metals, such as nonferrous metals and mercury, be controlled and monitored to protect the interests of the client and contractor?

8.18.2 Ongoing Inspections

A Competent Person will continually inspect the structure to ensure the stability of remaining columns and walls where employees are working.

8.18.3 Demolition Plan

Once a firm directive of demolition has been issued, a written plan outlining the specific sequence of events for demolition must be prepared. This plan must be approved by the management team overseeing the project and reviewed by RRP Safety before demolition work begins. The final demolition plan may not be deviated from unless a safer method of demolition is discovered, and reviewed and approved by the original plan approvers. Any changes must be documented in the plan.

The Demolition Plan will cover items such as the following:

- Precisely define the scope of work.
- Identify each process material or service to be isolated and specifying the method of isolation. All pipe work, ducting, and cables, both above and below ground, must be taken into account.
- Identify all hazardous substances that should be removed under supervision before demolition commences. Specialist contractors may be required to safely remove asbestos, lead compounds, and sludge.
- Critically examine systems and procedures for controlling hot work.
- Note any limiting conditions or circumstances that a contractor might need to be aware of to prepare a realistic tender. Such conditions include limits on work hours, permit system operations, and special environmental considerations.
- Specify requirements for initial medical examination of all contractor employees, especially if site cleanup involves burning lead or lead-coated materials.

  These precautions are intended to place most of an installation into a clean state, from oil, gas, and other residues, and reduce the possibility of incidents arising through errors or misunderstandings once demolition contractors are on site.

8.18.4 Lock, Tag, Try, And Test

As directed in the Hazardous Energy Control section of this plan, all electric, gas, steam, or other process or utility lines must be identified, verified at the source before capping/blinding, or otherwise cut before any work is begun.

8.18.5 Structures Subject To Collapse

Where personnel are required to enter structures that are subject to collapse due to ongoing demolition work, work areas must have adequate shoring in place to prevent untimely collapse. Structures will be inspected daily by a Competent Person, and inspections will be documented and filed.

8.18.6 Hazardous Materials

Asbestos or other toxic insulation materials, glass, and other hazardous materials must be removed, or otherwise ensured to be safe, before the start of general structural demolition.

- Identification of the materials and the proper abatement/removal processes will be implemented. Hazardous substances, process materials, and services include the following:
  - Residual feedstock's, process materials, and products in pipelines, piping and equipment, and storage vessels and drains
  - Catalyst materials in process vessels
  - Residual chemical stocks in treatment systems
  - Surface deposits such as lead in tankage, pyrophoric iron, and vanadium in fired heaters and boilers
  - Insulation materials, particularly asbestos
  - Electrical, water, steam, compressed air, and any other services unnecessary for any remaining activities
  - Interconnecting piping such as flare or blow down systems
  - All sources of ionizing radiation
- Disposal of materials will be in accordance with applicable standards.

8.18.7 Barricading

Openings in elevated workplaces will be protected with barricades.

Where debris is dropped through floor openings or through walls to the ground below, chutes will be used to control flying debris, dust, and other hazards. Chute openings will be protected and gates provided to close chutes when the discharge end is not protected.

Single-story drop areas will be barricaded with a clear area around it proportional to the height from which materials are dropped.

8.18.8 Access

Entrances to the building will be covered with sheds or canopies designed to allow employees safe access and provide overhead protection from falling debris. They will extend at least 6 feet away from the structure and be at least 2 feet wider than the entrance and capable of withstanding a loading of 5 lb./sq. ft.

All other access ways will be barricaded.

Safe, temporary access ways to all work areas will be provided where permanent access ways are removed.

8.18.9 Temporary Bracing

Walls left standing must be capable of self-support or will be shored. Wind loading will be factored in as required.

No cement or masonry walls will be knocked down onto above ground floors unless they are designed to handle the anticipated impact loading.

Skeleton steel will be dismantled tier by tier and no lower load-bearing members cut until upper stories are removed. Steel left in place will be self-supporting or will be adequately braced.

Structural supports and beams left up will be cleared of loose materials as demolition progresses downward.

8.18.10 Equipment

Demolition equipment will meet appropriate crane and heavy equipment safety requirements.

The demolition ball will not exceed 50 percent of the cranes rated capacity at specified boom length/angle and will not exceed 25 percent of the line-breaking strength.

The ball will be connected by a swivel-type attachment.

8.18.11 Housekeeping

Debris and trash will be continually wetted to keep dust levels down.

Trash and debris will be removed daily so as to minimize fire hazards and maximize safe access to, and egress from, the work area.

Hazardous materials will be separated and disposed of in accordance with applicable standards.

8.18.12 Materials Disposition

The environmental impact of the demolition material may be considerable; therefore, Site Management should seek the advice of professional environmental services where necessary.

Environmental issues to be considered include the following:

- Dumping rubble or potential spillage of material
- Potential traffic hazards while in transit
- Disposal of contaminated soil and sludge
- Cutting up and removing plant components
- Burning wood and other combustibles, taking into account possible toxic fumes from contaminants
- Draining lakes and reservoirs and pumping out sumps, tanks, and drains
- Filling shafts, pits, trenches, sumps, and tunnels
- Removing or making safe underground pipe work, cabling, foundations, and piling

- Removing superstructure and piling from jetties
- Access to and method of excavating cross-country pipelines, particularly where they cross rivers, roads, railways, and utilities
- Landscaping, grading, and reinstating land or fences for cross-country pipelines
- Transporting or towing heavy plant or structures to another site or location for breaking

8.18.13 Project Conclusion

At the conclusion of demolition operations, RRP should perform a final review with the contractor to determine whether the site is ready for a new owner or can be left without further attention. Careful supervision of the contractor during the final phases of a project is required to ensure that safe conditions are established before the contractor leaves the site.

8.19 Gasoline-Powered Equipment

Most construction sites have gasoline equipment and thus introduce the hazard of potential fire and dangerous vapors. Welding equipment, generators, equipment that must be used inside the confines of an enclosed building shall have alternative means of energy production, i.e. propane or electrical powered. Contractors on this project shall abide by the following procedures and requirements.

8.19.1 Fire

OSHA and fire departments have regulations regarding quantity and methods of handling gasoline. The following rules will minimize the danger from fire:

- Review OSHA and local fire department requirements and comply with these standards.
- Storage of gasoline containers must comply with OSHA regulations, and fuel transfer operations must be conducted outside of the building.
- When drums are used for storage, use drum pumps that are designed specifically for flammable liquids. Use safety bungs for the vent opening. These are equipped with perforated cylindrical screens, which act as fire baffles. The use of a gravity feed or bottom draw drum is prohibited.
- Only UL listed metal safety cans with self-closing safety latch covers and flash arrestors are permitted on site. Plastic containers are prohibited on site.
- Shut down engine when refueling and allow exhaust to cool off.
- A 20-pound ABC dry chemical fire extinguisher must be available wherever large quantity flammable liquids are handled.
- No smoking near gasoline storage.
- All drum/containers will be properly labeled per OSHA 1926.59 Hazard Communication

8.19.2 Gases

Gas engines exhaust carbon dioxide and carbon monoxide. A mixture of the gases usually is heavier than air although heat may cause it to rise. Both are without color, taste or smell. Light concentrations cause headache and nausea. Death is swift in heavy concentrations. Therefore, extreme caution must be taken when operating gas engines.

Do not run gas engines in pits, excavations, manholes, pipe or crawl spaces, confined spaces, etc. without positive ventilation. Always pipe gas engine exhausts to outside air when an engine is operated in an enclosed space. Start blower before engine. If engine stops, be sure space is well blown out before sending anyone in to restart. If in doubt, check for gas with CO Tester.

8.20 Fire Prevention and Protection

The purpose of a fire prevention and protection program is to ensure that a fire does not occur, cause an unacceptable onsite or offsite release of hazardous material, or threaten employee health or safety, public health or safety, or the environment. General requirements toward this end include the following:

- Define requirements for welding, cutting, and heating permits.
- Limit accumulation of combustible materials to the quantity required for current needs.
- Separate combustibles from ignition sources.
- Use noncombustible or fire-retardant materials whenever possible
- Dispose of empty crates and containers as soon as possible.
- Keep inside stockpiles of combustible construction materials to a minimum.
- Provide only approved containers for flammable or combustible liquids and for cloths, rags, and waste soaked with flammable or combustible materials.
- Empty trash and rag containers daily.
- Do not block fire lanes.
- Provide engineering or administrative controls in work areas where the potential exists for accumulation of flammable vapors to make certain that the concentration of such vapors does not exceed 10 percent of the lower explosive limit.

Electrical wiring and equipment will be installed in accordance with applicable standards.

Smoking will be prohibited in areas where fire hazards may exist, and **No Smoking** signs must be posted.

Welding, cutting, burning, and other heat-producing activities will be carried out in accordance with the Hot Work section of this Plan.

8.21 Fire Extinguishers

Fire extinguishers are considered first response devices designed for use on small fires. Employees assigned to fire prevention/protection will:

- Locate portable fire extinguishers throughout facilities in accordance with applicable codes and standards.
- Keep fire extinguishers unobstructed and clearly in view.
- Always maintain clear access to a fire extinguisher and conspicuously mark and identify fire extinguisher locations.
- Obtain assistance from the HSE Representative before relocating fire extinguishers.
- Inspect fire extinguishers in accordance with applicable codes and standards..
- Document the results of the inspection.
- Maintain extinguishers fully charged and operable.

- Take immediate corrective action for any portable fire extinguishers having a deficiency (such as being empty, missing, not mounted, or a broken seal).

Portable fire extinguishers for welding and cutting operations do not have to be secured at temporary locations.

A fire extinguisher rated not less than 4A must be provided for each 3,000 square feet of protected building area and in each yard storage area. Travel distance to any fire extinguisher must not exceed 75 feet from any protected area inside or outside a building.

One or more extinguishers rated not less than 4A must be located on each floor of a multi- storied building. At least 1 4A-rated extinguisher will be located adjacent to a stairway in a multi-storied building. Extinguishers rated not less than 10B must be provided within
50 feet of any area in which more than 5 gallons (19 liters) of flammable or combustible liquids or 5 pounds (2.3 kilograms) of flammable gas are being used.

NOTE : This does not apply to fuel tanks of motor vehicles.

NOTE : Carbon tetrachloride extinguishers are prohibited.

In areas where 2A extinguishers are required, the following may be substituted for each extinguisher:

- One 55 gallon (209 liter) drum of water with 3 pails
- One water hose of not less than 1/2 inch in diameter, of not more than 100 feet in length, and with a discharge capacity of 5 gallons (19 liters) per minute
- One fire hose of not less than 1-1/2 inch in diameter, of not more than 100 feet in length, and with a discharge capacity of 25 gallons per minute

NOTE: The hoses referred to above must be of sufficient length and have a stream range so as to reach all points in the protected area. These substitutions will not apply where the possibility of freezing exists.

Extinguishers must be conspicuously located and marked, readily accessible, and immediately available in case of fire. Extinguishers will be installed on hangers or in the brackets provided, and at the appropriate height according to codes and standards.

Fire extinguishers required during work or scaffolds must be readily available (within reach) to the employees.

8.21.1 Inspections

Managers/supervisors will ensure that fire inspections are conducted and the following tasks are done:

- With support from RRP Safety, develop specific fire protection checklists that incorporate applicable systems.
- Take the necessary corrective actions.

Extinguishers must be inspected monthly, or more often when circumstances warrant, to ensure that they have not been actuated or tampered with and to detect any damage.

Inspection tags must be placed on the extinguishers, and the date of any inspection will be indicated. Records should be maintained for 1 year.

Stored pressure fire extinguishers that require 12-year hydrostatic testing will be emptied every 6 years and subjected to applicable maintenance procedures.

Hydrostatic testing or weighing must be done in accordance with applicable codes and standards.

Each extinguisher must have a durable tag securely attached to show the maintenance test and recharge date and the initials or signature of the person who performed the services. A discharged fire extinguisher must be removed from service immediately and replaced.

8.21.2 Nonemergency Use of Fire Hydrants and Fire Protection Systems

Nonemergency tie-ins to fire hydrants and other fire protection systems are prohibited, except as permit-approved by the responsible fire department with jurisdiction in the area.

8.21.3 Basic Fire Extinguisher Training

Where the employer has provided portable fire extinguishers for employee use in the workplace, the employer must also provide an educational program to familiarize employees with the general principles of fire extinguisher use and the hazards involved with first-stage firefighting.

Annual fire extinguisher training includes the following:

- Types of fire hazards
- Correct type of fire extinguisher to use
- Proper use of fire extinguishers
- The location of fire extinguishing equipment
- Good housekeeping practices
- Proper response/notification in the event of a fire
- Recognition of potential fire hazards

8.22 Welding

Some construction areas may be temporarily designated as welding areas until completion of the job.

Designated welding areas will be:

- Fire resistive or of noncombustible construction
- Provided with noncombustible/FR barriers against hot slag and sparks if fire resistive or noncombustible construction is not provided
- Cleared of combustible materials on floor, ceiling, wall, or duct openings within 35 feet of the designated area

NOTE: The separation distance and protective measures for "low" hazard hot work is determined by the supervisor, in consultation with RRP Safety.

- If the above requirements cannot be met, then the perimeter of the area is provided with noncombustible/FR barriers against hot slag and sparks

The designated welding area will have a fully charged and serviced portable fire extinguisher (minimum 2A-10BC rating) or other extinguishing agent(s) appropriate for conditions, or as specified on the hot work permit.

The area will have adequate ventilation.

Inside buildings, the designated welding areas will be provided with visual protection, such as surrounded by a booth or screen constructed of one of the following materials:

- Metal
- Flame-resistant fabric that is opaque to most optical radiation
- Transparent, colored, polyvinyl-chloride material formulated with a FR and UV-visible absorber in the range of 200 to 3000 nanometers

Those welding will wear FR PPE (such as FR coveralls or leathers).

NOTE: Exceptions to wearing FR PPE must be approved by the supervisor and RRP Safety.

8.22.1 Supervisor Responsibilities for Welding Areas

The supervisor's responsibilities include the following:

- Verify that the area has been reviewed and meets the requirements for a "designated" hot work area.
- Verify that a portable fire extinguisher is readily accessible.
- Verify that the designated area has adequate ventilation.
- Verify that employees have the appropriate PPE. Hazards include infrared and ultraviolet radiation, radiant heat, fumes, sparks, and hot slag. All employees (cutters, welders, helpers, fire watches/standby persons, as well as other personnel adjacent to the welding areas) are protected by removing themselves from exposure to the hazards or by use of equipment, such as proper eye protection, protective clothing, shielding, and screens as appropriate.

8.22.2 Supervisor and Welders

The supervisor and welders have shared responsibilities including the following:

- Verify that hot work equipment to be used (such as regulators, pressure-reducing valves, and manifolds) is listed or approved by a nationally recognized testing laboratory for the intended use.
- Verify that oxygen-fuel gas systems (such as oxygen/acetylene welders) are equipped with listed or approved backflow valves and pressure-relief devices.

8.22.3 Gas Welding and Cutting Safety

Torches and Hoses - Fuel-gas hoses and oxygen hoses must be easily distinguishable from each other. The contrast is made by different colors or by surface characteristics readily

distinguishable by touch.

Oxygen and fuel-gas hoses must not be interchangeable. Single hoses having more than 1 gas passage will not be used.

Gas welding and cutting equipment will be inspected at the beginning of each shift to identify any of the following defects:

- Leaking/damaged hose or hose couplings
- Leaking/damaged fuel-gas pressure regulators and gauges and related connections
- Leaking/damaged torch heads or shutoff valves and related connections
- Clogged tip openings

Faulty or defective equipment must be reported to the supervisor and, until repaired, must be tagged out-of-service with a **Danger –Don't Use It – Unsafe Tag**.

Clogged tip openings on torches will be cleaned with approved cleaning wires, drills, or other devices designed for this purpose.

Hoses and other equipment will be kept clear of walkways, ladders, and stairs.

Torches will be ignited only by friction lighters or other approved devices; do not use matches, flame lighters, or hot work to ignite torches.

Torches and hoses will be completely depressurized (bled) before storage or at the end of each shift.

Torches and hoses must not be stored in enclosed areas (such as gang boxes or lockers) while connected to cylinders.

Gas Cylinders - For requirements pertaining to compressed gas cylinders, refer to Compressed Gas Cylinders in this Plan.

8.22.4 Arc Welding and Cutting Safety

Exposed current-carrying parts of electrode holders will be insulated in a manner that provides full protection against electrical shock for arc -welding machine operators.

Arc-welding cables will be flexible, completely insulated, and capable of handling the maximum current requirements of the work.

Cables will be kept free from repairs and splices for a minimum distance of 10 feet from the electrode holder.

Exception: Cables with standard insulated connectors, or splices with insulating quality equal to that of the cable, may be permitted.

If it is necessary to splice lengths of cable, insulated connectors will be used that are equivalent to

that of the cable. If cable lugs are used, the resulting connection will be fastened securely to provide a good electrical contact; completely insulate exposed metal parts of the lugs.

If electrode holders are left unattended, the electrodes will be removed, and the holders will be placed so that they cannot make electrical contact with employees or conducting objects.

Electrode holders must not be dipped in water.

The power supply to the equipment will be turned off whenever the arc-welding machine operator leaves or stops work for any length of time, or when the arc-welding machine is moved.

Faulty or defective equipment will be reported to the supervisor and, until repaired, will be tagged out-of-service with a Danger – Don't Use It – Unsafe Tag or equal.

Arc-welding operations will be shielded behind noncombustible or flameproof screens to protect employees and other persons working in the vicinity from the direct ray of the arc.

Some arc welding (such as tungsten inert gas, or metal inert gas) and arc cutting (such as arc air or thermocutters) can produce excessive concentrations of fumes and gases.
Contact RRP Safety to ensure that adequate controls are in place based on the conditions, type of material, or rod composition.

8.23 Compressed Air Equipment

Only certified pressure vessels are permitted.

Certificates of inspection for air receivers must be provided before arriving on the project/site.

Bleed-/pressure-relief valves, as well as air diffusers, must be fitted to air-powered equipment. Air lines must be protected from being driven over by machinery and kept away from walkways and supported by cable stands where practicable.

Employees required to use pressurized equipment must be trained in the use of such equipment and fully conversant with the hazards associated with pressurized equipment.

All connections on pressurized/compressed air hoses or lines must have a positive means of coupling to prevent the connection from uncoupling.

All hoses will have a containment device fitted to prevent whipping should it become detached.

8.23.1 Whip Check

If inadequately restrained or "whip-checked," the resulting whipping effect may, and has previously, caused equipment damage and significant injury to, and death. Consequently, all pressurized equipment must be restrained, or whip-checked through the use or combined use of the following:

- Single leg cable stocking
- Sling (such as 1 or 2 leg slings)
- Internal reinforcement
- Double or 2-leg cable stocking, or
- Proprietary fittings or fixtures

Particular attention must be given to the securing and whip checking of:

- Hydraulic lines and pressure units
- High-pressure water lines, pumps, and vessels
- Air compressors and lines
- Associated tools and accessories

8.23.2 Inspections

Pressure vessels must be inspected/certified according to the manufacturer's recommendations, and applicable codes/standards (such as ASTM, ASME, and in-country).

Air compressors and similar equipment will be inspected daily when in use with results documented on an *inspection Report.*

8.23.3 Cleaning

Compressed air must not be used for cleaning purposes unless the pressure is reduced to less than 30 psi — and then only with effective chip guarding and adequate personal protective equipment.

8.24 Gas Cylinders

Portable cylinders used to store and ship compressed gas will be constructed and maintained in accordance with U.S. Department of Transportation (DOT) regulations, Title 49 Code of Federal Regulations, Parts 171-179, or applicable in-country standards.

Devices used on compressed gas cylinders must comply with applicable Compressed Gas Association (CGA) Standards.

8.24.1 Transporting and Moving Cylinders

When compressed gas cylinders are hoisted, they must be secured on a cradle, cylinder truck/dolly, slingboard, or pallet; cylinders must not be hoisted using slings choked around the body nor with unapproved devices or attachments.

When cylinders are moved with powered vehicles, they will be secured in a vertical position, regulators will be removed, and valve protection caps put in place.

When cylinders are manually handled, unless cylinders are firmly secured on a cylinder truck, regulators will be removed and valve protection caps put in place before cylinders are moved in any fashion or by any means.

Whenever cylinders are moved, the valve will be in a closed position.

Regulators must be removed and, when provided for, valve-protection caps put back in place before moving cylinders.

Proper support racks will be provided in vehicles used to transport cylinders.

The driver/operator will ensure cylinders filled for transportation (bulk loads) comply with DOT regulations or applicable in-country standards, on the following subjects:

- Ownership and authorization to fill
- Type of shipping cylinders for each gas
- Charging cylinders – amount of gas and conditions of filling
- Marking and labeling
- Placarding transport vehicles
- Type(s) of pressure relief devices, where required

Compressed gas cylinders must not be transported in automobiles or in closed-bodied vehicles.

Shipping compartments will be adequately ventilated.

8.24.2 Placing Cylinders

Cylinders will be secured in an upright position, even when being hoisted or moved.

Cylinders will be placed where they cannot become part of an electrical circuit and will be kept away from piping systems and layout tables that may be used for grounding electrical circuits.

When cylinders are in use, they will be placed with the valve end up, and a steadying device used to keep them from being knocked over. Cylinders will not be placed where they will be exposed to open flames, hot metal, or other sources of heat.

NOTE: This requirement does not apply to cylinders as follows (as prescribed in CGA and National Fire Protection Association (NFPA) standards:

- Cylinders designed to remain stable without being secured (for example, LPG cylinders commonly used with gas grills and weed burners)
- Cylinders with a maximum water capacity $\leq$ 2.7 pounds
- *Compressed gas and oxygen cylinders must not be placed in confined/enclosed or non-ventilated areas.*

8.24.3 Storing Cylinders

Compressed gas cylinders must be stored in areas that are safe, dry, well-ventilated, and protected from direct sun and weather conditions; do not expose cylinders to temperatures above 125 °F (51 °C).

Compressed gas cylinder storage areas will be clearly identified and posted with the name(s) of the gas(es) stored in the area.

The quantity of gas in cylinders allowed in storage (inside or outside) will be in accordance with NFPA Standards 51 and 55.

Cylinders will not be stored near elevators, gangways, stairwells, or any other place where they are likely to be knocked down or interfere with traffic.

Empty cylinders will be segregated from other cylinders and labeled or tagged "Empty" or "MT."

Oxygen cylinders not in use must not be stored within 20 feet of cylinders containing flammable gases unless separated by a fire wall at least 5 feet tall and having a fire-resistance rating of at least 1/2 hour.

Cylinders containing oxidizing gases must be stored away from flammable substances such as oil and volatile liquids.

Smoking is prohibited within 20 feet of flammable gas cylinder storage areas. NO SMOKING signs must be posted in storage areas containing flammable gases.

Valves on empty cylinders will be closed and capped.

Storage areas will be constructed so that they are dry, well-ventilated, and made with noncombustible materials; ensure shelves are able to support cylinders.

Dry vegetation and combustible materials must be cleared for a minimum distance of 15 feet from around the storage area.

Physical protection (barriers) will be provided to prevent damage from vehicles.

8.24.4 Using Cylinders

Gas welding and cutting equipment must be inspected by the user at the beginning of each shift to identify any of the following defects:

- Leaking or damaged hose or hose couplings
- Leaking or damaged fuel-gas pressure regulators and gauges and related connections
- Leaking or damaged torch heads or shutoff valves and related connections
- Clogged tip openings

Before connecting a regulator to the valve, the valve will be opened slowly to clear debris from the valve nozzle and closed immediately. This action will be taken in an area where there are no possible sources of ignition, and the employee will stand to one side when taking this action.

Safety devices will not be tampered with.

Cylinders must be clearly identified as to their contents in accordance with local hazardous

substance legislation.

Do not strike an arc on a cylinder.

Hoses from compressed gas cylinders must be removed from confined spaces when not in use and during breaks.

Flashback devices must be installed at both the regulator and torch end, on both lines, of oxygen/fuel gas systems.

Regulators and hoses used with flammable compressed gas cylinders will be leak tested immediately after they are connected to the cylinders.

Cylinders must be kept far enough away from the actual welding/cutting operation to prevent sparks, hot slag, and flames from reaching them.

Acetylene cylinder valves will be opened 3/4 of a turn or less; do not open acetylene cylinder valves more than 1-1/2 turns.

Acetylene regulators will be adjusted so the low-pressure gauge indicates a delivery pressure of less than 100 kPa (15psig) to the hose and torch.

Cylinders will be considered full and must be handled accordingly.

Approved reducers and regulators must be used; do not use gas directly from cylinders without pressure being reduced through specifically approved regulators; do not tamper with safety devices on regulators or on cylinder valves.

Cylinders will be protected from damage; do not drag, drop, or strike; do not use cylinders with signs of damage.

Cylinders will not be used as rollers or supports, or for any purpose other than to store and dispense the original contents.

Oxygen cylinders and fittings must be kept away from oil, grease, and other combustible/flammable materials; keep cylinders, cylinder caps and valves, couplings, regulators, hoses, and apparatus free from oil and greasy substances, and do not handle with oily hands or gloves; do not direct oxygen at oily surfaces or greasy clothes.

Gaseous hydrogen systems will be equipped with pressure-relief devices and protected from tampering. Relief devices will be arranged so that if actuated, they have an unobstructed upward vent path to open air.
Users will verify that compressed gas cylinders indicate the following:

- Date the last hydrostatic test was performed (stamp).
- Cylinder contents (label with either chemical or trade name).

Cylinder tags or markings will not be removed or altered.

Mixing gases, transferring them from one cylinder to another, or refilling cylinders is prohibited.

Valve protective caps will be kept on the cylinder except when the cylinder is secured and connected to dispensing equipment.

Cylinder valves must be opened slowly.

Users will ensure reverse-flow gas check valves and flashback arrestors are installed on both lines of all oxygen and fuel-gas setups.

Special wrenches, when required, will be left in position on the stem of the valve while the cylinder is in use; in the case of coupled cylinders or cylinders connected with a manifold, at least one such wrench must be available for immediate use.

When the work is complete, or at the end of the shift, valves and regulators will be closed; gas lines and regulators must be drained; and the adjusting screw "backed out."

NOTE: This does not apply to cylinders connected with a manifold.

Regulators and pressure gauges will be used only for the gases that they are designed and intended for. Repair, modification, or alteration on cylinders, valves, or attachments will be performed only by the manufacturer/authorized service center.

Difficult connections must not be forced; threads on regulators must match to those on the cylinder valve outlet.

Cylinders will not be dragged, dropped, rolled, or struck in horizontal position, or allowed to strike each other or another surface violently.

When transporting cylinders, a suitable hand truck, forklift, or similar handling device will be used with the cylinder properly secured to the device and the valve cap on.

Cylinders may be rolled only for short distances, using the curved bottom edge of the cylinder. Cylinders will not be lifted using the protective cap or with a magnet.

When disconnecting regulators and hose, the valve must be closed and the hoses purged before removing the regulators, and storing.

Torches and hoses will be completely depressurized (bled) before storage, or at the end of each shift.

Torch, hose, and regulators must be completely contained within any box for storage. Storage of torches or hose with one end out of the box is strictly prohibited, regardless of the regulators being connected to a compressed gas cylinder.

8.24.5 Refilling Gas Cylinders

Compressed gas cylinders may only be refilled by the owner or authorized employees in compliance with applicable standards.

8.25 Aerial Lifts, Elevating Work Platforms and Material / Personnel Hoists

No modifications or additions that affect the capacity or safe operation of the equipment will be made without the manufacturer's written approval. If such modifications or changes are made, the capacity, operation, and maintenance instruction plates, tags, or decals will be changed accordingly.

Designation of Competent and Qualified Persons must be documented in accordance with this Plan.

8.25.1 Inspections

Aerial lifts and elevating work platforms (hereafter called lifts) and material/personnel hoists (hereafter called hoists) received for use through purchase, contract obligations, or rental must receive an initial inspection by a Competent Person before placing into operation to verify that there are no mechanical defects or safety deficiencies; results are documented on *Form F0165, Pre-Mobilization Inspection Report — Construction Equipment and Light Vehicles*.

If the lift/hoist warrants service or repair, it will be rejected (before unloading) and returned to the lessor or owner. The lessor/owner will be notified before such action and, if possible, be allowed to make necessary repairs at his/her own expense.
Management/supervision and RRP Safety will be part of this decision-making process. A photocopy of the inspection report, noting deficiencies will be transmitted to the lessor/owner.
When a lift/hoist becomes damaged or in need of repair, a documented inspection must be completed before the equipment is returned for use.

Before use on each shift, the operator should complete an inspection of the lift to verify that the unit is in a safe and operable condition; this inspection is documented on the applicable Inspection Report.

Any detected Deficiencies will be fully explained in the "Comments" section of the inspection report. Any corrective actions taken at the time of the inspection should also be noted on the form before the lifts may be used in the field.

If a deficiency has the potential for causing bodily injury to the operator/driver or ground employees, the equipment/vehicle must be tagged and effectively taken out of service. The supervisor must be notified when any applicable piece of equipment/vehicle is tagged out of service.

8.25.2 Training and Licensing

Employees who will operate lifts must be trained to the requirements of this practice and specific manufacturer's operating instructions by a Competent Person.

NOTE: Training requirements can be met by a project-specific training course, manufacturer's training classes, or other recognized training that covers the content of this practice.

8.25.3 Operation - Aerial Lifts And Elevating Work Platforms

Lifts purchased, leased, rented, or otherwise used on the project/site must meet the criteria in the most recent American National Standards Institute (ANSI) standards in the ANSI A92 series or equivalent in-country standard(s).

Lifts will be maintained and repaired in accordance with the manufacturer's requirements.

Insulated portions of lifts must not be altered or damaged by use that reduces the insulation capability of the unit.

Operations - Lifts will be operated in accordance with the requirements contained in this practice, training classes, and the manufacturer's operating instructions.

Operate lifts on level surfaces or within the slope limits given by the manufacturer. Use wheel chocks when working on inclines as recommended by the manufacturer.

Set brakes and fully extend outriggers (if equipped and wherever space permits), position on stable surfaces, or use pads/appropriate cribbing arranged in a stable configuration.

NOTE: If the outriggers cannot be fully extended, operate within limitations specified in the manufacturer's operating manual.

Ensure the area surrounding the lift is clear of personnel and equipment before lowering the platform, or position awareness barriers around the lifts.

Provide safety barricades around man lifts operated in restricted areas, in accordance with this Plan so that personnel cannot be caught between rotating equipment and adjacent fixed objects.

Stand on the floor of the lift and do not sit or climb on the edge or handrail. Do not climb out of the lift or use planks, ladders, or other devices, to reach the work location.

In aerial lifts (JLGs, snorkel lifts, boom trucks), wear a full body harness and lanyard and attach it to an approved anchorage on the boom or basket. For scissor lifts, fall protection is required when the manufacturer has constructed a 5,000-pound fall protection anchorage point and has specified in the operating manual that fall protection is required.

Do not tie off to an adjacent pole, structure, or equipment while in a lift.

Only tools and materials required for the task are permitted to be raised in a lift. Do not

exceed the load capacity of the lift.

Do not move lifts when the platform is occupied unless the equipment is specifically designed for this type of operation.

NOTE: For aerial lifts, the boom is completely retracted and resting in the transport cradle. Employees may stay in the bucket/platform for simple relocation movements.

Lifts that can be moved in elevated positions must have interlocks that keep the unit from moving or controlling the speed to a rate that does not affect stability when the platform is raised.

Booms and outriggers must be secured in accordance with the manufacturer's instructions before over-the-road transport.

Working Near Overhead Power Lines - Refer to the "Working Near Overhead Power Lines" section of this Plan.

8.26 Working near Overhead Power Lines

All lines must be considered energized unless the authority or utility company owning the lines indicates in writing that they are not energized and that the lines are grounded at the point of operation.

Before work is begun, a Safety Task Assignment (STA) must be completed identifying and communicating to each employee the task steps to be completed, the hazards and risks associated with the task, and the safe work practices that are to be applied to complete the task safely.

If there is any risk of contact, the electrical supply will be turned off and isolated, moved or otherwise made safe.

8.26.1 Working Distances

No equipment will be erected or operated under any circumstances when any part of the equipment or (in the case of a crane) load is closer than **20 feet** of energized electrical distribution lines rated 50 kV or below, unless:

- The lines have been de-energized and are grounded at the point of work, or
- Insulating barriers, that are not part of the equipment, have been erected.

For lines rated over 50 kV, the minimum clearance between lines and any part of the equipment or load will be at least 20 feet or further as specified in the table below.

Figure 8-4 Overhead Power Lines Minimum Clearance Distances

OVERHEAD POWER LINES Minimum Clearance Distances	
Voltage (nominal, kV, alternating current)	Minimum clearance distance (feet)
up to 50	20
over 50 to 200	20
over 200 to 350	20
over 350 to 500	25
over 500 to 750	35
over 750 to 1000	45
over 1000	(as established by the power line owner/operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution)

8.27 Scaffolds

8.27.1 Design

Qualified Persons will plan, design, or modify scaffold systems. Special job needs (configuration, location of access, material handling) will be communicated to the Qualified Person preparing design specifications for a scaffold system.

A registered professional engineer, designated as a Qualified Person, will design tube and coupler and tubular-welded frame scaffolds over 125 feet in height, pole scaffolds over 60 feet in height, and all outrigger beam scaffolds and their components.

8.27.2 Competent Person

Competent Persons are designated to:

- Direct scaffold selection and erection/dismantling
- Inspect Scaffolds
- Train scaffold erectors, inspectors, and maintenance/repair persons
- Resolve issues

Designation of Competent and Qualified Persons must be documented in accordance with this Plan.

8.27.3 Inclement Weather

The Project/Site Manager will determine if it is safe to work on or from scaffolds during storms or high winds. If authorization is given to perform such work, additional safety precautions must be used, including a personal fall arrest system (PFAS) or previously installed windscreens.

8.27.4 Scaffold Erection

Scaffolds will be constructed, modified, and altered only with knowledge of the maximum intended load and in accordance with the design criteria and the manufacturer's recommendations. An appropriate Scaffold Erection Checklist should be referred to during and after scaffold erection.

Scaffolds will be constructed so that the structure and its components are capable of supporting, without failure, their own weight and at least 4 times the maximum intended load.

Example: 4 employees @ 300 lb each = 1,200 lb + 100 lb of tools = 1,300 lb x 4 = 5,200 lb maximum intended load.

Scaffold components and materials must be inspected before use, ensuring that wood scaffold planks (when used) are scaffold-grade lumber or the equivalent, as recognized by approved grading rules for the species of wood used.

The following table may be used as information for minimum and maximum permissible spans for 2 inches by 10 inches or wider wood planks:

Figure 8-5 Minimum and Maximum Permissable Spans

MINIMUM and MAXIMUM PERMISSABLE SPANS 2 x 10 Wood Planks					
	Full Thickness Undressed Lumber			Nominal Thickness Lumber[1]	
Working load (lbs sq ft) **Permissible span** (feet)	25 10	50 8	75 6	25 8	50 6
[1]Nominal thickness lumber not recommended for heavy-duty use.					

NOTE: Fabricated planks and platforms may be used in lieu of solid sawn wood planks. Maximum spans for such units are according to manufacturer's recommendations for the intended use/load.

The clearance between scaffolds and power lines will be at least 20 feet and in accordance with this Plan, Working Near Overhead Power Lines.

When scaffold platforms are more than 2 feet above or below a point of access, portable ladders, hook-on ladders, attachable ladders, stair towers, ramps, walkways, integral prefabricated scaffold access, or direct access from another scaffold, structure, personnel hoist, or similar surface must be used.

Gates, or other methods approved by the manufacturer or Competent Person, will be used to provide a safe transition from the access point to the scaffold platform and to maintain the integrity of the scaffold's guardrail system.

The scaffold must be plumb and level; supported scaffold poles, legs, posts, frames, and uprights will bear on base plates and mud sills or base plates and other adequate foundation such as concrete slab flooring.

Where leveling of a scaffold is necessary, screw jacks or other equivalent stable means will be used.

When erecting or dismantling scaffolds, safety harnesses and lanyards must be used at the 6-foot (1.8-meter) working level whenever feasible, if performing work at a stationary location for a period of time, and where components will be used for tie-off are deemed strong and stable enough to allow their use.

Scaffold components manufactured by different manufacturers or composed of dissimilar materials will not be inter-mixed or modified without approval from the Competent Person.

Scaffolds must be placed as close to the work as possible. If fall protection is provided by the structure on which the work is being performed (such as a building or wall), no more than 14 inches will be allowed between the scaffold platform and the structure.

Each platform on all working levels of scaffolds will be fully planked or decked between the front uprights and the guardrail supports.

Each platform unit will be installed so that the space between adjacent units and the space between the platform and the uprights is no more than 1 inch wide except where it can be demonstrated that a wider space is necessary.

Each platform must be secured. The platform ends must be extended 6 inches to 12 inches past the centerline of their supports unless restrained by hooks, cleats, or other means.

Each scaffold walkway must be at least 18 inches wide.

At all points of a scaffold where the platform changes direction, any platform that rests on a bearer at an angle other than a right angle will be laid first, and platforms that rest at right angles over the same bearer will be laid second.

Where a scaffold's height exceeds 4 times its smallest base dimension, guy, tie, or otherwise brace the scaffold at the closest horizontal member to the 4:1 height. Repeat every 26 feet vertically (20 feet for those scaffolds less than or equal to 3 feet in width) and 30 feet horizontally.

Protection will be installed (such as toe boards, netting, or fencing) where employees located on or below a scaffold are exposed to the possibility of objects falling from overhead.

Access:

- Portable, hook-on, and attachable ladders are positioned so as not to tip the scaffold.
- Hook-on and attachable ladders are positioned so that their bottom rung is not more than 24 inches above the scaffold supporting level.

- When hook-on and attachable ladders are used on a supported scaffold more than 35 feet high, they have rest platforms at 35 feet maximum vertical intervals.
- Hook-on and attachable ladders are specifically designed for use with the type of scaffold used.
- Hook-on and attachable ladders have a minimum rung length of 11-1/2 inches.
- Hook-on and attachable ladders have uniformly spaced rungs with a maximum spacing between rungs of 16-3/4 inches.

Stairway-type ladders:

- Are positioned such that their bottom step is not more than 24 inches above the scaffold supporting level.
- Are provided with rest platforms at 12-foot maximum vertical intervals.
- Have a minimum step width of 16 inches except that mobile scaffolds stairway-type ladders have a minimum step width of 11-1/2 inches.
- Have slip-resistant treads on steps and landings.
- Stair towers are positioned such that their bottom step is not more than 24 inches above the scaffold supporting level.
- A stair rail consisting of a toprail and a midrail is provided on each side of each scaffold stairway.
- The toprail of each stair-rail system is capable of serving as a handrail, unless a separate handrail is provided.
- Handrails and toprails that serve as handrails will provide an adequate handhold for employees grasping them to avoid falling.
- Stair-rail systems and handrails will be surfaced to prevent injury to employees from punctures or lacerations and to prevent snagging of clothing.
- The ends of stair-rail systems and handrails are constructed so that they do not constitute a projection hazard.
- Handrails and top rails that are used as handrails are at least 3 inches from other objects.
- Stair rails will not be less than 28 inches nor more than 37 inches from the upper surface of the stair rail to the surface of the tread, in line with the face of the riser at the forward edge of the tread.
- A landing platform at least 18 inches wide by at least 18 inches long is provided at each level.
- Each scaffold stairway is at least 18 inches between stair rails.
- Treads and landing have slip-resistant surfaces.
- Stairways are installed between 40 degrees and 60 degrees from horizontal.
- Guardrails meeting requirements are provided on the open sides and ends of each landing.
- Riser heights are uniform, within 1/4 inch for each flight of stairs.
- Tread depth is uniform, within 1/4 inch for each flight of stairs.

Ramps and walkways 6 feet or more above lower levels must have guardrail systems.

- No ramp or walkway is inclined more than a slope of 3 horizontal to 1 vertical (3:1) (20 degrees above horizontal).
- If the slope of a ramp or a walkway is steeper than 8 horizontal to 1 vertical (8:1), the ramp or walkway will have cleats not more than 14 inches apart that are securely fastened to the planks to provide footing.

Steps and rungs of ladder and stairway-type access will line up vertically with each other between rest platforms.

Direct access to or from another surface will be used only when the scaffold is not more than 1 inch horizontally and not more than 24 inches vertically from the other surface.

Access for employees erecting and dismantling supported scaffolds must be in accordance with the following:

- Provide a safe means of access for each employee erecting or dismantling a scaffold where the provision of safe access is feasible and does not create a greater hazard. Have a Competent Person determine whether it is feasible or would pose a greater hazard to provide, and have employees use a safe means of access. This determination will be based on project/site conditions and the type of scaffold being erected or dismantled.
- Hook-on or attachable ladders are installed as soon as scaffold erection has progressed to a point that permits safe installation and use.
- When erecting or dismantling tubular welded frame scaffolds, end frames with horizontal members that are parallel, level, and not more than 22 inches apart vertically, may be used as climbing devices, provided they are erected in a manner that creates a usable ladder and provides good handhold and foot space.

Scaffold areas will be marked or posted with warning flags or barriers where vehicular traffic is present.

A completed scaffold status tag will be attached near the access point of any scaffold being used, erected, or dismantled, as follows:

- **Red Tag** – KEEP OFF/DO NOT USE – prohibits use of the scaffold, as the unit is undergoing some stage of erection, alteration, or dismantling.
- **Yellow Tag** – SPECIAL CONDITIONS/ADDITIONAL CONTROLS – indicates special safety measures for use of the scaffold; examples include PFAS or head protection.
- **Green Tag** – SCAFFOLD IS ERECTED TO CODE/APPROVED FOR USE – indicates that the scaffold is complete, meets erection requirements, and is safe to use for its intended purpose.

NOTE: See graphic showing example tags below

Alterations or modifications, which must be made to a Green-tagged scaffold, must be re-inspected and re-tagged by the Competent Person who is responsible for the modification. A new tag must be placed on the scaffold or platform.

The scaffold must be dismantled shortly after being notified that the work requiring the scaffold is complete.

These example tags are displayed for information only.
Obtain usable tags from RRP Safety

8.27.5 Falling Object Protections

In addition to wearing hard hats, each employee on a scaffold will be provided with additional protection from falling hand tools, debris, and other small objects through the installation of toe boards, screens, or guardrail systems, or through the erection of debris nets, catch platforms, or canopy structures that contain or deflect the falling objects.

Where there is danger of tools, material, or equipment falling from a scaffold and striking employees below, the following provisions apply:

- The area below the scaffold where objects can fall will be barricaded, and employees will not be permitted to enter the hazard area.
- A toe board will be erected along the edge of the platforms more than 6 feet above lower levels for a distance sufficient to protect employees below.
- Where tools, materials, or equipment are piled to a height higher than the top edge of the toe board, paneling, or screening extending from the toe board or platform to the top of the guardrail will be erected for a distance sufficient to protect employees

below.

- A guardrail system with openings small enough to prevent passage of potential falling objects will be erected over the employees below.

Where used, toe boards will be:

- Capable of withstanding, without failure, a force of at least 50 pounds (22.7 kilograms) applied in any downward or horizontal direction at any point along the toe board.
- At least 3-1/2 inches high from the top edge of the toe board to the level of the walking/working surface. Toe boards will be securely fastened in place at the outermost edge of the platform and have no more than 1/4-inch clearance above the walking/working surface. Toe boards will be solid or with openings not over 1 inch in the greatest dimension.

8.27.6 Scaffold Inspection

The Competent Person will inspect scaffolds (and their components, including gin wheels/safety pulleys) to be used before the start of each work shift, and after any event that could affect the structural integrity of the equipment. Results of inspections must be documented on Scaffold Inspection Tag; the tag will remain affixed to the scaffold.

8.27.7 Scaffold Use

Users will conduct the following activities.

Scaffolds must be used only for their intended purpose.

Ladders, unstable objects, or makeshift devices will not be used to increase the working height of scaffolds.

Exception: *Ladders may be used on large area scaffolds when certain criteria are met and only with written approval from the Competent Person.*

Employees should not straddle, stand on, or work outside guardrails.

Mobile scaffolds will be used on firm, level surfaces. Lock the casters or wheels before using. To move, apply force as close to the base as practical, but not more than 5 feet above the supporting surface.

Employees will not “ride” on a scaffold while it is being moved; remove or secure tools/materials on the platform.

Only approved access means will be used to ascend and descend scaffolds (stairs, attached ladder, or specially designed end frame); do not use crossbracing or siderails.

NOTE: Scaffold framing may be used for access only if its horizontal members have been specifically designed and constructed for such use.
Only tools and materials necessary to perform the task will be kept on the scaffold platform.

Slipping or tripping hazards will be controlled by removing or securing the tools/materials.

Scaffolds and scaffold components will not be loaded in excess of their maximum intended loads or rated capacities, whichever is less.

Fall arrest (PFAS) must be used wherever feasible when working 6 feet or more above a lower level; this requirement is ***in addition to*** the requirement for guardrails.

Work can be conducted only from scaffolds having a completed yellow or green scaffold status tag and a current scaffold inspection tag affixed. Special conditions/additional controls noted on the tag(s) must be complied with.

A scaffold system/component or scaffold status tag must not be modified or removed. Notify supervision immediately if a scaffold is damaged, weakened, or otherwise deficient.

Employees will not position themselves or use tools/equipment where there is a possibility of contact with energized overhead electrical lines. When scheduled to work within 20 feet of the centerline of the nearest conductor, contact the electric utilities organization having jurisdiction 48 hours in advance. They will specify requirements and clearance distances for the work activity.

Debris must not be allowed to accumulate on platforms.

Makeshift work platforms such as, but not limited to, boxes and barrels, will not be used on top of scaffold platforms to increase the work height level of employees.

Ladders must not be used on scaffolds to increase the working level height of employees, except on large area scaffolds where employees have satisfied the following criteria:

- When the ladder is placed against a structure that is not part of the scaffold, the scaffold is secured against the sideways thrust exerted by the ladder.
- The platform units are secured to the scaffold to prevent their movement.
- The ladder legs are be on the same platform, or other means will be provided to stabilize the ladder against unequal platform deflection.
- The ladder legs are secured to prevent them from slipping or being pushed off the platform.

The platform will not deflect more than 1/60 of the span when loaded.

Any part of a scaffold damaged or weakened so that its strength is less than that required by this practice must be immediately repaired or replaced, braced to meet those provisions, or removed from service until repaired.

Figure 8-6 Scaffold Checklists - User

8.27.7.1 SCAFFOLD CHECKLIST – USER

- ☐ Use scaffolds only for their intended purpose.
- ☐ Work from tagged scaffolds only. Comply with special conditions or the additional controls noted on the access tag. Do not modify or remove a scaffold system, component, or status tag. Notify supervision immediately if a scaffold is damaged, weakened, or otherwise deficient.
- ☐ Ensure the scaffold is inspected:
  - Before it is used
  - On each work shift
- ☐ Do not use unstable objects or makeshift devices to increase the working height of the scaffolds. Use portable ladders to increase the working height only after a Competent Person has determined that the stability of the structure has not been compromised and adequate fall protection is in place.
- ☐ Do not straddle, stand on, or work outside the guardrail.
- ☐ Use mobile scaffolds only on firm, level surfaces. Lock the casters or wheels before using mobile scaffolds.
- ☐ Do not "ride" on scaffold while it is being moved.
- ☐ Remove or secure tools or materials before moving or relocating a scaffold.
- ☐ Use designated access means to descend or ascend a scaffold (stairs, attached ladder, or specially designed end frames). Do not climb cross bracing or side rails for access.
- ☐ Keep only the tools and materials necessary to perform the task on the platform. Control slipping and tripping hazards by removing or securing tools or materials.
- ☐ Use fall protection systems (guardrail systems or personal fall arrest systems) when working 6 feet or more above a lower level.
- ☐ Do not position yourself, or use tools or equipment where there is a possibility of contacting an energized overhead line. Contact the electrical utilities organization having jurisdiction for additional requirements if any portion of your body, the tools, or the materials may come within 20 feet of the energized line.

8.27.8 Training

A Competent Person will provide training on erection, maintenance, inspection, use, and dismantling of scaffolds as outlined below. Training must be documented.

Erectors - Scaffold erectors and maintenance/repair persons will be trained specifically in the following areas, as applicable:

- Nature of potential scaffold hazards (such as falls, falling objects)
- Procedure for erecting, maintaining, inspecting, and dismantling scaffolds; associated fall hazards, and falling object protection systems
- Design criteria and load-carrying capacities
- Other pertinent requirements

Users - Scaffold users will be trained in hazard recognition and control measures associated with the type of scaffold being used, including the following:

- The nature of electrical, fall, and falling object hazards and the correct procedures for dealing with these hazards
- Proper use of scaffold and material handling on scaffolds
- Pre-use inspection criteria
- Use of fall protection and fall protection systems (erecting, maintaining, and disassembling)
- Maximum intended load and load-carrying capacities
- Other pertinent requirements

Employees, who erect, dismantle, or use scaffolds will be retrained when necessary to ensure their proficiency or provide updated information on hazards or changes.

Inspectors - Scaffold inspectors will be trained in the following areas, as applicable:

- Nature of potential scaffold hazards (such as falls, falling objects)
- Procedure for erecting, maintaining, inspecting, and dismantling scaffolds; associated fall hazards; and falling object protection systems
- Design criteria and load-carrying capacities
- Other pertinent requirements

8.27.9 Additional Types of Scaffolds

Other Types of Scaffolds – Other types of scaffolds that may be used on the project/site will be planned, evaluated and erected as part of the Safety JHA process and Construction Work Planning Procedures. Types of scaffolds that may be able to be used pending review are:

- Pole scaffolds
- Tube and coupler scaffolds
- Fabricated frame scaffolds
- Plasterers', decorators', and large area scaffolds

- Bricklayers' square scaffolds
- Form scaffolds and carpenters' bracket scaffolds
- Outrigger scaffolds
- Pump jack scaffolds
- Ladder jack scaffolds
- Crawling boards (chicken ladders)
- Step, platform, and trestle ladder scaffolds
- Catenary scaffolds
- Float (ship) scaffolds
- Mobile scaffolds
- Multi-point adjustable suspension scaffolds, stone setters' multi-point adjustable suspension scaffolds, and masons' multi-point adjustable suspension scaffold

OSHA/State-Plan requirements documents must be reviewed before scaffold erection, and erections plans must be made specific to each set of requirements for each type of scaffold.

8.28 Gin Wheels/Safety Pulleys

The following are typical instructions/requirements — but always install and operate according to the manufacturer's recommendations.

8.28.1 General

- Use this type of equipment only on structures that are able to bear its weight and its load.
- Only use a gin wheel and rope if you have been properly trained to do so.
- Only persons trained in scaffold erection will install/erect a gin wheel/safety pulley.
- A gin wheel/safety pulley must be inspected daily/each shift before use. If the wheel/pulley is part of a scaffold, the inspection must be performed by a Competent Person.
- Never leave the equipment loaded or unattended.
- Make sure the landing area is unobstructed and able to accept the load in size and weight.
- Never exceed the equipment's safe working load.
- Check the condition of the equipment before use. If it shows signs of damage or excessive wear, tag it out using a Danger – Don't Use It – Unsafe Tag.
- The wheel must:
  - Have an identification number.
  - Have safe working load (SWL) (for example, 110 pounds [50 kilograms]) marked on the wheel.
  - Run freely and true, with no visible signs of corrosion, excessive wear, deformity, or contamination from oil, paints, concrete, etc.
  - Have edges that are free from any sharp edges that could damage the rope.

- Not be crimped, which will prevent the rope from running smoothly.
- Have 2 split pins in place, unbroken, and not corroded (bent over nails is not an acceptable alternative).
- Have a center pin that does not show any signs of excessive wear.

- The supporting ring/hook must not be cracked, damaged, or deformed.

The rope must:

- Have a means of identification (ID tag with SWL).
- Be in sound condition and not cut, frayed, worn, or damaged.
- Not be kinked or contaminated by oil, paints, etc.
- Be firm and consistent along the rope length.
- Have ends that are properly spliced.
- Keep the equipment clean.
- Never push the equipment beyond its design limits. If it will not do what you want with reasonable ease and speed, assume you have the wrong tool for the job.
- When not in use, store the equipment somewhere clean, dry, and safe.

8.28.2 Setting Up

- Double check that the equipment has a sufficient SWL for the item being lifted.
- Make sure that you only use a suitable size diameter rope which is also long enough for the required drop.
- Check and confirm that the suspension/anchorage point is tested and certified to the equivalent (or preferably greater) SWL of the wheel/pulley — allow a 10 percent safety margin to accommodate dynamic forces that may arise during the course of a lift.
- Carefully select a safe area where coworkers and members of the public are not a risk and barrier off a working zone on the ground/floor below the wheel.
- Fix a gin wheel horizontal supporting tube with double couplers to 2 standards.
- Use a sleeve coupler where a joint occurs on the inside standard between the supporting tube and the working platform.
- Suspend a gin wheel from its supporting tube no more than 2 feet from the scaffold.
- Ensure a load-bearing fitting is used on each side of the gin wheel on the horizontal support tube.
- Remove any obstructions (such as transoms) from the rope's route of travel.
- If using a gin wheel:
    - Use either a suitable shackle or slide the loop on the wheel's bracket over a scaffold pole and retain in place using a scaffold clip on either side.
    - Once secured, feed the rope over the wheel and continue until the rope reaches the ground or the areas where the load is to be lifted from or lowered to.

8.28.3 Using the Rope and Wheel

- Ensure that the load is balanced, stable, and that personnel stand clear of the raised load.
- Make sure that anyone in the immediate work area is warned of what you are doing.
- Do not shock-load this equipment.
- Determine the load's weight and center of gravity as accurately as possible.
- Never stand directly under the load; keep others clear and concentrate at all times.
- In addition to standard PPE, gloves appropriate for this work must be worn.
- When lowering materials over the side, the top man must ensure that the person below is holding the rope securely and is ready to receive the load.
- If the item to be raised has a dedicated lifting eye, ensure that it is in good condition before you attach the hook.
- If the item has no lifting eye, suitable slings/chains must be used.
- Make sure the load is properly secured; use the rolling hitch knot for tubes and the timber hitch knot for boards.
- Before lifting, ensure the load is free and not restrained by fixings, etc.
- Lift the load a nominal distance to check balance and security of the load.
- Use tag lines to control long or bulky loads.
- Assess the weight and shape of the system components before deciding on the number of items to be attached at any one time.
- When raising/lowering more than 1 tube or board, use and additional half-hitch knot to improve the grip on the load. The maximum amount of material to be lifted or lowered:
    - 1-1/2 inches thick boards of any length
    - 1 galvanized tube up to 21 feet o
    - 2 galvanized tubes up to 10 feet o
    - 3 galvanized tubes up to 8 feet
- Only lifting bags or baskets of sufficient size, strength, etc., are to be used for raising fittings.
- Once raised, lower as soon as possible. Do not leave the load suspended or unattended for any reason.
- Gently lower the load and then remove it from the rope.
- Remove the rope from the wheel/pulley and remove from its mounting position.

8.28.4 Safety Pulley

The following are typical instructions/requirements — but always install and operate according to the manufacturer's recommendations:

- An auto-braking unit is supplied with its own mounting tube that should be attached to the scaffold using standard scaffold clips.
- Before attaching the tube, ensure that the end fitted with a stop collar and spring pin are outermost.
- Feed the rope through the unit — start by feeding the rope between the rear spacer and roller.

- Next feed the rope between the main roller and the brake; if you find that the brake gets in the way, press down on the brake rocker to hold it clear.
- Finally, feed the rope so that it is between the main roller and counterweight.
- Raise the unit and slide its rotating sleeve onto the mounting tube, ensuring it is pushed beyond the spring pin.
- You can now pull enough rope through the pulley to allow the rope to reach the ground or the area where the load is to be lifted from or lowered to.
- The safety pulley has a braking system that will grip the rope if you lose control. It will only work if the counterweight is set correctly and the SWL is not exceeded.
- The last adjustment to make is to the balancing counterweight. This should be set in position according to the length of drop of the load side of the rope.
- To adjust its position, insert the pin spanner into the end of the counterweight.
- Loosen the counterweight by about 8 turns (counterclockwise) move the counterweight to the required position and relock.

8.29 Parking

RRP personnel, project visitors and subcontractor personnel shall only park in authorized designated areas as specified in the Security Action Plan or as designated by the Construction Work Plan. Parking on the jobsite is prohibited and unauthorized vehicles may be subject to towing at the vehicle owners expense. Furthermore, any damage to any vehicle(s) parked on the jobsite will be the sole responsibility of the worker(s) and/or the contractor/subcontractor. RTD does not accept any liability for any vehicles on the project.

NOTE: Vehicles parked on the ROW must be parked parallel to the tracks, and when turning around, always back away from the tracks.

8.29.1 Workers Transportation

RTD is not responsible for the transportation of workers to and from the project. Contractors and subcontractors providing transportation for workers must comply with federal and state laws. Workers riding in the back of pickup trucks, utility trucks, trailers, etc. on-or-off the project, is prohibited. RTD will accept no liability for the unauthorized transportation of workers.

8.30 Vehicle Operations

a) Vehicle operations are an integral part of our business. Therefore, the following rules shall apply to all business vehicle operations.
b) All vehicle operators are required to have a current and valid drivers' license for the vehicle to be operated, i.e., motorcycles, trucks, commercial drivers' license (CDL).
c) No unauthorized use of company vehicles shall be permitted.
d) All cargo or other items, i.e., laptops, suitcases, etc. shall be loaded and secured to prevent them from creating hazards in the event of hard braking.
e) Prior to entering the vehicle drivers should visually inspect the entire vehicle. Look for broken windows, light covers, low tire pressure, etc. Report all damage to your supervisor.
f) Adjust all mirrors for the proper vision of the operator.
g) All occupants must use their seat belts. The vehicle shall not be started/moved until all occupants have fastened their seat belts.

h) Check all gauges and switches for proper function and location, i.e., cruise control, windshield wipers, lights, gearshift, and radio. Do not look for these while you are operating the vehicle. Test the brakes to determine their effectiveness and get a "feel" for the necessary brake pressure.
i) Obey all traffic laws while operating the vehicle. **This includes the speed limit.**
j) Vehicles shall NOT be operated while under the influence of alcohol or drugs which may impair your driving ability. Some prescription drugs and over-the-counter drugs also may affect your driving and decision making abilities.
k) Cell phone operation must be conducted ONLY while stopped and out of traffic.
l) Pay attention! Keep your mind on driving and watching the road. Watch out for other drivers. Make sure are well rested and alert.
m) Don't get involved in "road rage". Don't become angry at aggressive drivers.
n) Simply pull over to the right lane or the side of the road and allow them to pass.
o) Always stay at least two (6) seconds behind the vehicle in front of you. If driving conditions are not optimal, i.e., rain, ice, snow, wind, or visibility, allow a further following distance.

Your personal safety is also our concern. When operating a company vehicle, please adhere to the following rules. Again, hopefully, you will use these rules in your personal activities.

- If your vehicle becomes disabled, call for help on your cell phone or display a white flag on the antenna as a request for help. Require identification of strangers who offer assistance.
- Keep your doors locked. Park in well lighted areas. Have your keys ready to enter your vehicle. You are a target when looking in your purse or digging in a handbag.
- When approaching your vehicle, try to observe any persons in the vicinity of your vehicle and look under your vehicle. Look in the back seat before opening the door. Carry a pen light flashlight.
- Vary your routes and schedules.
- Leave an itinerary of your trip with your supervisor or family member.

8.30.1 Driver Training

To ensure that all RRP JV team members that drive a company vehicle have adequate expertise and training to operate automobiles in the safest manner possible, it is required that all drivers complete an applicable driver training course. The required training includes provisions and training requirements intended to raise awareness and to instruct employees on safe driving techniques and crucial crash prevention techniques.

8.31 First Aid / CPR and Bloodborne Pathogens

All Contractors shall have at least one person certified in first aid and CPR at the job site at all times. Contractors are solely responsible to ensure the required and proper training of their workers.

Contractors shall provide an OSHA/ANSI (Z 308.1-1978) approved first aid kit on this job site. The Contractor site superintendent is responsible for ensuring that the kit is properly stocked and maintained, and inspected weekly per OSHA requirements.

The first aid kit will contain equipment and materials to be compliant with 29 CFR 1910.1030 - Bloodborne Pathogens, including mouth-to-mouth resuscitation devices, powdered bleach, and latex disposable gloves.

Only currently trained first aid personnel shall administer first aid at the job site as part of their job.

It is required regardless of severity of the incident that information regarding all First Aid incidents be entered onto the project First Aid Log.

8.31.1 Bloodborne Pathogens - Scope and Application

Bloodborne Pathogens are disease-causing organisms transmitted through contact with infected blood and other bodily fluids. Diseases such as the Human Immunodeficiency Virus (HIV) and Hepatitis B are among the most common forms of bloodborne pathogens. Any exposure to an infected individual's body fluids may result in transmission of bloodborne pathogens, which could lead to disease or death.

8.31.2 Requirements

When dealing with blood or other bodily fluids, Contractor workers are required to follow Universal Precautions. According to the concept of Universal Precautions, human blood and other human body fluids are treated as if known to be infectious for HIV, Hepatitis B, and other bloodborne pathogens.

All Contractors are required to make available to their workers rubber gloves rated at 5 microns or less and resuscitation masks.

All Contractors' certified first aid providers who will provide first aid as part of their job are required to wear disposable latex gloves and eye protection while performing first aid on an injured individual. If rescue breathing or CPR is performed, a resuscitation mask shall be provided by the Contractor for the protection of the injured and the provider.

Blood spills shall be immediately contained and cleaned with an anti-viral solution, or by a solution of bleach and water by the Contractor; unless local authorities prohibit such action.

Any material saturated with blood shall be considered Regulated Waste. This means liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; and items that are caked with dried blood or other potentially infectious materials. Discarded Band-Aids and gauze containing small amounts of blood products are not considered regulated waste. Disposal of all regulated waste shall be the responsibility of emergency medical personnel or the Contractor of the injured worker.

8.31.3 Training

At least one of each Contractor's onsite personnel shall be trained in First Aid and CPR, and they shall also be trained in the decontamination of blood spills. Contractors are solely responsible for this training.

8.32 Carbon Monoxide

Carbon monoxide is formed by the incomplete combustion of carbonaceous materials such as coke, oil, gasoline, and natural or manufactured gas. It is flammable, toxic, non-irritating, tasteless, odorless, and heavier than air. When inhaled it combines with hemoglobin of blood, excluding oxygen from the tissues, ultimately resulting in asphyxia. Some of the common symptoms of carbon monoxide poisoning are shortness of breath, headache, dizziness, muscular weakness and nausea.

Temporary heaters and/or gasoline motors (i.e., pumps, welders, generators) used where people are working in confined, enclosed buildings, and/or depressed areas produce the greatest carbon monoxide poisoning exposures and are prohibited on this project.

8.32.1 Contractor Testing Requirements

Use of devices that discharge exhaust products of combustion into an enclosed work area where work will be performed requires testing defined below:

Periodically test the work area to determine the concentration of carbon monoxide; at least three times each 8-hour period.

Test should be done at several different points within the area and at the breathing zone; about 4 feet above the walking/working surface.

Maintain a record of these tests, noting the date, time and result of each test.

Remove workers from the enclosed area when the 8-hour time-weighted average concentration of carbon monoxide reaches 25 PPM. Actions must be taken to reduce the concentration below 25 PPM before the workers are allowed to resume work in the area.

Test more often when the concentration of gas increases to 20 PPM.

Contractor use of solid fuel salamanders is prohibited within buildings and on scaffolds.

8.33 Silica

Silica is the main component found in sand, quartz and granite rock. Excessive amounts of silica dust may be generated during activities such as: sandblasting, rock drilling, roof bolting, foundry work, stonecutting, drilling, quarrying, brick/block/concrete cutting, gunite operations, lead-based paint encapsulate applications, asphalt paving, cement products manufacturing, demolition operations, hammering, and chipping and sweeping concrete or masonry.

Silica can cause silicosis, a serious and sometimes fatal respiratory disease. Silicosis develops from breathing silica dust on the job. It occurs in direct proportion to the percentage and the concentration of silica in the air and to the duration of exposure. The tiny hairs, mucous membranes, and other protective mechanisms of your upper respiratory tract and bronchi stop large silica particles, but the smallest dust particles are carried to your airways. These silica particles become lodged in the tiny air sacs of the lungs, which can prohibit oxygen from getting into the blood.

Symptoms of silicosis can either be chronic; appearing after 5 to 10 years of being exposed to invisible silica dust without using respiratory protection, or symptoms can be acute appearing after only a few weeks of working in thick clouds of silica without respiratory protection. Early stages of silicosis often go unnoticed but continued exposure may cause shortness of breath, possible fever and sometimes-bluish

earlobes or lips. Fatigue, extreme shortness of breath, loss of appetite and chest pain occur may occur in the future. Respiratory failure can also occur, potentially causing death.

Silica is capable of causing lung cancer with prolonged heavy occupational exposures. Workers with impaired lung function due to silica exposure are also more susceptible to other respiratory disease such as tuberculosis.

8.33.1 Requirements

In order to determine whether a product contains silica, the Material Safety Data Sheet may be used. In the event silica is present in a manner that may result in excess exposures, the following safe working procedures shall be followed to eliminate or control silica dust exposure:

- Use engineering controls to eliminate the hazard whenever feasible.
- Contractor and/or subcontractor initiated air tests or historical data are required to confirm the controls in place are working and whether PPE is or is not required.
- After working with products that generate visible airborne clouds of silica-containing dusts, each worker will be required to wash their face and hands before each break and at the end of the day. Eating, drinking or smoking near activities generating airborne clouds of silica-containing dusts is strictly prohibited.
- Consider wetting down dry materials and surfaces before cutting, chipping, grinding, sanding, sweeping or cleaning. Use the wet cut method whenever feasible.
- For abrasive blasting, consider replacing silica sand with safer materials. The National Institute for Occupational Safety and Health highly discourages the use of sand or any abrasive with more that 1% crystalline silica in it. Garnet, slags, and steel grit and shot are suggested as possible substitutes.

8.33.2 Respiratory Protection

ALWAYS consult with RRP Safety on the selection of proper respiratory protection prior to use. Filtering face piece-type particulate respirators (such as one with a N-100 classification) are a common respiratory protective measure for typical construction activities that generate dusts. The type of respirator needed will depend upon the silica concentration levels and shall be determined by the contractor and/or subcontractor in consultation with RRP Safety.

Workers requiring respiratory protection must be trained, medically evaluated to wear respiratory protection and fit-tested in accordance with this Plan before using their respirator.

8.33.3 Training

Workers conducting work that may result in exposures to silica above the action level must be trained in the hazardous effects of silica in accordance with the hazard communication section of this Plan.

8.34 Respiratory Protection

The selection, use, and maintenance of respiratory protective devices will be in accordance with this Plan.

Employees who require respiratory protection will be "clean shaven" as follows:

- Beards and moustaches must not protrude beyond projected lines, drawn vertically from the corner of the mouth.
- When wearing full-face protection, sideburns will not extend below a line drawn through the top of the notch in the cartilage of the ear just above and immediately in front of the ear hole and the corner of the eye.

Employees with long hair must control their hair so that it does not get trapped beneath the fitting surface.

The issue of all respiratory equipment must be recorded.

Hose couplings used with supplied-air respirators must be incompatible with other couplings.

Employees must exit from work areas when an evacuation alarm is activated, regardless of the type of respirator being worn.

Compressed air sources will not be used for respiratory protection unless it is fitted with adequate filtration and safety devices to support a continued supply of breathable air.
Documented results of air quality tests conducted by a fully accredited laboratory will be maintained on site and readily available.

Entry to IDLH or oxygen-deficient atmospheres, or atmospheres where the level of contaminant may change or be unknown due to the activities to be conducted, will not proceed until a JSA has been developed in writing and all necessary actions implemented.

8.34.1 Medical Evaluation

A medical evaluation will be completed annually for employees who routinely wear a respirator.

NOTE: An evaluation is not necessarily a physical examination by a physician; an evaluation is a review by a "licensed healthcare professional" (LHCP) based on the job/task requirements, a completed Respirator Medical Evaluation Questionnaire, and other relevant information. The LHCP may refer the potential respirator wearer to a physician at her/his discretion.

A written clearance must be received for employees requiring routine respirator use.

Biological monitoring in the form of blood and/or urinary analysis for employees will be completed where required by applicable standards, such as OSHA Lead in Construction, or when specified by the Project Manager.

8.34.2 Cleaning and Maintenance

Respirators must be regularly inspected, cleaned, and maintained.

Respiratory protective equipment found to be defective should be taken out of service, tagged with a "Danger – Don't Use It – Unsafe Tag" and repaired before being allowed for re-use.

Records will be maintained for each respirator and will include inspection and repair records.

To facilitate proper maintenance, a clean room with running water is required for maintenance of respirators.

Respirators will be inspected, cleaned, and maintained by the employee to whom it is issued.

When not in use, respirators will be stored in clean, sealed containers provided for that purpose.

8.34.3 Selection

There are a number of important aspects of respirator selection that must be considered. These include those noted below.

The first step in respirator selection is to identify the hazards (such as the contaminants that employees are expected to be, or may be, exposed to).

Contaminant-based selection factors include:

- The nature, toxicity, physical form, and concentration of the contaminant
- Whether the contaminant is particulate, gas or vapor, or a combination of these
- Whether failure of the device can result in a situation that is immediately dangerous to life or health
- The need to wear other forms of personal protective equipment (such as eye or skin protection)
- The adequacy of the warning given by the contaminant
- he possibility of the contaminated atmosphere being flammable Task-related selection factors include the following:
  - Whether device is for regular use or for emergency or rescue purposes
  - The expected length of time the employee will be in the contaminated atmosphere
  - The level of activity and mobility required
  - The access to, and nature of, the working environment and its location with respect to a source of air suitable for breathing
  - The need for clear vision and communication
- The facilities available to maintain the device Wearer-related selection factors include the following:
  - Basic physiological considerations (such as regular wearing of some types of respirators places additional strain on cardiac and respiratory systems, and the physical weight of the device may pose additional physical/muscular strain).
  - The importance of facial fit (such as facial hair, scars, hollow temples, very prominent cheekbones, and a misshapen nose) may cause sealing problems.

Positive-pressure respirators may reduce the effect of poor facial fit, but will not eliminate the effect of leakage caused by facial hair. Where conservation of the air supply is important (such as SCBA), any leakage from poor facial fit reduces service time.

- User acceptance. It is important that the respirator is worn the entire time that an employee is at risk of exposure. This will be influenced by the wear ability (such as comfort, field of vision, and the need to communicate without removing the device).

Employees required to use respiratory protection should be offered a choice of at least two different makes and, where available, different models of respirators. They must be allowed to choose the respirator that gives the best fit.

Only certain types of respirators are allowable in IDLH atmospheres. They include the following:

- A SCBA, full face piece with minimum service life of 30 minutes
- A combination SAR with an auxiliary self-contained supply
- A respirator specifically certified for escape from an IDLH atmosphere

When employees must enter IDLH atmospheres, RRP Construction Manager and RRP Safety must be notified. A written specific IDLH entry plan will be created in which one or more rescue personnel will be located outside the IDLH area and will maintain contact with the employees in the IDLH area. The rescue personnel outside the area will be trained to provide effective emergency rescue and will be equipped with retrieval equipment or other means for rescue as necessary.

8.34.4 Breathing Air Quality

Air supplied to airline respirators or SCBAs will meet the following Grade D minimum requirements:

- Oxygen: 19.5 percent minimum, 23.5 percent maximum
- Carbon Dioxide: 0.1 percent maximum,
- Carbon Monoxide: 10 ppm maximum
- Condensed Hydrocarbons: 5 mg/m^3 maximum
- Water: Concentration to be below dew point when the air is released into facepiece

An air compressor system may be used to supply breathable air, provided the compressor used does not require oil to lubricate the piston rings and the valves. To be used, an oil- lubricated compressor must be equipped with the following:

- A filter to remove oil mist
- Charcoal to remove oil vapor.
- A carbon monoxide high-concentration alarm or a high-temperature alarm. When a high-temperature alarm is used, the carbon monoxide concentration will be tested often enough to ensure that the concentration remains below 10 ppm.

- An air tank with sufficient capacity to allow the employee to escape to clean air upon compressor failure.
- A compressor-failure alarm capable of warning the employee or his/her standby.
- A compressor air intake located away from air contaminants such as engine exhaust, ventilation exhaust, process vents, welding fumes, or paint spray.

Airline respirator couplings will be incompatible with all other couplings.

When air is supplied from cylinders, the quantity of air available will be monitored frequently enough to ensure that the employee will leave the contaminated atmosphere before the air supply runs out.

Personal air samples must be collected on a representative employee in each job classification without sufficient objective data.

8.34.5 Voluntary Use of Respirators

Supervisors refer to OSHA 29 CFR 1910.134(c) (2) or for those employees who want to voluntarily wear a respirator when the use is not required. Compliance with Appendix D of the above OSHA standard and all aspects of this practice are mandatory.

Line management may provide respirators at the request of employees if line management determines such respirator use will not in itself create a hazard. However, supervisors may not permit employees to use their own respirators.

Employees who want to voluntarily wear a respirator must read and sign a copy of OSHA's Appendix D after which a copy is provided to the employee and another copy maintained in Records.

See below for an image of OSHA's Appendix D. A copy of Appendix D can be obtained from RRP Safety.

8.34.6 Training

Employees will be trained initially, annually, and on an as-needed basis in the proper use and limitations of the respirators to be used for routine and/or emergency work. Training will include the selection of a properly fitting face piece and the trial wearing of each type of respirator to be used.

RRP Safety or designee will conduct training. As a minimum, the training should cover:

- Hazard identification – gaseous and particulate contaminants, oxygen-deficient atmospheres, and hazard evaluation/risk assessment
- Reasons for the use of respirators – exposure limits for various substances set by applicable standards
- Project areas where respiratory protection will be required
- Current controls in place (if any) or proposed (such as engineering and administrative)
- Respirator selection

- Respirator fitting
- Limitations of respirators
- Maintenance, cleaning, and storage of respirators
- Training records

Appendix D to Sec. 1910.134 (Mandatory) Information for Employees Using Respirators When Not Required Under the Standard

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.

2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.

3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.

4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

8.35 Safety Signs, Posters and Banners

OSHA-required signage must be placed on the jobsite in a central location, in the field or in the office, where most employees will see it frequently. An information/ bulletin board must be set up to share information on work sites with more than 40 workers and that will stay in one location for about more than two months.

Warning, Danger, No Trespassing and other signs, correctly posted, help to protect the public and Contractor workers from accidents and incidences.

Posted signs shall be maintained in good condition. A sufficient supply of the necessary signs shall be kept on hand for replacement and to cover new hazards as they develop.

Employees must be trained in the meaning of the various signs, tapes, tags and postings. This training shall consist of recognizing the various danger signs in order to understand the hazard and take appropriate precautions.

Additional posting requirements to be completed by the Contractors are found in the Federal Occupational Safety and Health Act, Construction Standards. Such requirements include but are not limited to posting for lasers, powdered actuated tools, and overhead hazards.

NOTE: Banners, signs, posters, stickers, etc. with political messages, obscene wording or drawings, or anything deemed offensive to the owner, owner's workers, other subcontractors workers and/or the general public, are prohibited from being posted or displayed on the jobsite.

8.36 Work Permits

(Hot Work, Critical Lift, Confined Space Entry, Trench and Excavation)

A Work Permit will be issued before starting certain activities to verify that adequate planning has been completed to conduct the work safely, healthfully and in concert with sound environmental practice.

The following activities must be approved by a Work Permit prior to start:

8.36.1 Hot Work Permit

Hot work is any work that involves burning, welding, using fire- or spark-producing tools, or that produces a source of ignition. Exclusion activities are those that include electric soldering, pedestal/small bench grinders, and sanders.

8.36.1.1 Hot Work Permits

Union Pacific Railroad (UPRR) has specific requirements for conducting hot work in association with fiber optic engineering, construction and maintenance activities on their right of way.

Workers must take every precaution to prevent loss and damage by fire.

Work activity that produces sparks or open flame is considered to be Hot Work. As first consideration all Hot Work shall be performed off of Railroad property, if possible. This work includes, but is not limited to any activity that creates; live flame, molten slag, sparks, metal cutting, welding, grinding, and using a cut-off saw for

metal or dry concrete. The use of abrasive wheels to cut or grind and any type of welding or using a torch shall be considered Hot Work. Open warming fires are not allowed in any manner, shape or form.

If removal of the planned Hot Work activity from Railroad property is not possible RRP project personnel are required to fill out the Hot Work Checklist (Exhibit P)

Prior to Hot Work, a job briefing must be conducted to discuss the following:

- Insure the RRP Construction Supervisor has been advised of proposed Hot Work activities.
- Preparation of the Hot Work Checklist by the contractor and discussion of roles and responsibilities including assignment of the Fire Watch person, if needed.
- Remove combustible material within 50 feet of the Hot Work area.
- Review of the risk factors identified in the fire risk assessment and the application of the preventive measures required.
- Fire prevention plan detailed in Railroad Emergency Response Form (see below) to be used in case of fire.
- Review of the evacuation routes from the work site (see below).
- Review of the applicable Emergency Action Plan.

Every effort should be made to extinguish a fire without endangering the safety of workers. Report promptly to RMCC any fire seen on or near the right of way, unless the fire is being controlled.

Fires that get out of control must be reported to local fire/emergency personnel and RMCC (888-877-7267). The area must be evacuated using the route detailed in the job briefing.
Others in the immediate area also must be alerted.

Do not place gasoline or other combustible materials, including oxygen and acetylene, in a bus or truck compartment occupied by the driver or other persons. Do not transport gasoline or other combustibles in an automobile trunk, except in an emergency and then only in an approved container secured against movement.

Railroad's Response Management Communications Center (RMCC) at 1-888-UPRR-COP (1-888-877-7267)

8.36.2 Crane Critical Lift Permit

A non-routine crane lift requiring detailed planning and additional or unusual precautions. Critical lifts include, but are not limited to:

- Lifts made when the load weight is 75 percent or more of the rated capacity of the crane
- Lifts that require the load to be lifted, swung, or placed out over critical processes
- Lifts made with more than one crane (other than a tail crane)

- Lifts involving non-routine or technically difficult rigging arrangement
- Hoisting personnel with a crane or derrick

8.36.3 Confined Space Entry Permit

Permit-required confined space (permit space) means a confined space that has one or more of the following characteristics:

Contains or has a potential to contain a hazardous atmosphere such as:

- The presence of gases, liquids, or solids which are flammable, toxic, asphyxiating, radioactive, hot, or refrigerated.
- Oxygen concentrations below 19.5 percent or above 23.5 percent under normal atmospheric pressure.
- A flammable or gas vapor level greater than 10 percent Lower Explosive Limit (LEL).
- Has airborne combustible dust at concentrations likely to support a fire or explosion.
- Contains a material (except water) that has the potential for engulfing an entrant,
- Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor that slopes downward and tapers to a smaller cross-section, or
- Contains other recognized serious safety or health hazard.

8.36.4 Trenching and Excavation Permit

An excavation permit must be issued for all excavations 4 feet deep or more that workers may need to enter, except those using the 1-1/2-foot horizontal to 1-foot vertical (34□] slope.

8.37 Manual Lifting

Manual Lifting is considered to have greater risk if any of the following characteristics are present:

- Repetitive or sustained application of force
- Repetitive or sustained awkward posture
- Repetitive or sustained movement
- Application of high force
- Exposure to sustained vibration
- Handling of unstable or unbalanced loads or loads that are difficult to grasp or hold
- All personnel will be trained and coached on safe manual material handling techniques
- Compliance with applicable standards is required. However, a limit of 40 pounds per employee is recommended.

8.37.1 Back Pain

Work-related back pain is rarely caused by a single accident or injury, but by a series of repeated, cumulative injuries. Permanent disability can result if preventive action is not taken. During the risk assessment, special attention must be given to work-related back pain. Manual handling is a major source of work-related back pain.

8.37.2 Description

Work-related back pain can be localized and accompanied by discomfort, fatigue, and numbness of the muscles, tendons, or soft tissue. In severe cases, loss of function, limited movement, and loss of muscle control can occur.

Potential back strain situations include, but are not limited to:

- Exposure to handling loads (lifting, carrying, and pushing), repetitive handling work, static and awkward posture, twisting, bending, or stretching at the extreme range of movement
- Handling heavy, bulky, difficult to grasp, unpredictable, or difficult to handle (such as sharp, slippery) loads
- Scaffolding operations
- Commissioning and decommissioning (opening and shutting of valves and blinds)
- Erection and stripping of formwork

Special attention is to be given to employees with a high-potential risk, including those who might be pregnant, employees reporting persistent back pain, and employees with a related health problem.

Basic rules for manual handling and lifting techniques are discussed on the next page.

MANUAL HANDLING OF LOADS

A manual handling operation is any transporting or supporting of a load, including the lifting, lowering, putting down, pushing, pulling, carrying, or moving by hand or by bodily force. Picking up and carrying a toolbox or a step ladder or even picking up a screwdriver or hammer, or a set of stocks, is manual handling, just as unloading and positioning a boiler might be. Anything from the extremely light to something requiring your maximum strength is included.

Manual handling accounts for a large number of accidents each year and many millions of "days off' are due to back and other injuries. Once someone's back has been weakened by injury it is often a recurring problem for the rest of that person's life.

Employees have a duty to make full and proper use of any information, tools, or services provided by an employer in connection with manual handling. This includes following advice and training given on lifting

An employer's duties can be summarized as – avoid the need for manual handling wherever possible; assess the risk; reduce the need for providing mechanical aids; and train employees in good manual handling techniques.

Basic Rules for Safe Manual Handling

- Think before lifting! Is it heavy? (above 35 pounds) Is it large or awkward? Where is the center of gravity? Can you manage it alone?
- Use the strong muscles and bones of your legs, not the complex and vulnerable muscles in your back.
- Make sure you have a firm grip of the load and that you can sustain the grip for the duration of the lift. Wear industrial gloves to improve grip and protect hands from sharp edges.
- Make sure you know where you are going to put the load and that the way is clear of obstacles and not slippery. The load must not impede your forward view.
- If in doubt, get help! There is nothing macho about a slipped disc!

Lifting Technique

- Tuck chin in. This keeps back as straight as possible and therefore least vulnerable.
- Place feet as close to load as possible, about a hip-width apart, one foot slightly in front.
- Bend the knees and crouch down.
- Take a full grip, using palms, not fingertips.
- With elbows tucked in, straighten the legs, lifting smoothly.
- Carry the load forward at waist height.
- Change direction by turning on your feet, not by twisting the trunk.

Put down in the same careful way and continue being careful as you straighten up.

8.37.3 Manual Lifting Risk Control

If a manual-handling task has been assessed as a risk, then the Safety Department and work supervisor must, if practicable, redesign the manual handling to remove the risk.

If removal of the risk is not practicable, the RRP Construction Manager and the work supervisor must, if practicable, redesign the manual handling in order to reduce substantially the factors contributing to the risk.

If the task has been assessed as a risk and it is not practicable to redesign the manual handling to remove the risk or substantially reduce the factors contributing to the risk, then RRP Construction Manager and the work supervisor must provide mechanical aids (and training in their use) to assist the employee carrying out the task.

If all the above are not practicable, then the RRP Construction Manager and the work supervisor must provide training in methods of manual handling appropriate for the intended work.

Control options include, but are not limited to, the following:

- **Modify Object –** The object being handled may be modified or repackaged into a bigger, smaller, or different size, shape, and/or weight.
- **Modify Workplace Layout –** The layout of the plant, equipment, and furniture may be modified or rearranged. This may include increased attention to housekeeping and maintenance functions.
- **Rearrange Materials Flow –** The schedule or timing and path(s) of materials flow may be modified.
- **Different Actions or Movements –** With or without workplace modifications, a task may be done in a different way using different actions and movements.
- **Modify Task – Mechanical Assistance –** The risk of a task may be reduced by simple mechanical assistance provided by simple levers and minor rearrangements of equipment and plant.
- **Modify Task – Team Lifting –** The actions and movements required can be modified by the assistance of others (such as team lifting).
- **Mechanical Handling Equipment –** The provision of mechanical handling equipment can reduce the risk by reducing the force required.
- **Toolbox Meetings and Pre-Task Hazard Checklists –** Supervisors will discuss the potential hazards and control strategies of manual handling to eliminate and/or reduce the potential for injury.

8.38 Material Storage

Temporary storage of material shall be neat, orderly, and out of walkways, stairways, fire escapes, etc.. Materials shall not be haphazardly piled or strewn about in any work area. AT NO TIME WILL MATERIAL BLOCK ANY MEANS OF EGRESS.

The storage of material shall not create hazards. Bags, bundles, pipes and other containers or materials must be stacked, blocked (cribbed), interlocked, and limited in height so they do not slide or collapse.

Material should be secured down at all times to avoid being airborne in the event of high winds and stored off the ground on pallets, 3 x 4 or 4 x 4 timbers. 2 x 4 timbers are prohibited unless laying flat. Material subject to water damage must be protected from the weather or other sources of water by removal, covered with tarps, etc.

RRP Construction Manager shall designate areas for storage for each contractor's materials. Each contractor is responsible for notifying the RRP Construction Manager five days prior to a material shipment arriving at the project site to ensure proper planning for storage. Each contractor and subcontractor is solely responsible for materials brought on to the site.

Equipment utilized in the movement and storage of materials shall be in good condition and shall meet the manufacturer's specifications, and applicable federal, state, and local standards and codes. Personnel utilizing such equipment shall be properly trained as to the operation of such equipment. Each contractor and/or subcontractor is solely responsible for such training and re-training if required.

The hoisting of material in 55-gallon drums with torched out handle holes for rigging straps or cables is prohibited. If 55-gallon drums are to be utilized for moving material onto the building, they must be secured in a drum cradle.

8.39 Hazardous Energy Control (Lockout / Tagout)

This policy identifies the safety requirements and procedures that shall be followed for lock-out or tag-out of energy isolating devices. These procedures ensure that the machine or equipment is isolated from all potentially hazardous energy sources and locked-out or tagged-out BEFORE employees perform any servicing or maintenance activities where the unexpected energizing, start-up, or release of stored energy could cause injury.

8.39.1 Responsibility

Only properly trained, authorized employees may place or remove Lock-Out, Tag-Out devices.

8.39.2 Preparing for Lock Out / Tag Out

Complete a survey to locate and identify all isolating devices to confirm which switches, valves, or other energy isolating devices apply to the equipment being locked or tagged-out. More than one energy source (electrical, mechanical or others) may be involved.

8.39.3 Procedure Sequence

Notify all affected employees that a lock-out or tag-out system is going to be utilized, and why.
Authorized employee shall know the type and magnitude of energy that the machine or equipment utilizes, and shall understand the hazard involved.
If the machine or equipment is in operation, shut it down using the normal stopping procedure (press stop button, open toggle switch, etc.)

Operate the switch, valve or other energy isolating device so that the equipment is isolated from its energy source.
Stored energy, such as that in springs, elevated machine members, rotating flywheels, hydraulic systems, air gas, steam, or water pressure, shall be dissipated or restrained by methods, such as repositioning, blocking, bleeding down, etc.
Lock-out or tag-out the energy isolating devices with the assigned individual locks and/or tags.

After ensuring that no personnel are exposed to danger, verify energy sources have been disconnected rendering the equipment inoperative by operating the START button or normal operating controls.

CAUTION: Return operating controls to the "neutral" or "off" position after confirming the equipment in inoperative.
The equipment is now locked and/or tagged-out.

Do not attempt to operate any switch, valve, or other energy isolating device that has been locked or tagged-out.

8.39.4 Restoring Machine or Equipment to Normal Operations

After the servicing and/or maintenance is completed and equipment is ready to be returned to normal production operations, check the area around the machine to ensure that no one is exposed to danger.

After all tools have been removed from the machine or equipment, guards have been reinstalled, and employees are in the clear, remove all lock-out and tag-out devices.
Operate the energy isolating devices to restore energy to the machine or equipment.

8.39.5 Procedure Involving More Than One Person

If more than one individual is required to lock-out or tag-out equipment, each person shall place his/her own personal lock-out or tag-out device on the energy isolating device.
When an energy isolating device cannot accept multiple locks or tags, multiple lock-out or tag-out devices (hasps) may be used.

If lock-out is used, a single lock may be used to lock-out the machine or equipment with the key being placed in a lock-out box or cabinet which allows the use of multiple locks to secure it.

Each employee shall then use his/her own lock to secure the box or cabinet. As each person no longer needs to maintain his/her own lock-out protection, that person shall remove his/her lock from the box or cabinet.

8.39.6 Simple Lockout/Tagout

Simple Lockout/Tagout is a lockout/tagout action performed meeting **all** of the

following requirements:

- The machine or equipment has no potential for stored or residual energy or accumulation of stored energy after shutdown that could endanger employees.
- The machine or equipment has a single energy source that can be readily identified and isolated.
- The isolation and locking out of that energy source that completely de- energizes and deactivates the machine or equipment.
- The machine or equipment is isolated from that energy source and locked out during service or maintenance.
- A single lockout device achieves a locked out condition.
- The lockout device is under the exclusive control of the authorized worker performing the service or maintenance.
- The service or maintenance does not create hazards for other employees.
- The employer, in using this exception, has had no accidents involving the unexpected activation or energizing of the machine or equipment during service or maintenance.

8.40 Extreme Weather Safety

8.40.1 Windstorm

- Shut off gas and/or the flow of flammable liquids.
- Shut down work at height
- Shut down all crane operations
- Cover equipment and materials to protect against weather exposure.
- Tie down and effectively secure all materials to limit the risk of flying debris
- Securely support structures under construction.
- Eliminate or minimize ignition sources.

Before re-starting construction operations:

- Inspect for live power lines, leaking flammable gases or liquids and structures in danger of falling.
- Separate damaged from undamaged materials.
- Inspect for structural stability of building structures, scaffolds, material stockpiles, etc.

8.40.2 Severe Winter Storm (Ice Storm or Blizzard)

- During work hours, designate a site or facility worker to monitor the weather, both visually and by tuning into the applicable weather broadcast station.
- If a weather warning is issued, inform the Project Manager and/or Superintendent and/or Safety Department immediately.
- The project Manager and/ or Superintendent must assess the available information, determine if the threat is imminent, and decide on a course of action. This course of action may include amongst other things: shutting the worksite, securing equipment and structures, sending workers home in advance of the storm if it is safe to do so (i.e. there is enough storm warning to do so).
- As applicable, notify recognized emergency personnel so they can prepare for the storm by gathering first aid, survival gear, etc. prior to the arrival to the storm.

- If threat is imminent, workers must be sent to a pre-determined safe location to wait out the storm (this information is noted in the site evacuation plan).
- Conduct a visual inspection of the work site to ensure all workers have evacuated the site as directed.
- Do a head count and report results to the Project Manager and /or Superintendent and/or safety personnel.
- If situated in a remote location, advise company management of your precise location, number of workers on site and the readiness of the emergency. If possible, maintain or re-establish contact periodically so management can advise outside emergency responders if necessary.
- Once the storm passes, the Project manager and/or superintendent must assess the site for damages and evaluate the area condition to determine a course of action.
- As required, request assistance from utility providers and /or emergency responders to restore the site to a safe condition.
- Do not allow workers to leave the site (drive) until conditions/ radio broadcasts indicate it is safe to do so.

8.40.3 Frostbite

- Frostbite is the freezing of fluids and tissues of the skin. When it is very cold especially when the wind is blowing hard, it is difficult to keep the extremities of your body warm. Thus, frostbite is a great danger to your nose, cheeks, ears, toes, and fingers.
- The first sign of frostbite is reddening of the skin. It then turns blotchy white, grey or yellow. It finally turns white and it may blister. The body part may also feel very cold and numb. In an advanced stage, there is not feeling at all in the exposed skin.
- Frostbite victims may also suffer from hypothermia or the loss of body heat. Symptoms are shivering, loss of hand control, drowsiness and not caring about staying warm.
- Hypothermia victims need to get out of the cold immediately.

To treat frostbite:

- Keep the victim as warm and dry as possible.
- Warm the body with blankets or with worm (not hot) water. If the frozen part get too hot the resulting damage will increase. Do not rub!!!
- Give warm liquids, but no alcohol.
- Place the frostbitten part lower than the heat to increase blood circulation.
- Once the area is thawed, the victim should gently exercise the area to bring blood flow back into the injured part.
- Get medical attention as soon as possible. NOTE – if the victim must go back into the cold again, do not thaw the frostbitten area as it will freeze again and increase the damage.

The best plan is to avoid frostbite:

- Do not stay in the cold weather whenever possible.
- Wear clothing to protect your face, nose, ears, fingers and toes.
- Check each other frequently for signs of frostbite and/or hypothermia.
- When you are in the cold, wiggle your toes and fingers frequently. If they are beginning to lose feeling, are tingling or painful, go inside a vehicle or building to warm up.

8.40.4 "Cold Stress" or Hypothermia

When your body temperature drops even a few degrees below normal (98.6*F or 37*C), you can begin to shiver uncontrollably, have difficulty doing even simple things, slur speech, become weak, drowsy, disoriented, confused, unconscious and even fatally ill. This loss of body heat is known as Cold Stress or Hypothermia. Victims of hypothermia may even deny they are cold!

If you suspect hypothermia:

- Call an ambulance or a doctor immediately. It may be a life or death call!
- Take the person into a warm place or at least provide some shelter from the wind, rain or snow and keep the head covered.
- Remove all wet clothing and bundle the victim with dry blankets or dress in dry clothing.
- Do not rub or massage the victim or place the victim in hot water.
- Give warm beverages but do not give alcohol or caffeine!
- If the person is unconscious, use advanced first aid techniques (e.g. CPR) if you are trained to do so.

Prevention is your best protection:

- Dress warmly, stay dry and bring along an extra set of dry clothes to work with you, just in case you get wet.
- Always let someone know where you will be and when you expect to be back. Frequently check co-workers for signs of hypothermia.
- Dress in layers. Layering your clothing allows you to adjust your clothing to the temperature conditions. In cold weather, wear cotton or lightweight wool next to your skin and heavier clothing as wool over your under garments. Wear waterproof, wind resistant outer-garment fabrics such as nylon if working outside.
- Wear a hat. Body heat is lost through the head.
- Wear waterproof boots in damp or snowy weather and always pack some rain gear.

Remember! It does not have to be winter to suffer from hypothermia. Anyone not prepared for a change in the weather or conditions, in even relatively mild temperatures, can be at risk (especially if you are wet).

8.40.5 Thunderstorms/Lightning

Lightning always accompanies a thunderstorm. Thunderstorms are intense local storms averaging 20 miles across and reaching as high was 10 miles.

Before Lightning Strikes:

- Keep an eye on the sky. Look for darkening skies, flashes of light, or increasing wind. Listen for the sound of thunder.
- If you can hear thunder, you are close enough to the storm to be struck by lightning. Find shelter immediately.
- In the United States, listen to NOAA Weather radio, commercial radio, or the television for the latest weather forecasts.

When a Storm approaches:

- Find shelter in a car or a building. Keep car windows closed and avoid convertibles.
- Telephone lines, metal pipes and structural steel can conduct electricity, Unplug electrical equipment. Avoid using the telephone or any electrical equipment. Stop work on all structural steel and find shelter.
- Avoid running water for any purpose.
- Turn off the air conditioner. Power surges from lightning can overload the compressor resulting in a costly repair.
- Draw blinds and shades over windows. If a window breaks, the shades will prevent shattered glass from entering the building.

If caught outside:

- In a wooded area, take shelter under shorter trees.
- If working on a project site seek shelter in vehicles or nearby structures.
- Squat low to the ground when moving around in the open during a storm.
- Make yourself as small of a target as possible, placing your head between your knees will make you smaller target than lying on the ground.

After the Storm passes:

- Stay away from any storm damaged areas or areas of moving water.
- Contact the project management and/or your supervisors for information and instructions.

If struck by lightning:

- People struck by lightning carry not electrical charge and can be handled safely
- Call for help. Call 911 or the appropriate emergency number.
- The injured person has received an electrical shock and may be burned where struck and where the electricity left their body. Check for burns and wounds in both places.
- Give first aid. If breathing has stopped begin rescue breathing. If the heart has stopped beating, perform CPR if trained to do so.

8.40.6 Tornado

Characteristics of a tornado include:

- A sickly greenish or greenish black color to the sky
- Hail, particularly if a watch or warning has been issued
- Unusually high relative humidity
- A strange quite occurs within or shortly after a thunderstorm
- Clouds move very fast, especially in a rotating pattern or converging towards one area of the sky
- A sound like a waterfall or rushing air that turns into a roar as it comes closer
- Debris dropping from the sky or branches or leaves being pulled upwards, even if no funnel cloud is visible.
- A funnel-shaped cloud that is rotating

Identify the Safest gathering locations; know the warning signs:

- Identify the safest gathering place in your worksite, project office or at your home. Choose the basement if one exists or if there is no basement a center hallway, bathroom, or closet on the lowest floor may be the best option.
- Construction worksites have many materials lying around which will become potentially deadly projectiles during a tornado. Try to identify a location that will provide some safety from flying objects. In some cases, it may be better to abandon the worksite and seek refuge by lying in a ditch or on low lying ground.
- If you are in a high rise building or located near the windows you may not have time to get to the lowest level. Try to pick a place in a hallway in the center of the building away from the windows.
- Be alert to changing weather conditions. Blowing debris or the sound of an approaching tornado may alert you. Many people say that it sounds like a freight train.
- Conduct periodic tornado drills and review the plan often.

Stay Tune for Storm Warnings

- Periodically check your local radio and TV stations for further updates.
- **Know what a tornado WATCH and WARNING means:**
- A tornado **WATCH** means conditions are favorable for the development of tornadoes within the areas and times specified by the watch alert.
- A tornado **WARNING** means one or more tornado are occurring in the area specified. Find a safe location immediately. The next bulletin will update the expected direction, development and the expected duration.

When a Tornado WARNING is issued…

- Listen to local radio and TV stations for further updates.
- Be alert to changing weather conditions. Blowing debris or the roar of an approaching

tornado may alert you.

When a Tornado WATCH is issued…

- If you are inside, go to the safe designated to protect yourself and others. Protect yourself from glass on other flying objects. The tornado may be approaching your area.
- If you are outside, hurry in side to the basement or lowest level, lie flat in a ditch or low lying area.
- If you are in a vehicle, get our immediately and head to a safe location.

After the Tornado passes…

- Watch out for fallen power lines and stay out of damaged areas.
- Listen to the radio and/or contact the Project management or supervisors for further instructions.
- Use a flashlight to inspect your workplace or home for damage. Do not use candles at any time as open flames may become an ignition source.

8.41 Hazard Communication

It is the intent and policy of RTD, RRP, and all project applicable companies to work within the established guidelines to protect personnel from potentially hazardous materials. All project personnel are responsible for identifying and properly managing hazardous materials that are required to perform their work functions, and/or which could adversely affect company personnel, project personnel and/or the environment.

The RRP Safety department will assist in determining company and/or project compliance and will provide advice or guidance for the training or use of specific products on the jobsite. In some circumstances the designated representative will conduct the training or he/she may utilize manufacturers' representatives. Recent changes in OSHA's Hazard Communication Standard brought the regulation in line with international standards through the creation of the Global Harmonizing System (GHS). Implementing the Global Harmonizing System, helps ensure quality and consistency in the classification and labeling of all chemicals; improving an employee's ability to quickly understand critical safety information.
This program is designed to assist RRP and its subsidiary team members in understanding three key elements of the GHS: Hazard Classification, Container Labeling and Safety Data Sheets. Other topics in this program include: The Written Hazard Communication Plan, Physical and Health Hazard Classes, Pictograms, Signal Words and other information found on GHS Container Labels and Safety Data Sheets.

8.41.1 Background

Hazardous chemicals are utilized by RRP and subsidiary personnel in various project and task specific activities. Personnel have the potential to handle, use, or work around potentially harmful substances during the course of their career within the RRP family of companies. Effects from exposure to hazardous chemicals can range from mild skin or eye irritation, to severe burns, to death from various types of exposure. Because of the dangers presented by hazardous chemicals, The Occupational Safety and Health Administration (OSHA) developed the Hazard Communication

Standard, CFR 1910.1200. OSHA's regulation requires companies to develop a Hazard Communication Program which communicates the hazards of workplace chemicals to all employees.

8.41.2 The Written Hazard Communication Plan & the Global Harmonizing System

RRP's Hazard Communication Program includes a written plan. This written plan specifies the policies, procedures and essential elements of the Hazard Communication Program such as container labeling, the collection, storage and availability of Safety Data Sheets, and an inventory with all known hazardous chemicals on-site. The written plan also details specific guidelines for the training of employees. For example, employees will receive specific training based on the hazardous chemicals to which they may be exposed. The written plan is an important document which all employees have a right to review upon request. OSHA's Hazard Communication Standard was first enacted in 1983; however, recent changes have brought the regulation more in line with international standards with the implementation of the Global Harmonizing System (GHS). Created by the international community and adopted by the United Nations, the GHS provides a single set of standardized criteria for classifying chemicals and mixtures according to their health, physical, and environmental hazards.

8.41.3 Hazard Classification

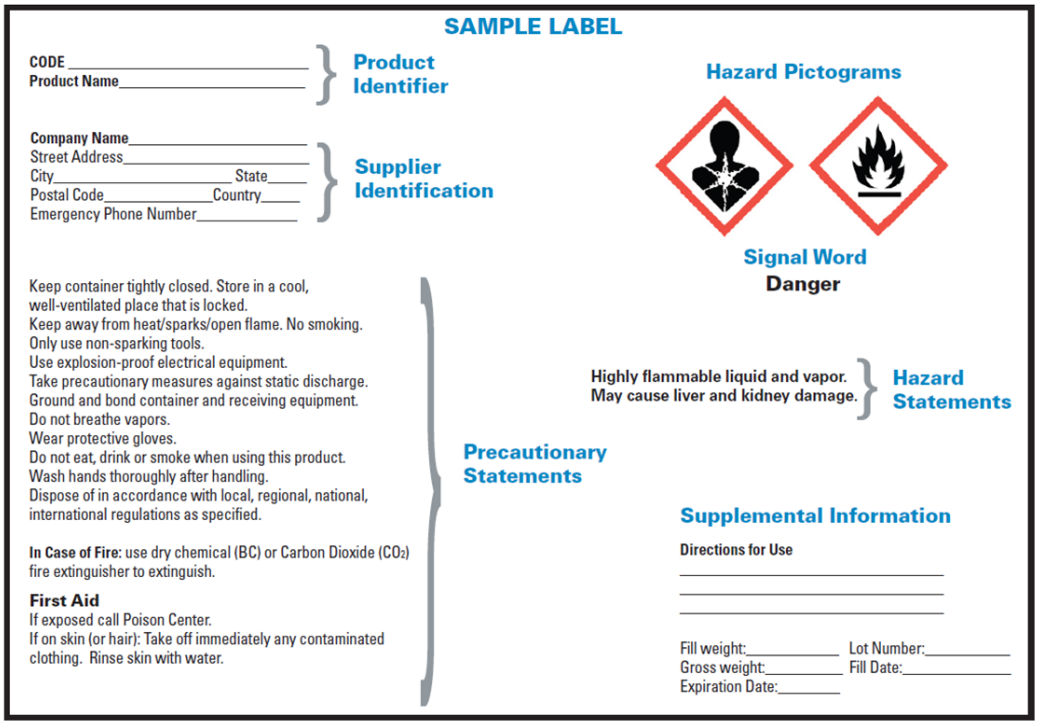
Hazard Classification is the process of assigning a chemical or mixture to a hazard or danger category based on its health and physical hazards. Physical hazards are the properties of a gas, liquid or solid that could adversely affect you or the workplace in a physical way, such as a fire or explosion. Health hazards are determined by the properties of a substance or mixture that can cause illness or injury to the skin, eyes, lungs or other organs and body parts. Because there are such a large variety of hazardous chemicals, there are also a large variety of physical and health hazards presented by these chemicals. To better communicate the specific information needed by chemical workers, the Global Harmonizing System has created multiple classes of hazards. There are 16 classes of physical hazards and 10 classes of health hazards. The 16 classes of physical hazards include: explosives, flammable gases, aerosols, oxidizing gases, gases under pressure, flammable liquids, flammable solids, self-reactive substances, pyrophoric liquids, pyrophoric solids, self-heating substances and mixtures, substances and mixtures emitting flammable gases when contacting water, oxidizing liquids, oxidizing solids, organic peroxides, and substances corrosive to metal. The 10 classes of health hazards include: acute toxicity, skin corrosion and irritation, serious eye damage or eye irritation, respiratory or skin sensitization, germ cell mutagenicity, carcinogenicity, reproductive toxicology, specific target organ toxicity from a single exposure, specific target organ toxicity from repeated exposures, and aspiration.

8.41.4 Container Labels

Container labels will provide information on the relevant hazard classifications of the chemical. As part of the Global Harmonizing System, chemical manufacturers and importers are required to provide a label that includes a pictogram, signal word, hazard statements, and precautionary statements for each hazard class and category. Your specific chemical training, as well as your company's written plan, will include an explanation of the pictograms associated with the chemicals in your work environment. This knowledge helps workers quickly identify a chemical's hazards and is the first step to taking proper precautions to work safely. Pictograms are

standardized graphics, sometimes called harmonized hazard symbols, which are assigned to a specific hazard class or category. Pictograms on a GHS label may convey health, physical or environmental hazard information. Each pictogram is assigned to only one class of hazard. A pictogram will represent either a physical hazard, health hazard or environmental hazard. Keep in mind that there is not a unique pictogram for each individual hazard within each class. In other words, one pictogram may be used to represent several hazards within a class.

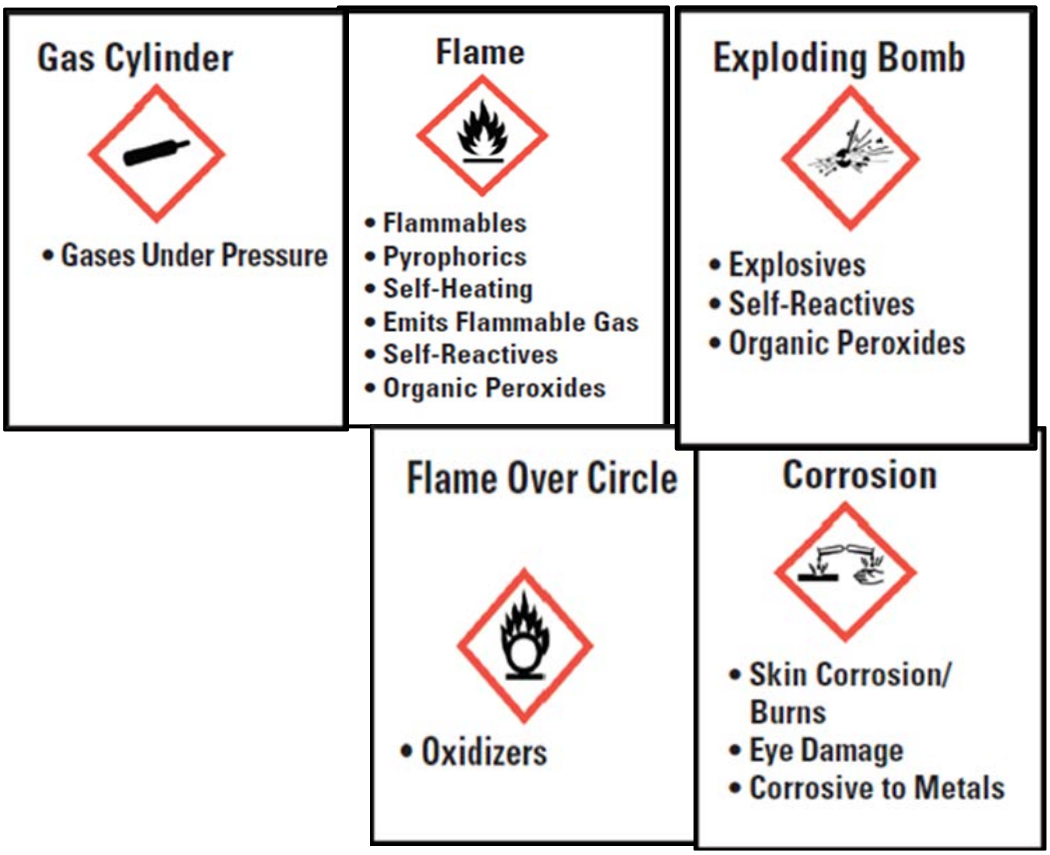
Figure 8-7 Container Label Example



8.41.5 Physical Hazard Pictograms

There are five pictograms displayed on GHS labels to represent physical hazards of a chemical. The exploding bomb pictogram is used to signify a material as explosive, unstable explosive organic peroxide, or a self-reactive substance or mixture. The flame pictogram is used for flammable gases, liquids, solids and aerosols as well as self-reactive substances. It may also indicate a material is an organic peroxide, pyrophoric liquid or solid, a self-heating substance or mixture or emits flammable gases when it makes contact with water. The flame over circle, or oxidizer pictogram, appears on a label when a chemical is an oxidizing gas, liquid or solid. The gas cylinder pictogram is exhibited when a substance is a compressed, liquefied, refrigerated liquefied or dissolved gas. The corrosion pictogram indicates a material is corrosive to metal.

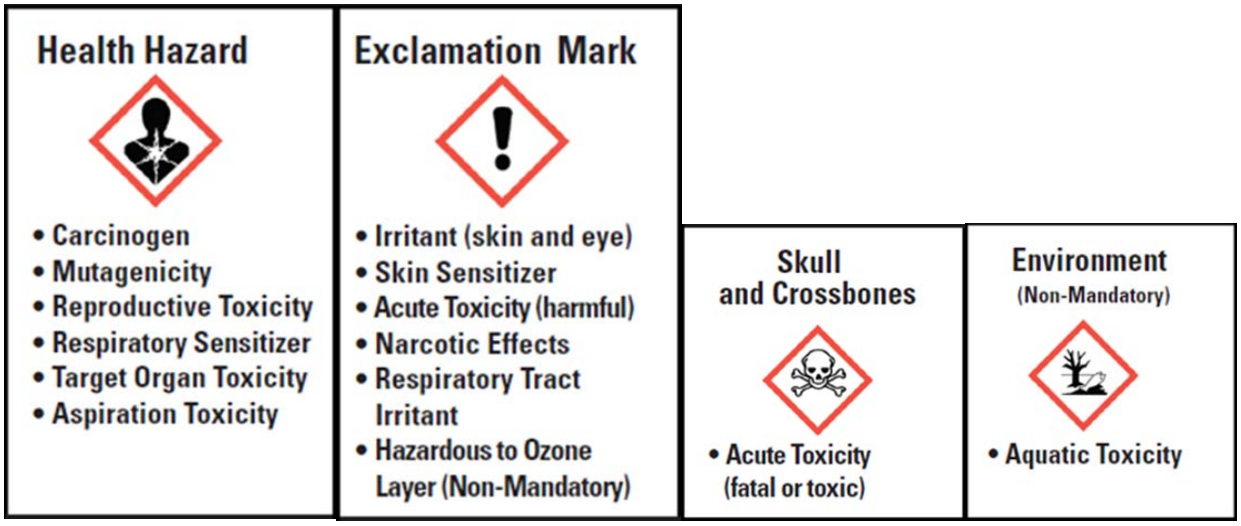
Figure 8-8 Corrosion Pictogram



8.41.6 Health Hazard & Environmental Pictograms

There are four pictograms displayed on GHS labels to represent health hazards of a chemical. The corrosion pictogram is used to denote the health hazards of skin corrosion and serious eye damage. The skull and crossbones are used when a chemical is acutely toxic to the skin, lungs or digestive system. The health hazard pictogram, sometimes called the chronic health hazard pictogram, denotes respiratory sensitization, cell mutagenicity, carcinogenicity, reproductive toxicity or an aspiration hazard. It is also used when a substance can cause specific target organ toxicity following a single or repeated exposure. The exclamation point pictogram is used for the health hazards of acute toxicity, skin irritation, eye irritation, skin sensitization and specific target organ toxicity following a single exposure in the form of narcotic effects or a respiratory tract infection. The environmental hazard pictogram is used when a substance poses acute or chronic hazards to the aquatic environment.

Figure 8-9 Environmental Hazard Pictogram



8.41.7 Signal Words

There are two signal words that appear on GHS container labels. The words "Danger" or "Warning" are used to emphasize hazards and indicate the relative level of severity of the hazard. "Danger" represents a more severe hazard than the signal word "Warning". Only one signal word, corresponding to the class of the most severe hazard, should be used on a chemical label.

DANGER or WARNING

The Signal Word (“Warning” or “Danger”) is determined by the level of risk for each chemical on each hazard.

For example, if a chemical is labeled as a Health Hazard and the hazard statement indicates that it is a carcinogen…

“Warning” means the substance “is suspected of causing cancer”

“Danger” means the substance “may cause cancer” (in other words, there is more scientific evidence that the chemical will cause an increased risk of cancer if used improperly).

8.41.8 Hazard & Precautionary Statements

Other standardized communication elements found on GHS container labels are Hazard Statements and Precautionary Statements. For products which pose more than one risk, an appropriate hazard statement for each GHS hazard will be included on the chemical label. Hazard Statements are standard phrases assigned to a hazard class and category that concisely describe the nature of the hazard. Precautionary Statements are standardized explanations of the measures to be taken to minimize or prevent adverse effects. There are four types of precautionary statements for each hazard class: prevention, response, storage and disposal.

- Examples of **"Prevention"** precautionary statements include "Do not allow contact with water" and "Wear protective gloves."
- Examples of "**Response**" precautionary statements include "If on skin wash with plenty of water" and "If inhaled remove person to fresh air."
- Examples of "**Storage**" precautionary statements include "Store in well ventilated place" and "Protect from sunlight."
- "**Disposal**" precautionary statements typically state to "Dispose in accordance to local regulations".

8.41.9 Safety Data Sheets

As part of the Global Harmonized System, Material Safety Data Sheets or MSDS are now called "Safety Data Sheets" and have a uniform 16 section format that allows employees to obtain concise, relevant and accurate information more easily:

Section 1: Identification of the substance or mixture and of the supplier. Includes GHS product identifier, recommended use and restrictions on use, supplier's details, and emergency phone number.

Section 2: Hazards identification. Includes GHS classification, GHS label elements, and other hazards not resulting in classification or not covered by GHS.

Section 3: Composition/information on ingredients. Includes information on chemical ingredients such as chemical identity and concentrations.

Section 4: First aid measures. Includes description of necessary measures, most important symptoms/effects, and indication of immediate medical attention and special treatment needed.

Section 5: Firefighting measures. Includes suitable extinguishing techniques, specific hazards from fire, and special protective equipment and precautions for firefighters.

Section 6: Accidental release measures. Includes precautions, protective equipment, emergency procedures, environmental precautions, and methods for containment and cleanup.

Section 7: Handling and storage. Includes precautions for safe handling, and conditions for safe storage, including any incompatibilities.

Section 8: Exposure controls/personal protection. Includes occupational exposure limits or biological exposure limits, appropriate engineering controls, and personal protective equipment (PPE).

Section 9: Physical and chemical properties. Includes the chemical's characteristics (appearance, odor, pH, flash point, vapor pressure, etc.).

Section 10: Stability and reactivity. Includes reactivity, chemical stability, possible hazardous reactions, conditions to avoid, incompatible materials, and hazardous decomposition products.

Section 11: Toxicological information. Includes routes of exposure, related symptoms, acute and chronic effects, and numerical measures of toxicity.

Section 12: Ecological information. Includes Eco toxicity, persistence and degradability, bio accumulative potential, mobility in soil, and other adverse effects.

Section 13: Disposal considerations. Includes description of waste residues, and information on their safe handling and methods of disposal.

Section 14: Transport information. Includes UN number, UN proper shipping name, transport hazard classes, packing group, environmental hazards, transport in bulk, and special precautions.

Section 15: Regulatory information. Includes safety, health and environmental regulations specific for the product in question.

Section 16: Other information. Includes information on the preparation and revision of the SDS.

8.41.10 Training

The RRP Safety Department is responsible for providing information and training for all employees regarding their potential exposure to hazardous chemicals or materials while working on RRP project. This information is to be provided at the time the new Team Member is hired via the New Hire Orientation Program, and whenever a new chemical or material hazard is introduced into their work area.
Common products are to be reviewed as part of the Daily Work Activity Planning process, and periodically throughout the year at TEAM and Project meetings as applicable. All employees shall be informed of the following:

General Information

- The basic requirements of the hazard communication standard.
- Any operations in the work area where hazardous materials or chemicals are present or used as part of the construction process.
- Location and availability of our written Hazard Communication program and SDSs.
- Location and availability of any hazardous chemical/material lists or other data. Simply stated, how to obtain and use appropriate hazard information.
- Methods and observations that may be used to detect the presence, release or exposure to a hazardous chemical or material in the work area. Examples of these activities include:
  - Periodic monitoring conducted by the Company.
  - Continuous monitoring devices.
  - Visual appearance.
  - Odors of hazardous chemicals or materials.
  - Expectations based on the material, conditions, process or use.
- The physical and health hazards of the chemical or material in the work area.
- Name(s) of project personnel to contact for questions or to give or receive additional information.
- The measures employees can take to protect themselves, including:
  - Follow specific procedures implemented by the Company.
  - Appropriate work practices.
  - Emergency procedures.
  - Use of appropriate personal protective equipment.

- Follow specific procedures or practices as recommended by the manufacturer or supplier.
- Conduct a comparison of SDS and product labels to ensure that information is consistent.

8.42 Visitor Safety

Those persons who only occasionally need to access construction or work zones are considered visitors. Before visitors are allowed to access the construction site or work zones they must: (see Appendix#5)

- Have, or be provided, the required personal protective equipment
- Be given an explanation of the current activities, the hazards associated with those activities and the methods to be used to prevent the visitor(s) from being harmed by those activities.
- Be given an explanation of the emergency procedures
- Be given an explanation of the RTD form *Visitors General Release - Waiver Of Liability and Assumption of Risk*. Visitors must sign the Visitor General Release form before being allowed to access the construction site or work zone. The original Visitor General Release form must be maintained with the project records of the contractor responsible for the site. A copy of signed Visitor General Release forms must be submitted to the RRP Construction Safety Manager on a monthly basis.
- Sign in and out of the site access log, if applicable
- Be escorted at all times while on site.

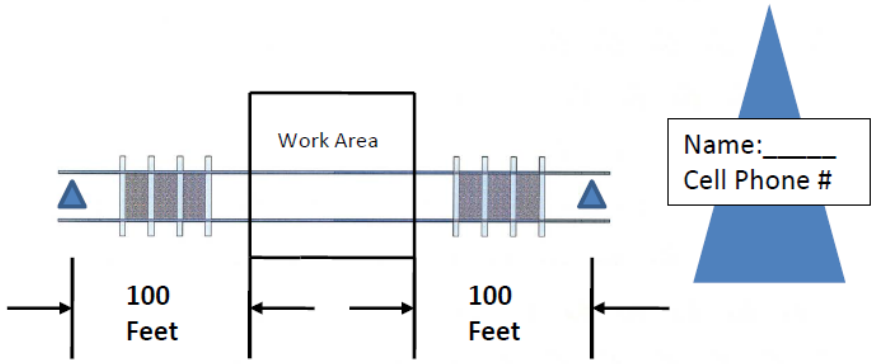
8.43 On-Track Equipment Safety

When on track equipment is used or when crews are working in conjunction or adjacent to on track equipment the following safety procedure should be used to protect personnel and equipment from unanticipated equipment movement.

8.43.1 Blue (or designated color) Cone Safety Zone

Approximately 100 foot (or whatever greater distance may be needed) from the end of work zone, blue cones will be set in the middle of the track being worked on in both directions. *These cones will have the name of the employee in charge (Superintendent or Foreman) on them.* ***These cones can only be removed or passed by with direction of the employee in charge (Superintendent or Foreman)*** *A cell phone number must be on the blue cones.*

Figure 8-10 Example of Blue Cone Safety Zone



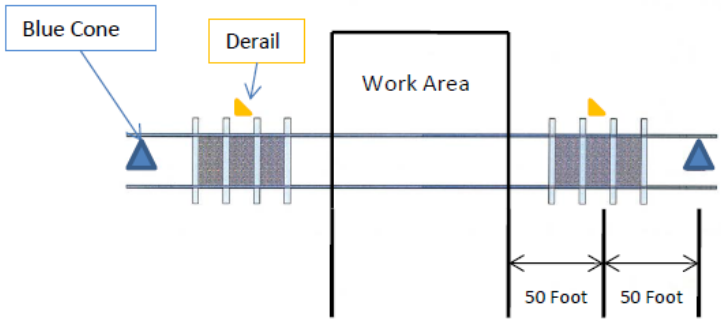
8.43.2 De-rail Device:

Approximately 50 foot from work zone (or whatever greater distance may be needed) a derail will be installed. They will be installed as to prevent runaways into or out of the work areas from high-sides of the grade or Operators not paying attention. In most cases a derail will be needed at both ends of zone if the potential exists for runaway equipment coming into or out of your work area. They do not need to be placed if equipment does not have the potential to run away (equipment can ground itself). Care needs to be taken when placing the derails as not to place them where the equipment could cause an even more unsafe condition by derailing into a pole or off of a bridge etc. ***These derails can only be removed or passed by with direction of employee in charge (Superintendent or Foreman).***

WHEN WORK IS COMPLETED OR AREA HELD OVER

- **Cones and derails must be removed in work areas every night and/or at the conclusion of work activities. If equipment is left in the work area for some reasoning, then the blue cones and derails must remain on track.**
- **Equipment left or stored on track must be properly left in a manner addresses in the Hazard Analysis and approved by Track Superintendent. If equipment cannot be grounded then blue cones and derails must be used.**

Figure 8-11 Example of Derail Placement



9.0 EMERGENCY RESPONSE PROCEDURES

The following Emergency Action Plan, or similar, must be posted on site or maintained in your on-site vehicle.

Image of RRP Emergency Action Plan, Page 1 of 2

XI. EMERGENCY ACTION PLAN

The following Emergency Action Plan, or similar, must be posted on site or maintained in your on-site vehicle.

EMERGENCY ACTION PLAN – RRP
Rev 0

INSTRUCTIONS: The following *Emergency Action Plan* must be posted on site or maintained in an easily and quickly accessible location such as in your on-site vehicle.

IF SERIOUS OR LIFE THREATENING INJURY: CALL 911

Fire Dept. Non-Emergency **1-720-913-2400**

1. Soon after situation is stabilized, report injury to RRP Safety

   Tony Bale, RRP Safety Manager – Cell: 720-370-0917

2. If no answer, LEAVE A DETAILED MESSAGE and call the next person. Keep calling until you speak with someone or you have left 3 messages.

IF LESS SERIOUS, NON-LIFE THREATENING INJURY:

1. Provide first aid to employee as needed
2. Before transporting injured employee to medical facility, report injury to RRP Safety
3. Transport injured employee to OCIP medical facility designated in Medical Authorization
4. Report employer as **"RTD Fastracks North Metro Rail Line Project"**
5. Complete the *Initial Incident Reporting Form* and give to RRP Safety by the end of the shift.

If property damage (GL), builder's risk or pollution liability incident:

1. As soon as possible after situation is stabilized, report incident to RRP Safety

EVACUATION PROCEDURE:

If you need to evacuate the work site, go **200 feet North or West** along the ROW and assemble at a conspicuous landmark (tree, building, sign post, etc.) If it is safer, the **alternate assembly** point is to go **200 feet South or East** and assemble at a conspicuous landmark.

LIGHTNING SAFETY:

If there are lightning strikes in our area and the storm appears to be heading our way, place the site equipment and personnel into a safe condition and wait for the storm to pass.

MAP TO OCIP MEDICAL FACILITIES ON REVERSE SIDE

9.1 Owner Controlled Insurance Program (OCIP) Designated Clinics

Colorado Workers Compensation Statutes allow the OCIP provider to designate two medical providers. The designated providers must be used at all times, other than in an emergency. In case of emergency, injured worker should be taken to an emergency facility, and report made to the Designated Provider preferred by the employee within 48 hours. Follow up medical care will be provided by the Designated Provider as appropriate.

9.2 Evacuation Assembly Areas

In the event that there is a need to evacuate, site supervision will communicate the alarm to other affected supervisors via cellphone or other applicable means.

Each individual is responsible for removing themselves from perceived danger and for gathering at a specified assembly area. Each individual must remain in the assembly area until they have been accounted for and given further instructions.

9.3 Responding to Injury (WC) and Property Damage (GL) Incidents

Outlined below are flow charts that detail the proper method for notifying stakeholders in the event of an injury incident or a property damage incident. The flowcharts are titled:

- INJURY (WC) INCIDENT OCCURS
- PROPERTY DAMAGE (GL) INCIDENT OCCURS

Figure 9-1 Injury (WC) Incident Occurs

INJURY (WC) INCIDENT OCCURS

If SERIOUS or LIFE THREATENING injury:
CALL 911

While waiting for the ambulance, **call RRP Safety:**
Follow **NOTIFICATION OF INJURY** BELOW

RRP Safety calls Brian Rome(RTD):
Follow **NOTIFICATION OF INJURY** below

If LESS SERIOUS, NON-LIFE THREATENING injury:

- Provide first aid to employee as needed
- **WAIT** – Before transporting injured employee to medical facility, call RRP Safety Manager RRP safety will call Brian Rome RTD North Metro Rail Line/CRMF Safety Manager to obtain Medical Authorization
- Transport injured employee to medical facility designated in Medical Authorization
- If RTD North Metro Rail Line/CRMF Safety Manager cannot be contacted, RRP Safety will direct employee to be transported to medical facility identified in Emergency Action Plan

NOTIFICATION OF INJURY:

1. **As soon as possible (ASAP) call RRP Safety**
   Tony Bale, RRP Safety Manager – Cell 720-636-6622 or Direct office 720-370-0917

   ***Calling Protocol**: if there is no answer before message request engages, hang up, call again right away. If still no answer on 2nd call LEAVE A MESSAGE. If we get two phone calls one right after the other, we consider that a signal of an important phone call. It's okay to leave 2 messages.*

2. **ASAP RRP Safety will Call Brian Rome, RTD North Metro Rail Line/CRMF Safety Manager** to report injury:
   Brian cell: 303-910-1970; email: brian.rome@rtd-denver.com

   Follow Calling Protocol above

3. **ASAP RRP Safety send email to RRP Incident Notification Distribution List:** Include:
   Subject: INCIDENT NOTIFICATION – INJURY
   Start with the words: INJURY INCIDENT
   Briefly describe incident: Nature of injury, location of incident, contractor affected, immediate response actions
   Example: INJURY INCIDENT. RRP worker cut leg while operating jack hammer. Worker taken to hospital via ambulance.

4. **ASAP** if Injury occurred on RR ROW, **RRP Safety will notify affected RRs.**
   UPRR LHF (C.Styvar): 402-203-8732 **BNSF:** Jack Moy Office: 303-480-6584 cell: 720-879-7467
5. **Within 24 Hours, RRP Safety will:**
   Complete the *initial Incident Reporting Form*
   Complete the *Colorado First Report of Injury*
   File WC claim with Zurich by phone 877-997-8343 (99RTDHELP)
   Completed forms will be sent to Trish Parker by RRP Safety
6. **Within 5 days** complete and submit to RRP Construction Safety Manager the Root Cause Incident Investigation Report. Copy of Report sent to RTD (Brian Rome)

Figure 9-2 Property Damage (GL) Incident Occurs

PROPERTY DAMAGE (GL) INCIDENT OCCURS

NOTIFICATION OF PROERTY DAMAGE (GL), BUILDERS RISK or POLLUTION LIABILITY INCIDENT:

1. As soon as possible after situation is stabilized call RRP Safety
   Tony Bale, RRP Safety Manager – Cell 720-370-0917

   Calling Protocol: *if there is no answer before message request engages, hang up, call again right away. If still no answer on 2nd call LEAVE A MESSAGE. If we get two phone calls one right after the other, we consider that a signal of an important phone call. It's okay to leave 2 messages.*

2. **ASAP RRP** Safety will call Greg Aeberli and Brian Rome and report incident:
   Greg's office: 303-299-2344; fax: 303-299-2029; email: greg.aeberli@rtd-denver.com
   Brian cell: 303-910-1970; email: brian.rome@rtd-denver.com
3. **ASAP RRP Safety send email to RRP Incident Notification Distribution List:** Include:

Subject:	INCIDENT NOTIFICATION – NO INJURY
Start with the words:	NO INJURIES
Briefly describe incident:	Nature of incident, location of incident, contractor affected, immediate response actions

   Example: NO INJURIES. XYZ contractor backed truck into and knocked down neighboring business' fencing. Business Mgr. notified and temporary fencing to be built by COB.

4. **ASAP** if Injury occurred on RR ROW, **RRP Safety will notify affected RRs.**
   UPRR LHF (C.Styvar): 402-203-8732 **BNSF:** Jack Moy Office: 303-480-6584 cell: 720-879-7467

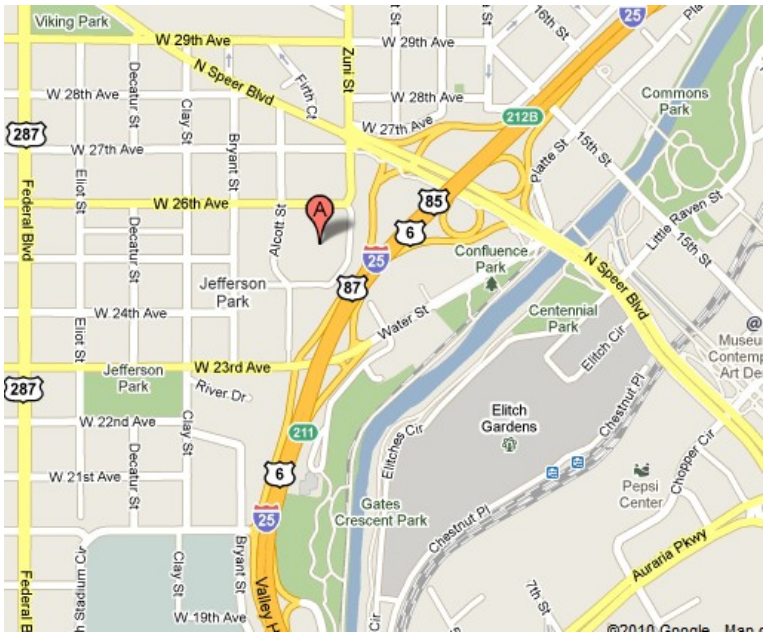
5. **Within 24 Hours, RRP Safety will:**
   Complete the *FasTracks General Liability Incident Claim Form*
   Claim with Zurich filed by RTD
   RRF Safety will send completed form to Greg Aeberli and Trish Parker

6. **Within 5 days** complete and submit to RRP Construction Safety Manager the Root Cause Incident Investigation Report. (form and info available upon request). Copy of Report sent to RTD (Trish Parker and Greg Aeberli).

9.4 Designated Medical Providers

Midtown Occupational Health Services

Midtown Occupational Health Services (see map below)
2420 W. 26th Ave., Bldg. D, Suite 200 Denver, CO 80211
Phone: 303-831-9393
Fax: 303-831-6335
Hours: 7:00 am to 6:00 pm, Mon – Fri



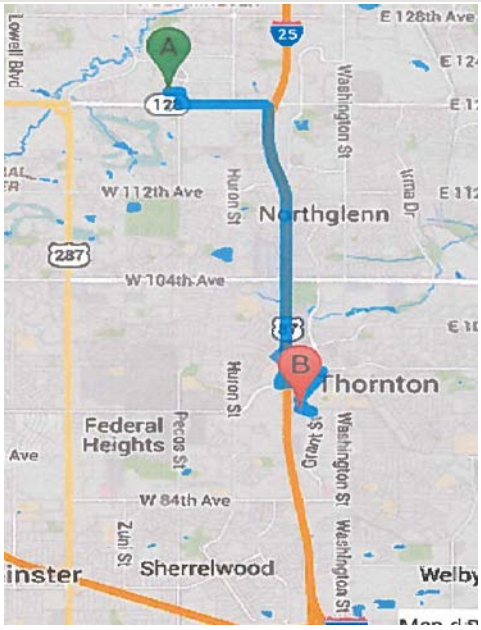
- ***HEALTH ONE - OCCUPATIONAL SAFETY & HEALTH***

9195 Grant St, Ste 100
Thornton, CO 80229

Directions from RRP Office

1. Head east on W 121st Ave toward N Pecos St 0.1 mi
2. Take the 1st right onto N Pecos St 0.1 mi
3. Take the 1st left onto W 120th Ave 0.8 mi
4. Turn right to merge onto I-25 S 3.0 mi
5. Take exit 220 for Thornton Pkwy 0.2 mi
6. Turn left onto Thornton Pkwy 0.4 mi
7. Turn right onto Grant St 0.6 mi
8. Turn right onto Eppinger Blvd 377 ft
9. Continue straight 207 ft
10. Turn left

Destination will be on the left 144 ft



Multiple Medical Care Locations have been established. Consult with current Team Book and or RRP Safety Management for additional medical care locations.

Return to Work

It is the intent of RTD and RRP that every worker that becomes injured to be able to return the injured party to work as quickly as possible following an injury. RRP and all project Subcontractors will make all reasonable accommodations to meet any duty restrictions and/or modifications that are assessed as part of an injury care plan.

In addition RRP will follow the Formal Modified Duty Process as stated by The Colorado Workers Compensation Act. (See Appendix #9) for reference to this procedure)

Consistent with medical advice, employers are required to assist employees to remain in the workplace or to return to work as soon as possible if injured or ill. This requirement applies equally to work-related and non-work-related injuries and illnesses.

Specifically, the requirements usually include, but are not limited to, the following:

- Consistent with medical advice, actions to assist employees to stay at or return to work are taken as soon as possible.
- A written release to return to work (see *Return-to-Work Notice Form*, or similar) must be obtained, and supervision or management immediately notified.
- Provided it is safe and practicable to do so, injured or ill employees will be returned to work in the shortest possible time.
- If this is not possible, the employee will be returned to suitable alternative or selected duties that do not jeopardize their well-being or the well-being of others.
- The Project Management and/or the Safety Construction Manager will serve as a liaison officer in all rehabilitation cases.

10.0 INCIDENT INVESTIGATION & REPORTING

10.1 Statement of Incident Analysis and Reporting

RRP requires that all incidents be reported immediately to a responsible supervisor or manager, so that root causes and corrective action to prevent reoccurrence may be identified and implemented. Incident reporting is not a means of placing blame, but rather an investigative tool to assist in identifying, trending and ultimately eliminating workplace hazards. Furthermore, incident analysis when properly performed provides the following results:

- It allows for improvements in loss prevention, which in turn reduces the number and degree of occupational injuries and illness, resulting in less human suffering and financial losses.

- Accurate reporting, investigating and recording incidents and near-miss situations and their causes, allows steps to be taken to remove the cause(s) and eliminate future incidents, thus making every RRP operation safer. Furthermore, other projects can benefit from the knowledge gained when information is shared.

- It leads the way to safer projects and fewer incidents, which reduces the cost of worker's compensation, general liability insurance, auto insurance and equipment insurance.
- It gives management the necessary tools to effectively educate employees in hazard recognition and avoidance.
- It provides data that is needed to prepare reports required by owner, local and state and federal regulatory agencies.

10.2 Responsibilities

Project Managers and Engineers

Project Managers and Engineers are to provide the grass roots leadership to establish the climate necessary to ensure that every incident is analyzed and that results are communicated effectively to sustain a "Zero Incidents" culture on the project. Specifically, Project Managers and Engineers are responsible and accountable for executing the guidelines outlined in this program.

Superintendents and Foreman

Superintendents and Foreman are to assist the Project Manager or Engineer in securing incident scenes and preventing further harm or damages. The Superintendent or Foreman will exercise his/her authority in correcting any unsafe act or condition, including stopping work in progress if necessary. Additionally, these employees will assist the Project Manager or Engineer in all aspects of incident analysis to include but not limited to the preparation and collection of applicable forms and witness statements and the timely reporting of all incidents to the corporate office.

Safety

The Safety Department is tasked with the responsibility for implementing the Incident Analysis and Reporting Program as well as directing the company's Medical Case Management Program. They will assist in the communication and maintenance of all documentation associated with project incidents.

Employees

Employees are to follow the direction of their supervisors and immediately report all incidents, injury or otherwise, to their respective supervisors.

10.3 Incident Response Procedures

10.3.1 General Incident Guidelines

- RRP and subcontractor supervisors must be familiar with the notification requirements of this section and notify the appropriate persons, as required.
- Secure the scene and use tools, equipment and manpower available to render the scene safe and free from further damage or harm to employee and members of the traveling public.

- Provide for necessary support equipment to assist in emergency management, and provide an escort for emergency vehicles.
- Gather witness statements immediately from everyone in the area, even persons who did not necessarily "eye-witness" the event.
- Assist the RRP Safety Department in the analysis process. The RRP Safety Department will supervise the collection of information and analysis process.
- Make no statements to anyone outside of RRP. Direct all inquiries from outside parties to the appropriate personnel, in accordance with the RRP Crisis Management Program.
- The RRP Safety Manager or their designee will direct the treatment of injured employees in accordance with the RRP and RTD Medical Case Management Program.

Treating an Injured Person

The injured person must be cared for first. Immediate first aid, transportation or professional medical treatment must be provided. If necessary, stabilize the injured person and call for help.

Note that if the injured employee needs professional medical help, a member of the RRP Safety Department or management shall accompany the injured employee(s) to the treatment facility. "Management personnel" consist of one or more of the following; Project Manager, Project Engineer, Superintendent, Foreman, or Safety Representative if on site.

Control & Secure the Incident Scene

Secure the area for thorough analysis. Work shall not continue in the area involved in the incident until cause has been identified and corrective action to prevent reoccurrence has been taken.

Initial Notification of the Safety Department

Immediately notify the RRP Safety Manager and/or his/her designee of any incident and providing them with the following information:

a. Name
b. Date of Incident
c. Description of Incident
d. Description of Injury/Illness Location and Type
e. Clinic/Hospital Name and Phone Number
f. Job Name and Number
g. PPE used

This information can be completed on the RRP "Grab and Go" Incident Form (See Appendix #7). For your assistance the following contact numbers have been provided. For all personal injury or illness incidents, an Authorization for Medical Treatment Form shall be completed, signed by the

employee and supervisor, and taken with the injured or ill to the doctor. NOTE- see also attached Flow Chart with instructions. Again, the above listed locations are the facilities to be used for NON-LIFE THREATENING INJURIES.

Also, this form functions as a doctor's work release. It is necessary that it be completed by the doctor and returned with the employee after medical treatment.

Drug Testing

Drug and alcohol testing is required for any incident requiring medical treatment and/or results in damage to property, vehicles, or equipment.

Incident Analysis

A formal Incident Analysis Report is required for:

a. All injuries or illness
b. All Auto, Equipment and Property incidents of loss
c. All incidents involving a third party (e.g) the public or other employer's employees injured on our site or in our office.
d. Near-Miss Incidents with High Severity

The initial analysis shall be conducted by the Project Manager or Area Superintendent who monitors the work where the incident occurred. If appropriate, the Foreman should also be involved in the process. Safety personnel are tasked with supporting this structure, and not necessarily conducting and documenting the analysis process.

As a general rule of thumb, the analysis process should begin as soon after the incident as possible. The results of this initial investigation should be recorded on the First Report of Incident Form. It is the responsibility of the Area Project Manager and/or Superintendent to ensure that the report is completed in its entirety.

Please note that when describing how the incident occurred, any statement of such should be prefaced by, "The employee alleges" or "The employee indicated" followed by a description or narrative of the alleged incident. The purpose of this is not to deny the occurrence of the incident, but to avoid placing RRP in a position of having made a definite statement of fact without necessarily having all the pertinent information.

Once the RRP "Grab and Go" Incident Form has been completed, the Area Project Manager and/or Superintendent shall review it with the Safety Manager to ensure completeness. After which, the Area Project Manager and/or Superintendent will be responsible for ensuring that the Foreman in charge of the work presents the findings and discusses the root cause and corrective actions to prevent reoccurrence at the next TEAM meeting. The intention of this process is to avoid the possibility of a similar incident being repeated.

Once this has been completed, the final report will be forwarded onto the RRP Safety Manager. Please note that it is the Area Project Manager's responsibility to ensure the following have occurred:

- All necessary signatures have been obtained
- Necessary documentation attached: pictures, witness statements, police reports (if available) etc.

- Involvement of Senior Management

  The following procedure shall be followed to report incidents to Senior Management. This procedure is in addition to the initial Notification to the Safety Office and completion of the First Report of Incident Form outlined above.

  a. All OSHA Recordable Injury, Automobile, Equipment and General Liability (third party) and Property incidents are to be reported to the Project Manager by the Safety Manager. Upon receipt of the First Report of Incident Form, the Project Manager with the assistance of the Safety Manager will meet with all involved parties to discuss the root cause(s) and contributing factors of the incident and identify corrective actions to prevent reoccurrences.

  b. All Lost Time Accidents (LTA) will be immediately investigated by a LTA Incident Analysis Team comprised of the Safety Manager, Area Project Manager, Project Engineer, Superintendent, Foreman and all other involved parties.

     Once the LTA Incident Analysis Team has completed their analysis, a formal document will be generated and a meeting between LTA Incident Analysis Team and the Project Director will be scheduled to review the incident. During the review process, root causes, contributing factors and corrective action to prevent reoccurrence will be discussed and any necessary corrective actions taken.

10.4 Subcontractors reporting requirements

Subcontractor supervisors are required to report all incidents and near-misses to the RRP Project Manager, Project Safety Manager or Engineer in charge of their work immediately. Subcontractor supervisors must follow the same procedures as described above.

11.0 MONITORING & MEASURING

11.1 Safety Continuous Improvement

The RRP Safety Team and the project management will perform regular inspections and Bi-weekly (every other week) formal inspections. Safety hazards identified during the periodic inspections will be documented along with immediate measures taken and corrective actions to be implemented. This will be done on the RRP Hazard Elimination Form and or the RRP Daily Safety Inspection Report. (See appendix #11)

Construction contractors working in separate work areas removed from RRP's own construction activities

are also required to perform daily safety inspections. Construction contractors may use their own form or may use RRP's Daily Safety Inspection Report.

RTD may notify RRP, either verbally followed by written notification, or in writing, to suspend, delay or stop work in the event of a serious noncompliance with applicable safety codes or regulations. RTD may also notify RRP verbally followed by written notification, of any noncompliance with any safety or security codes or regulations and the need for corrective action.

When either type of RTD notification occurs, RRP will take immediately and appropriate measures to mitigate the hazard up to and including the immediate stopping of work. After the hazard is mitigated, RRP Safety Team will investigate the causes of the hazard and develop corrective actions.

11.2 OSHA Inspections

If an OSHA compliance officer requests to inspect our work site, ask the OSHA compliance officer to wait while you prepare for the inspection. OSHA compliance officers are usually willing to wait a reasonable amount of time, up to two hours in some cases, for the Construction Safety Manager to arrive.

Contact RRP Construction Safety **IMMEDIATELY**. (Tony Bale 720-636-6622).

Backup Contact : Bill Olsen (720) 840-4044

- Obtain a camera or be prepared to use the camera on your phone
- Obtain a copy of RRP's Construction Safety & Security Manual, Hazard Communication Program, and a copy of the OSHA 300 Recordkeeping Log
- Obtain a copy of RRP's OSHA Inspection Checklist form
- OSHA inspectors, called compliance safety and health officers (CSHO), are experienced, well- trained industrial hygienists and safety professionals whose goal is to assure compliance with OSHA requirements and help employers and workers reduce on-the-job hazards and prevent injuries, illnesses and deaths in the workplace. Normally, OSHA conducts inspections without advance notice.

11.3 Managing an OSHA Inspection

RRP has developed an OSHA Inspection Checklist to be completed during an OSHA Inspection. RRP supervisors must use the Checklist during the inspection to document its progress, all conversations, actions and results.

The OSHA CSHO may decide to have a closed-door conversation with employees. A typical inspection follows this format:

11.3.1 Inspectors Credentials

Every CSHO is required to carry his/her official U.S. Department of Labor credentials. Upon arrival at the jobsite, the CSHO will need to present his/her credentials. If the CSHO does not present credentials, the supervisor in charge should ask to see them. At this time the supervisor should make note of the CSHO's name and serial number.

The supervisor should then ask the CSHO to wait a moment while he/she contacts Construction Safety.

11.3.2 Opening Conference

During the opening conference the CSHO will give RRP Supervisor(s), an explanation of the scope and purpose for the inspection. If the inspection was generated by an employee complaint, the CSHO will need to give the Supervisor a copy of the complaint (with the employee's name withheld, if the employee requested anonymity).

Prior to starting the inspection, the RRP Supervisor will be asked to identify the craft personnel representative, such as a Union Steward, if there is one. This person will often times be asked by the CSHO to participate in the inspection. An employee could also be selected if an employee representative has not been designated. If an employee representative is not chosen, the CSHO must consult with a reasonable number of employees during the inspection. At this time all employees should be informed of their right to have a RRP Supervisor present during the conversation. It is the RRP Supervisor's responsibility to request that the CSHO inform all employees of this right, and ask employees if they choose to have RRP Supervisor present during questioning.

Following the opening conference and after representatives have been selected to accompany the CSHO, he/she will generally determine if the company is in compliance with OSHA posting and recordkeeping requirements. The CSHO will also request to see RRP's Construction Safety & Security Manual, Hazard Communication Program, and a copy of the OSHA 300 Recordkeeping Log. Next, CSHO will proceed through the jobsite, with the RRP, subcontractor, and employee representatives, to identify conditions and practices that could be hazardous to employees.

11.3.3 Actual Inspection

At a minimum, a RRP Construction Manager or Safety Manager Representative will escort the CSHO during the inspection. Prior to conducting the inspection, the RRP Supervisor should contact Construction Safety so that they too can participate in the inspection. CSHOs are usually willing to wait a reasonable amount of time, up to two hours in some cases, for the Construction Safety Manager to arrive.

The CSHO will point out any unsafe or unhealthful working conditions observed. At this time, the CSHO should also discuss possible corrective actions to be taken to eliminate noted hazards. Whenever possible, hazards should be corrected immediately. When action is taken to correct hazards on the spot, the CSHO will record such corrections to help determine RRP's good faith efforts in compliance. Note that even when corrected immediately, the violations may still serve as a basis for a citation.

During the inspection, the CSHO may pause to consult with employees about safety and health conditions and practices at the jobsite. Remember, employees are protected, under the OSHA Act, from discrimination for exercising their safety and health rights (including private discussions with the CSHO). Employees do have a right to request a RRP Construction Management or Safety Representative present during their conversation with the CSHO. While talking with employees, the CSHO is required to make every effort to minimize their interruptions of the normal flow of the work operations.

Throughout the inspection, the RRP Construction Management and/or Safety Manager should take notes identifying:

The areas inspected Machinery, equipment, and materials examined Operations observed, and Persons interviewed.

During the inspection, the CSHO will likely take pictures of what he/she considers to be hazardous conditions or practices. The RRP Construction Management and/or Safety Manager should also take their own similar, duplicate pictures of the operations, being sure to take additional pictures from different angles than those taken by the CSHO. Remember that a picture is worth a thousand words and could prove to be a valuable piece of evidence at a hearing or review proceeding.

While touring the jobsite with the CSHO, all RRP employees should answer questions truthfully. The RRP Construction Management and Safety Manager should explain and clarify situations that the CSHO may not understand or misinterpret. However, be careful not to volunteer unnecessary information.

11.3.4 Video Taping

The CSHO will usually take video footage of the site for future reference and consultation with the OSHA Area Director. With this in mind, RRP Management should:

Be aware that video cameras record not only pictures but also sound. Questions by CSHO and the answers provided by RRP employees will be recorded on the videotape. Note that the CSHO is required to give notice that he/she will be taping not only the work but also what the individual says.

Employees should not be asked to stage or reenact alleged violations.

11.3.5 Closing Conference

After touring the jobsite, a closing conference will be held to discuss the hazards identified by the CSHO and RRP's rights and responsibilities. This is the time to discuss any hazards and possible citations. Furthermore this is the time to provide information or produce documentation that shows RRP's good faith effort toward 100% compliance.

The CSHO does not have the authority to specify penalties during the closing conference. After the CSHO reports his/her findings to the OSHA Area Director, the Director will determine if citations will be issued and if penalties will be proposed.

Citations

An OSHA representative will inform RRP of any alleged violations, and the time period for abatement of the noted hazards. Citations and Notification of Penalty will be received by certified mail. RRP is then required by law to post a copy of the citation at or near the place a violation occurred, for 3 days or until the violation is corrected, whichever is longer. Even if RRP decides to contest the citation, it must still be posted.

OSHA must issue a citation and proposed penalty within six months of the violation's occurrence.

12.0 CLIENT SPECIFIC REQUIREMENTS

12.1 RTD Construction Safety Guidelines

In addition to the requirements detailed in this document, work conducted shall be in accord with the RTD Construction Safety Guidelines which are incorporated by reference.

(See Appendix #16)

13.0 APPENDIX LIST

1. RTD North Metro Line Extension OCIP Manual
2. RRP E-Rail Safe and RWP Certification Website Instructions
3. RRP Sub-Contractor HSE Pre-Qualification Form
4. RRP Sub-Contractor HSE Pre-Qualification Evaluation Form
5. RRP Visitor Orientation Checklist
6. RRP Hot Work Permit
7. RRP "Grab & Go" Incident Reporting Form
8. RRP Critical Lift Form
9. RRP Return to Work Form
10. RRP Respirator Use Form (Medical Evaluation)
11. RRP Site Inspection Form
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Appendix 1

RTD North Metro Line Extension OCIP Manual

October 1, 2014

RTD FasTracks

NORTH METRO Rail Line Extension

Project Insurance Manual

Owner Controlled Insurance Program

MARSH
1225 17th Street, Suite 2100
Denver, CO 80202

MMC Marsh & McLennan Companies

Contents

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Introduction

Welcome to this Controlled Insurance Program.

RTD FasTracks has arranged insurance for this construction project under an Owner Controlled Insurance Program (OCIP). An OCIP is a single insurance program that insures RTD FasTracks, General Contractor (TBD), enrolled contractors and enrolled subcontractors of any tier, along with their eligible employees and other designated parties for work performed at the project site. Certain parties and their employees are excluded from the OCIP as identified further in this manual.

This Manual is intended to provide general information as to the insurance afforded and/or required of enrolled parties, claims reporting, safety & loss control requirements, and the procedures to be followed in administering the program. **All questions concerning the OCIP requirements should be referred to the OCIP Administrator as indicated in Section 2, the Project Contact Directory.**

The OCIP for this project provides the following coverage for enrolled parties whose employees perform actual on-site labor at the project site.
This coverage includes:

- Workers' Compensation
- Employer's Liability
- General Liability
- Products/Completed Operations
- Excess Liability

Other lines of coverage provided by RTD FasTracks for the benefit of Contractors and Subcontractors performing work at the project site include:

- Builders' Risk coverage
- Contractor's Pollution Liability
- Railroad Protective Liability (when required by railroads)

RTD FasTracks will pay insurance premiums for the OCIP coverage described in this manual. It is recommended that you place your current insurer on notice that you are participating in an OCIP.

Enrolled Parties

General Contractor and Contractor(s) and Subcontractor(s) of any tier who perform operations on the Project site and such other persons or entities as RTD FasTracks may designate as enrolled parties, who perform direct labor at the project site or sites incidental to the Work. RTD FasTracks may elect to cover architects, engineers, and consultants if applicable. Temporary labor services and leasing companies are to be included as Subcontractor(s). General Contractor and Contractor(s) and Subcontractor(s) of any tier must have submitted all necessary enrollment forms and have been accepted into the OCIP as evidenced by a confirmation of enrollment letter and Proof of Insurance.

Participation in the OCIP is mandatory for ALL contractors and their subcontractors of any tier unless excluded by RTD FasTracks or as outlined later in this manual. **However, enrollment is not automatic.** Work will not be permitted at the project site until the contractor and subcontractor regardless of tier is ***properly*** enrolled in the OCIP. An enrolled contractor is one who has properly completed and submitted the necessary forms and other documents as described in this Project Insurance Manual. Upon acceptance of enrollment the contractor will receive confirmation of enrollment.

Excluded Parties

The following will be considered excluded from coverage under the OCIP, unless RTD FasTracks and the insurers specifically agree to include:

- Off-site fabricators
- Guard services, janitorial services
- Hard demolition and blasting
- Vendors suppliers (who do not perform or subcontract installation), material dealers, truckers (including trucking to the Project where delivery is the only scope of Work to be performed), and others whose sole function is to transport, pickup, deliver or carry materials, supplies, tools equipment, parts or other items to or from the project site, or who do not perform any actual on-site labor
- Asbestos abatement or other hazardous waste removal Contractor(s) and their respective Subcontractor(s) of any tier
- any other entity specifically determined by RTD FasTracks to be excluded

Coverage applies only to work performed at the project site by the enrolled parties. Enrolled parties must provide their own insurance for off-site activities including but not limited to work at their permanent shops, fabrication or manufacturing of building products, materials or supplies.

The provisions herein for the OCIP shall in no way be interpreted as relieving the enrolled parties of any responsibility under their contract. All enrolled parties will be required to carry certain other insurance as outlined later in this manual and may carry, at their own expense, any additional insurance they deem necessary.

This manual:

- Describes the general structure of the OCIP
- Identifies the responsibilities of the various parties involved in the project.
- Provides a basic description of OCIP coverage

- Describes audit and administrative procedures
- Provides of Glossary of Commonly Used Words
- Provides Answers to Commonly Asked Questions
- Will be updated as necessary.

This manual does not:

- Provide coverage interpretations
- Provide complete information about coverage
- Provide answers to specific claim questions.

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Project Contact Directory

OCIP Administration

Marsh	1225 17th Street, Suite 2100 Denver, CO 80202
OCIP Manager	Cindy Gibbens 303-308-4519 phone, 210-691-4386 fax Cindy.Gibbens@marsh.com
OCIP Administrator	Luella Norman 503-248-6142 phone; 1-800-237-4372 fax Luella.Norman@marsh.com
WC & GL Claims Contact	Daniel Killebrew 303-308-4668 phone, 303-308-4900 fax Daniel.killebrew@marsh.com
Risk Control/ Safety	Brian Rome 303-910-1970 phone; 303-308-4900 fax Brian.m.rome@marsh.com

OCIP Sponsor/ Owner

RTD FasTracks	1600 Blake Street Denver, CO 80202
Risk Manager	Robert L. Medina 303-299-2715 phone Robert.medina@rtd-denver.com
Project Manager	Ashland Vaughn, P.E. 303-299-6986 phone Ashland.vaughn@rtd-denver.com

Project Management

RRP (Regional Rail Partners) **NORTH METRO Rail Line Project Office**	1765 121st Ave., Suite 400 Westminster, CO 80234 (Main phone #)
Project Manager	TBD
Business Manager	Jesse Mangan 720-370-0894 Office 720-456-5200 Cell jmangan@rrpjv.com
Safety Representative	Tony Bale 720-370-0917 Office 720-636-6622 Cell tbale@rrpjv.com

Insurers

Workers' Compensation and General Liability

Zurich American Insurance

Account Executive	Paul Sovik-Siemens 303-224-4055 phone Paul.sovik-siemens@zurichna.com
Claims Consultant	Shelly Welter 214-866-1142 phone Shelly.welter@zurichna.com
Risk Engineering/Safety	Rick Zellen 720-737-8434 phone Rick.zellen@zurichna.com

Builder's Risk

TBD **Property Casualty**

Underwriter	TBD

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Insurance Provided by RTD FasTracks – OCIP Coverages

This section provides a brief description of OCIP Coverages. You should refer to the actual policies for details concerning coverage, exclusions and limitations.

Participation in this OCIP is mandatory but not automatic. The OCIP will provide the enrolled party with insurance described in this section, at RTD FasTracks' sole expense (except where noted otherwise).

Workers' Compensation Insurance

Insurer: Zurich American Insurance Company
Policy Term: 7/1/2014 – 12/31/2017
Workers' Compensation Limits: Statutory for the State of Colorado
Employer's Liability Coverage B -, with limits of:

$1,000,000 each accident for Bodily Injury by accident
$1,000,000 each employee for Bodily Injury by disease and
$1,000,000 policy limit Bodily Injury by disease

Covering operations of the enrolled party performed on or incidental to Work at the project site.

Commercial General Liability Insurance

Insurer: Zurich American Insurance Company
Policy Term: 7/1/2014 – 12/31/2017
Excluding Automobile and Professional Liability, in form providing coverage not less than a Commercial General Liability insurance policy including hazards of explosion, collapse, underground, independent Contractor(s), employees as additional insureds, completed operations for eight (8) years after the Project has been put to it intended use, contractual liability coverage and personal injury liability coverage for claims arising out of the Work for personal injury, bodily injury and property damage in policy or policies of insurance such that the total available limits, reinstated annually to all insureds combined will not be less than:

$2,000,000 per occurrence
$2,000,000 personal and advertising injury aggregate
$4,000,000 general aggregate- limits apply annually

$4,000,000 completed operations aggregate – applies to the term of construction and the 8 year completed operations extension endorsement.

Coverage will apply only to work performed at the Project site. Such insurance will not include coverage for products liability for any product(s) manufactured, assembled, or otherwise worked upon away from the Project site for any enrolled party or excluded party performing such off-site work.

Umbrella/Excess Liability Insurance

First Layer Excess Liability

Insurer: National Fire & Marine Insurance Company
Policy Term: 7/1/2014 – 12/31/2017
Following Form Basis in limits of:

$25,000,000 per occurrence
$25,000,000 general aggregate- annual limits, except with respect to Products and Completed Operations, in which case the limits are term limits, including the 8 year completed operations extension period

Excess of those stated above, to all insureds combined unless written notice is supplied to all enrolled parties under this OCIP.

Second Layer Excess Liability

Insurer: Darwin National Assurance Company
Policy Term: 7/1/2014 – 12/31/2017
Following Form Basis in limits of ($25M excess $25M):

$25,000,000 per occurrence
$25,000,000 general aggregate- annual limits, except with respect to Products and Completed Operations, in which case the limits are term limits, including the 8 year completed operations extension period

Excess of those stated above, to all insureds combined unless written notice is supplied to all enrolled parties under this OCIP.

Third Layer Excess Liability

Insurer: Endurance American Specialty Insurance Company
Policy Term: 7/1/2014 – 12/31/2017
Following Form Basis in limits of ($25M part of $50M excess $50M):

$25,000,000 part of $50,000,000 per occurrence
$25,000,000 part of $50,000,000 general aggregate- annual limits, except with respect to Products and Completed Operations, in which case the limits are term limits, including the 8 year completed operations extension period

Excess of those stated above, to all insureds combined unless written notice is supplied to all enrolled parties under this OCIP.

Fourth Layer Excess Liability

Insurer: Starr Surplus Lines Insurance Company
Policy Term: 7/1/2014 – 12/31/2017
Following Form Basis in limits of ($25M part of $50M excess $50M):

$25,000,000 part of $50,000,000 per occurrence
$25,000,000 part of $50,000,000 general aggregate- annual limits, except with respect to Products and Completed Operations, in which case the limits are term limits, including the 8 year completed operations extension period

Excess of those stated above, to all insureds combined unless written notice is supplied to all enrolled parties under this OCIP.

Other Insurance Provided by RTD FasTracks

(For the benefit of all other Contractors under contract for the NORTH METRO Rail Line Extension Project- Contractor DOES NOT have to be enrolled under these policies for coverage to apply.)

Builder's Risk

Insurer: TBD
Policy Term: TBD to TBD
Limits of:

$ TBD All Risk Coverage
$ TBD Earthquake annual aggregate
$ TBD Flood annual aggregate

In amounts sufficient to cover the replacement cost of Work in progress, Transit at sub limits of $ TBD and Off-Site at sub limits of $ TBD, insuring the interest of RTD FasTracks and enrolled parties coverage on an "All Risk" basis, including, but not limited to, coverage against fire, lightning, wind damage, hail, explosion, riot or civil commotion, aircraft and other vehicles, and collapse. The policy for such insurance will be secured and maintained by RTD FasTracks. The enrolled parties must report the value, time and means/location of any such transit or storage that exceeds the above sub limits to RTD FasTracks or his designee prior to transit or storage. The enrolled parties will be responsible for any loss that is uninsured or underinsured arising out of such failure to notify RTD FasTracks or his designee.

Coverage will include all materials, supplies and equipment that are intended for specific installation in the Project while such materials, supplies and equipment are located at the Project site, in transit and while temporarily located away from the Project site for the purpose of repair, adjustment or storage at one of the enrolled parties.

Excluded Items
This insurance will not include any tools or clothing of workers or any tools, equipment, protective fencing, scaffolding, and equipment owned, rented, leased or used by the enrolled parties in the performance of the Work, not intended for specific installation into the Project.

RTD FasTracks will not be liable or responsible for any loss or damage whatsoever to the excluded items and the enrolled parties will indemnify and hold harmless RTD FasTracks, from any claims or causes of action brought by any person or parties as a result of loss or damage to such excluded items.

The enrolled parties waive all rights against each other for loss or damage to any equipment used in connection with the Project and covered by any property insurance. The enrolled parties will require similar waivers from their Subcontractor(s).

The Builder's Risk policy will be endorsed (a) waiving the insurer's rights of recovery under subrogation against the enrolled parties whose interest is insured under such policy, (b) each policy will contain a provision that the policy will not be cancelled or allowed to expire until at least thirty (30) days' prior written notice has been given to the enrolled parties, and (c) policy will be primary and non-contributory.

Any loss insured as outlined above is to be adjusted with RTD FasTracks and made payable to RTD FasTracks as trustee for the insureds, as their interests may appear, subject to the requirements of any applicable mortgagee clause. The enrolled parties will pay such Subcontractor(s) an applicable share of any insurance monies received by the enrolled parties and by appropriate agreement, written where legally required for validity, will require Subcontractor(s) to make payments to their sub-subcontractor(s) in similar manner.

Enrolled parties will not make a claim against the Builders Risk policy without written notice to RTD FasTracks as the primary holder of the policy.

Deductible
The Builders Risk Insurance will have a deductible of $ TBD and will be allocated to the General Contractor and RTD FasTracks. The contractor is responsible for the first $50,000 of the deductible and RTD FasTracks is responsible for the remaining portion of the deductible for each occurrence.

Contractors' Pollution Liability

Insurer: TBD
Policy Term: TBD to TBD

The project will have a limit of $ TBD per occurrence and a $ TBD aggregate limit. The policy period shall coincide with the construction term. Coverage will apply to all claims as a result of Bodily Injury, Property Damage or Clean-up Costs caused by Pollution Conditions resulting from Covered Operations that are performed by or on the behalf of the Contractor at the Project site. Coverage shall also include transportation, disposal site coverage and a minimum of two years of completed operations.

Railroad Protective Liability

Where required, RTD FasTracks will purchase and maintain Railroad Protective Liability insurance in the name of the railroad in connection with all Work across, under or adjacent to railroad tracks or right-of-way with limits required by the Railroad.

Additional Coverage Terms

Primary And Non-Contributing: Workers' Compensation and Employers Liability insurance is primary and non-contributing with respect to any persons (other than RTD FasTracks' employees) covered by such insurance. Commercial General Liability, Umbrella/Excess and Builders Risk insurance is primary insurance and non-contributing with any other insurance carried by the enrolled parties.

Assignment: In consideration of RTD FasTracks purchasing OCIP insurance as stated above, the enrolled parties will assign to RTD FasTracks all return premiums, premium refunds, dividends and other monies due or to become due in connection with the insurance which RTD FasTracks provides under the OCIP, all of which will inure to the benefit of the OCIP. The enrolled parties will execute such further documentation as may be required by RTD FasTracks to effect this assignment.

Waiver Of Subrogation Rights: Except for the amount of the deductibles as stated elsewhere in this contract, the enrolled parties each on their own behalf and on behalf of anyone claiming by, through or under them, whether by way of subrogation or otherwise, hereby waive any and all subrogation rights which they may now or hereafter have against each other and the parent, related and affiliated companies, the successors and assigns of each other, in connection with the performance of the Work to the extent such subrogation rights are not the result of any intentional wrongful act or omission of the party causing such loss and are covered losses under the insurance provided hereunder.

If RTD FasTracks Elects Not to Continue the OCIP

If RTD FasTracks, for any reason, is unable to furnish coverage, elects to discontinue the OCIP, modifies the limits of liability provided in the OCIP, or requests that an enrolled party withdraw from the OCIP, then, upon thirty (30) days written notice from RTD FasTracks, the enrolled party specified by RTD FasTracks in such notice, will obtain at RTD FasTracks' expense and thereafter maintain during the performance of the Work, all (or a portion thereof as specified by RTD FasTracks) of the insurance required to be provided by excluded parties and as otherwise required under the contract documents, and RTD FasTracks will thereafter no longer be obligated to furnish all or a part of such insurance through the OCIP. The form, content, limits of liability and cost of such insurance and the insurer issuing such insurance secured by the enrolled party pursuant to the provisions of this section will be subject to RTD FasTracks' approval, which approval will not be unreasonably delayed or withheld.

Copies of the policies that comprise the RTD FasTracks NORTH METRO Rail Line Extension OCIP, and the additional insurance purchased by RTD FasTracks, are available upon request to the OCIP Administrator.

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Contractors' Responsibilities

Throughout the course of the Project, Contractors will be responsible for reporting and maintenance of certain records as outlined in this section.

The Contractor is required to cooperate with RTD FasTracks and its OCIP administrator in all aspects of OCIP operation and administration. Responsibilities of the Contractor include:

- Identifying the cost of insurance in bids
- Enrolling in the OCIP
- Including OCIP provisions in all subcontracts as appropriate
- Providing timely evidence of insurance to the OCIP administrator
- Notifying the OCIP administrator of all subcontracts awarded
- Maintaining and reporting monthly payroll records
- Cooperating with the OCIP administrator's requests for information
- Complying with insurance, claim and safety procedures
- Paying deductibles promptly as required
- Notifying the OCIP administrator immediately of any insurance cancellation or non renewal (contractor-required insurance)

Contractor Bids - Insurance

Failure of enrolled parties to enforce the enrollment of all Subcontractor(s) of any tier does not relieve the enrolled parties of the financial responsibility for their insurance deductions. RTD FasTracks maintains the right to pursue insurance deductions for all Subcontractors of any tier through the first tier Contractor(s), if it is determined that costs are included for insurance coverages provided though the OCIP program. This is limited to forward priced changes and time and material work only.

The enrolled parties will provide and warrant the accuracy of the information provided on the Insurance Premium Worksheet and Enrollment Package, including the supporting documents (Copies of the policy declaration page and policy rate pages or Deductible Agreement pages if on a large deductible program or a letter from your insurance insurer evidencing the deductible rate and loss content rate) and/or any change order forms and agrees that RTD FasTracks, OCIP administrator and/or the OCIP insurers may, but are not required to audit the Contractor(s) and/or Subcontractors records to confirm the accuracy for any and all allowable insurance credits including, the changes to the contract section of this contract. The enrolled

parties agree and warrant that RTD FasTracks is entitled to and may collect additional insurance costs as may be developed as a result of said audits and/or changes/change orders as may be agreed to in connection with the Work. No reimbursements will be made for over estimation of the insurance costs. The enrolled parties agree to provide insurance records, policies, declaration pages of policies, certificates of self-insurance and such other documents as may be requested in order to assure the accuracy of insurance data.

BID APPROACH OPTION

Compensation payable to the Contractor for performance of the Work will **exclude** all costs of insurance as it relates to Workers' Compensation, General Liability, and Umbrella/Excess as described in the "*Insurance Required of Enrolled Contractors*" section as if they were required to provide the coverage and limits of liability for onsite Work. The enrolled parties will identify and remove their insurance costs, regardless of the risk financing technique employed for Workers' Compensation and General Liability exposures, including but not limited to insurance premiums, expected losses within any retention or deductible amount, loss handling expenses and administrative expenses, **and** subcontractors' insurance costs. The enrolled parties warrant that all insurance premium calculations have been correctly identified and removed from their bid.

All changes orders will be submitted **net of insurance** and labor rates will be reduced to reflect the insurance reduction.

Upon completion of Work, or on policy expiration, RTD FasTracks' insurance insurers have the right to audit payroll records.

Costs for overlapping insurance coverage maintained by the enrolled parties will not be reimbursable.

Enrollment

Prior to the start of work at the Project site, all contractors and subcontractors of any tier shall complete the following forms and provide them to the OCIP administrator via express delivery or facsimile. Enrollment Package which includes the following parts:

- Insurance Enrollment Application – Form 6a (3 pages)
- Notice of Subcontract/Leased Employee Award (If applicable) – Form 6b
- Acknowledgement of Receipt of Manual and Right to Request OCIP Policies
- Certificate of Insurance evidencing coverage outlined in Section 5. A sample certificate of insurance has been included in Section 6 – Forms of this manual

The OCIP Administrator will provide a Certificate of Insurance evidencing OCIP coverages naming the enrolled party as an insured. Individual workers' compensation policies will be issued to the enrolled party.

Note: All questions regarding this procedure should be directed to the OCIP Administrator at Marsh as outlined in the Project Contact Directory.

The OCIP Administrator must be notified of all subcontractor activity. Should there be a change in subcontract activity after the initial contract award, (i.e. a subcontractor is added or changed) the "Notice of Subcontract Award," form must be completed and sent to the OCIP administrator prior to the subcontractor starting work at the Project site.

Assignment of Return Premiums

The cost of the OCIP insurance coverages will be paid by RTD FasTracks. RTD FasTracks will be the sole recipient of any return OCIP premiums or dividends. All enrolled parties shall submit requests to RTD FasTracks for all adjustments, refunds, premium discounts, dividends, credits or any other monies due from the OCIP insurers. Contractors shall assure that each enrolled Subcontractor shall execute such an assignment.

Subcontract/Leased Employee Award Notification

Each party is responsible for notifying the OCIP administrator of subcontract awards via Notice of Subcontract/Leased Employee Award (Form 6c) form signed by a company representative.

Contractors and subcontractors of any tier are **not** covered under the OCIP until necessary enrollment information is properly completed, submitted to the OCIP administrator and acknowledged as enrolled.

After receiving the Notice of Subcontract/Leased Employee Award form, the General Contractor or the appropriate contractor will be responsible for reporting ALL contracts awarded to the OCIP administrator, who will then contact each contractor to begin enrollment.

Cooperation

The enrolled parties will:

1. Furnish to RTD FasTracks, its insurance representatives or the OCIP insurer all information and documentation which the OCIP may require in connection with the issuance of any policies, in such form and substance as RTD FasTracks or its designee may require.
2. Furnish to RTD FasTracks, its insurance representative or the OCIP insurer, on-site payroll reports on the form as required and described in this Manual on a monthly basis for prior month (including months with no payroll).
3. Permit RTD FasTracks, its insurance representative and/or the OCIP insurer to audit the enrolled parties books and records and provide documentation as may be required to assure accuracy of those payroll reports. The enrolled parties agree that their failure to submit documents as required may result in withholding progress payments until said payroll reports are received by RTD FasTracks or its designee.
4. Promptly comply with the requirements, obligations and recommendations of RTD FasTracks, its insurance representative or OCIP insurer so that the OCIP may be properly administered and so that the insurance companies will continue to provide the coverage as specified in this the document under the OCIP. If the enrolled parties should fail to comply with any requirement, obligation or recommendation, RTD FasTracks may withhold any payments due the enrolled parties until such time as they will have performed the requirements, obligations and recommendations as required by this contract.

5. Provide RTD FasTracks and RTD FasTracks' representative with all information necessary for the issuance of said policies and maintain and make available to the insurance companies payroll records and such other records relating to the Work as may be necessary for the proper computation of the insurance premiums.
6. Cooperate with RTD FasTracks with regard to administration and operation of the OCIP. The enrolled parties' responsibilities will include but are not limited to: operations and insurance information; inclusion of OCIP provisions in all subcontracts; notification to RTD FasTracks' representative of all subcontracts awarded; maintenance and provision of monthly payroll records and other records as necessary for premium computation; compliance with applicable loss control (safety) and claims reporting procedures; maintenance of an OSHA Log to be provided monthly to RTD FasTracks and/or RTD FasTracks' Representative.

Any fines assessed for claims which are reported late are the responsibility of the Contractor and/or Subcontractor of any tier.

Payroll or Contract Value Reporting

Each enrolled party must submit monthly payroll to the OCIP administrator by the 10th day of the month following the end of the previous month identifying Project site work-hours and payroll. Only the payroll of the contractor's employees who perform duties at the Project site should be included on the payroll report. If your general liability insurance is rated on contract value, you will have to report your completed contract value to date. This information will be used to provide the OCIP insurer with information required to determine RTD FasTracks' premium.

If you did not perform any work at the Project site in a given month you must **still** submit your payroll form showing zero (0) payroll and applicable completed contract value to date (if applicable) for the month and return it to the OCIP administrator.

The OCIP insurer is required to file experience data for each enrolled party with the appropriate rating authority. The loss experience of the contractor for work performed on the Project site may affect the experience modification factor of that contractor.

To avoid paying premiums to your primary insurance insurer on payroll associated with work performed under the OCIP, payroll reported as described above should be excluded from payrolls submitted to your primary insurer. In addition, there are a number of ways to endorse or modify your primary insurance to assist in this process. The workers' compensation policy issued to you and the certificate of insurance showing you as a named insured on the general liability policy may be used to provide evidence of your enrollment in the OCIP to your primary insurer.

OCIP Insurer Payroll Audits

Each enrolled party is required to maintain payroll records for the Project Site in accordance with the Basic Manual of Rules, Classifications, and Experience Rating Plan for Workers' Compensation and Employer's Liability Insurance. Such records allocate the payroll by Workers' Compensation classification(s) and shall exclude the excess or premium paid for overtime (i.e., only the straight time rate shall apply to overtime hours worked). Furthermore,

such records shall limit the payroll for Executive Officers and Partners/Sole Proprietors to the limitations as stated in the state manual rules.

It is important that you properly classify payrolls, as these will be reported to the rating bureau for promulgation of future Experience Modifiers for your firm. All enrolled parties shall make available their books, vouchers, contracts, documents, and records, of any and all kinds, to the auditors of the OCIP insurer or RTD FasTracks' representatives at any reasonable time during the policy period, any extension, or during a final audit period as required by the insurance policies.

Handling Change Orders

Change orders, field proceed orders, and/or construction change directives submitted by each enrolled party shall **exclude** the cost of Workers' Compensation, General Liability and Umbrella/Excess Liability insurance. The associated labor costs shall be documented on each and every change order.

Notice of Work Completion – Close-out of Each Contract

The General Contractor will close out each contract as the enrolled parties complete their work. Only partial retention will be released until the closeout has been completed.

The enrolled parties must complete a "Notice of Work Completion" form (see Section 6 – Forms) for each contract that has been completed on the Project site. Once the form has been completed it should be submitted to the OCIP Administrator via fax, email or mailed.

The OCIP Administrator will get verification from the General Contractor that the information submitted by the contractors is correct and will do the following:

1. Request "final" contract value from the General Contractor or awarding contractor. If any payroll or documentation is missing, the OCIP Administrator will contact the enrolled party for the information and final contract cost for his subcontractors.
2. If all payroll reported is in line, complete a closeout form and forward the documentation to the awarding contractor and RTD FasTracks for their sign-off.

OCIP insurer may audit the enrolled parties at time of close out. Once close-out is complete, copies of all close-out information will be given to the General Contractor or awarding contractor and copies to all enrolled parties involved.

Any deductibles that the enrolled parties are responsible for will be considered at the time of the Contract close-out unless the claim has been concluded and the actual cost of the claim has been established and considered prior to close-out.

Claims Reporting

Each enrolled party shall follow the claims procedures as established by RTD FasTracks' OCIP administrator. The enrolled parties agree to assist and cooperate in every manner possible in connection with the adjustment of all claims and demands in which RTD FasTracks' insurer(s) is called on to adjust or defend. Refer to Section 7 – Claims Reporting of this Manual.

Safety Procedures

Please see the safety and loss prevention section of this manual as well as the RTD FasTracks Construction Safety Guidelines for mandatory safety requirements.

Return to work is not optional on this project. Please see the return to work statement in this manual as well as the RTD FasTracks Construction Safety Guidelines.

Both the OCIP Manual and the RTD FasTracks Construction Safety Guidelines document are contractually required. Revisions may be made to either or both of these documents as the project progresses and those revisions will hold the same authority as the original documents and will be contractually required in whatever revision is most current.

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Contractor Insurance Requirements

Contractors and subcontractors are required to maintain coverage to protect against losses that occur away from the Site or that are otherwise not covered under the OCIP.

Insurance Required of Enrolled Contractor

The OCIP provides coverage for Work at the Project site only.

Insurance for the Work performed AWAY FROM THE PROJECT SITE by the enrolled parties include the following coverage as further described below:

- Workers' Compensation and Employer's Liability Insurance
- Commercial General Liability Insurance
- Commercial Automobile Liability Insurance
- Umbrella/Excess Liability Insurance

The enrolled parties will provide and maintain the types of insurance described below in a company or companies legally authorized to transact insurance business in the state of Colorado. All insurers will be rated at least A- VII or better in the current A.M. Best ratings or must be otherwise acceptable to RTD FasTracks. The enrolled parties will maintain the specified insurance coverage until all obligations under this contract are satisfied.

The limits of liability shown for the insurance required of the enrolled parties are minimum limits only and are not intended to restrict the liability imposed on the enrolled parties for Work performed under their Contract.

Workers' Compensation and Employer's Liability: The enrolled parties will maintain Statutory Workers' Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction over its employees while engaged in the performance of the Work at locations other than those described as the Project site. This insurance will also cover any enrolled parties' employees working AWAY FROM THE PROJECT SITE and coming on the Project site after the Project has been put to it intended use of the Project and Subcontractor(s) employees after Subcontractor(s) has finally performed its contract.

Workers' Compensation coverage will comply with the statutory limits of the State of Colorado, and will provide for Employer's Liability insurance with limits as follows:

$1,000,000 bodily injury by accident for each person
$1,000,000 bodily injury by disease for each person
$1,000,000 bodily injury by disease–policy limit

Commercial General Liability: Insurance for premises and operations AWAY FROM THE PROJECT SITE of the enrolled parties (including products liability for any product manufactured, assembled or otherwise Worked upon away from the Project site) in a form providing coverage not less than that of Commercial General Liability insurance policy ("Occurrence Form") for operations of the party required to furnish same, including hazards of elevators, independent Contractors, products and completed operations, with contractual liability and personal advertising injury liability coverage for claims arising out of the Work hereunder for personal injury, bodily injury and property damage in policy or policies of insurance such that the total available limits combined will not be less than:

As respects Subcontractors of any tier:
$2,000,000 per occurrence
$2,000,000 personal and advertising injury aggregate
$2,000,000 general aggregate limit
$2,000,000 aggregate products and completed operations.

Any deductibles in place will be the responsibility of the enrolled parties as respects to offsite activities.

Commercial Automobile Liability: Covers all owned, hired, borrowed, leased, or non-owned automobiles. Such insurance will provide coverage not less than that of the Commercial Automobile Liability policy in limits not less than:

As respects all Subcontractor(s) of any tier:
$2,000,000 Combined Single Limit each occurrence for Bodily Injury and Property Damage

Contractual Liability, if not provided in the policy form, is to be provided by endorsement.

If hazardous materials or waste are to be transported, the Commercial Automobile Liability insurance will be endorsed with the MCS-90 endorsement in accordance with the applicable legal requirements.

Total General Liability and Automobile Liability limit requirement may be met by primary coverage or combination of primary and umbrella/excess.

Any applicable retention will be the responsibility of the Contractor as respects to off-site activities.

Contractor's Equipment: The enrolled parties are responsible for their construction tools and equipment, included but not limited to construction trailers and their contents, temporary scaffolding, whether owned, leased, rented, borrowed or used at the Project site; and the enrolled parties agree that RTD FasTracks will not be responsible for any loss or damage to its tools and equipment. If insured, the enrolled parties' insurance policy covering tools and

equipment will include a waiver of subrogation in favor of RTD FasTracks, designer, engineer and all enrolled parties. If uninsured, the enrolled parties will hold harmless RTD FasTracks, designer, engineer, and all other enrolled parties for loss or damage to their tools and equipment.

Additional Insureds: Each policy required (except Worker's Compensation and Professional Liability, if selected as a required coverage) will name as additional insured RTD FasTracks, RTD FasTracks' representatives, General Contractor their respective parent companies, their subsidiaries, related and affiliated companies of each and the officers, directors, agents, employees and assigns of each. General Liability coverage maintained by contractors and sub contractors shall contain Additional Insured endorsement CG 20 10 11/85 or equivalent. Products and Completed Operations coverage shall be maintained for a minimum of five years after contract expiration or Project completion, whichever occurs later.

Waiver of Subrogation: The enrolled parties and their respective insurers providing the required coverage as indicated in Workers' Compensation and Commercial General Liability, Umbrella/Excess Liability or any required coverages, will waive all rights of recovery against RTD FasTracks and RTD FasTracks' agents, officials, and employees.

Each enrolled party will pay all insurance premiums for such insurance, including any charges for required waivers of subrogation or the endorsement of additional insureds.

Primary and Non-Contributing: Insurance coverage for Work AWAY FROM THE PROJECT SITE required of the enrolled parties is primary and non-contributory.

Certificates of Insurance: The enrolled parties and excluded parties will provide certificates of insurance to RTD FasTracks as evidence that policies specified in this section providing the required coverage, conditions, and limits are in full force and effect. Certificates of insurance will be labeled and addressed as follows:

RTD FasTracks NORTH METRO Rail Line
c/o Marsh USA Inc.
1225 17th Street, Suite 1300
Denver, CO 79191

Notice of Cancellation All insurance policies and certificates of insurance will include a requirement providing for *30* days prior written notice to RTD FasTracks of any cancellation or reduction of coverage. If any such notice is given, RTD FasTracks will have the right to require that a substitute policy be obtained prior to said cancellation with appropriate evidence thereof at the discretion of RTD FasTracks. The enrolled parties and excluded parties will immediately notify RTD FasTracks and will cease operations on the occurrence of any such cancellation or reduction and will not resume operations until the required insurance is in force and new certificates of insurance have been filed with RTD FasTracks.

Insurance Requirements of Excluded Parties

Excluded parties as defined, performing Work will obtain and maintain, and will require each of its excluded Subcontractors to obtain and maintain, the insurance coverage specified in the above section. However, such insurance coverage will be required for both ON and OFF the Project Site for all such coverages.

6

Forms

This section contains the forms needed for enrolling, reporting payroll, change orders and other administration of the OCIP.

For assistance in completing these forms, please contact the OCIP Administrator identified in the Project Contact Directory (Section 2).

- ✓ Form 6a: Insurance Enrollment Application
- ✓ Form 6b: Notice of Subcontract / Leased Employee Award
- ✓ Sample Certificate of Insurance (offsite coverages)
- ✓ Form 6d: Monthly Payroll Reporting Form
- ✓ Form 6e: Notice of Work Completion

7

Claim Reporting Responsibilities and Procedures

- It is the responsibility of each Contractors to immediately notify the RTD Loss Control-Safety Manager and/or Design/Build Contractor Site Safety Manager, or their designated representative, of all incidents involving bodily injury or property damage at the site, whether to workers or the general public, including near misses and incidents that may reasonably result in a claim of any type.
- Each Contractor must comply with the claims reporting procedures detailed in paragraphs A and B below, and shall assist in the investigation of any accident or potential claim in every manner required per paragraph C of this section.

A. WORKERS COMPENSATION

1. <u>WC Claim Reporting Procedure</u>

If an employee of an enrolled Contractor is injured on a Covered Site, you must:

- Dial 911 for seriously injured employees to obtain emergency medical care as soon as possible.
- Immediately report accident, injury or incident to immediate supervisor or foreman. Supervisor or foreman then notifies the Design/Build Contractor Site Safety Manager or designated representative and the RTD Loss Control-Safety Manager within 1 hour of knowledge of the incident.
- Supervisor or designee must take employees with non-critical injuries (911 has not been called) to the onsite office of the Design/Build Contractor Site Safety Manager to complete the First Report of Injury form and to obtain a medical authorization form.
- Supervisor or Design/Build Contractor Site Safety Manager must accompany injured employee to Clinic or Hospital.
- For seriously injured employees where 911 has been called, an initial report will immediately be made to TBD by the RTD Loss Control–Safety Manager or

designee.

- The First Report of Injury must be completed by supervisor and report made to the Design/Build Contractor Site Safety Manager and/or RTD Loss Control-Safety Manager within 24 hours. Follow-up medical care will be provided by the Designated Provider as appropriate.
- An accident investigation report must be completed within 24 hours of injury by the injured employee's immediate supervisor or foreman and delivered to the Design/Build Contractor Site Safety Manager or designated representative.
- The injured employee must report to the Design/Build Contractor Site Safety Manager or designated representative with a medical status report prior to returning to work.

Please note that Colorado Workers Compensation Statutes require the OCIP provider or employer to designate two Medical Providers. The Designated Providers for the OCIP are shown on page 13 and must be used at all times. In case of emergency, injured worker should be taken to an emergency facility, and report made to the Designated Provider preferred by the employee within 48 hours. Follow-up medical care will be provided by the Designated Provider as appropriate.

2. **Workers Compensation Claims Contact Information**

DESIGNATED MEDICAL PROVIDER:

Rocky Mountain Medical Group
14100 E. Jewell Ave. #15
Aurora, CO 80012
Phone: 720 748-7072
Hours: 8:00 AM to 5:00 PM / Monday-Friday

Midtown Occupational Health Services
2420 W. 26th Ave., Bldg. D, Suite 200
Denver, CO 80211
Phone: 303 831-9393 Fax: 303 831-6335
Hours: 7:00 AM to 6:00 PM / Monday-Friday

Concentra Medical Centers
10355 East Iliff Ave.
Aurora, CO 80247
Phone: 303 755-4955 Fax: 303 755-4956
Hours: 8:00 AM to 5:00 PM / Monday-Friday

For a medical emergency call 911 and/or go to the nearest hospital emergency room and notify the clinic or the project safety manager the next business day.

RTD LOSS CONTROL-SAFETY MANAGER:

Brian Rome
Cell Phone: 303-910-1970
Email: brian.m.rome@marsh.com

DESIGN/BUILD CONTRACTOR SAFETY MANAGER:

Tony Bale

720-370-0917 Office

720-636-6622 Cell

tbale@rrpjv.com

WORKERS COMPENSATION CLAIMS REPORTING:

Follow procedures provided in Section V.A. above and report by either method:

CALL-IN: Report Workers Compensation claims by calling Zurich Care Center at:
877-99RTDHELP [877-997-8343]
Alternate General Reporting Line 800-987-3373
Fax: 877-962-2567

ON LINE: or Report Work Comp claims on line at www.zurichna.com →
Select Claims from top margin → Select Online: ZNA Online Claims
Email: usz_carecenter@zurichna.com

SEND ALL WORKERS COMPENSATION MEDICAL BILLS TO:

Zurich
P.O. Box 968020,
Schaumburg, IL 60196-8020

MARSH CLAIMS CONSULTANT:

Marsh USA Inc.
1225 17th Street, Suite 1300
Denver, CO 80202

Daniel Killebrew
Phone: 303-308-4668 Fax 303-308-4900
Email: Daniel.Killebrew@marsh.com

3. Return to Work Program

The prompt return to work of all employees as soon as medically possible will support the needs of the injured employee, the OCIP and the Contractors. In this regard, the Contractors will promote the return of their employees by providing alternative jobs involving activities commensurate with the physical limitations, which may be medically imposed. These modified duty options which will be for a limited duration as employees still need to be qualified for the work positions, maybe extended beyond the immediate Covered Site to include open and available alternative jobs within the company, or alternative job sites or office related positions. As long as a medical provider has issued restrictions return to work is a requirement on this project and is not optional.

B. COMMERCIAL GENERAL LIABILITY, BUILDERS RISK OR CONTRACTOR POLLUTION LIABILITY

If you are involved in, or become aware of, an accident or incident other than workers compensation (bodily injury to a third party/non-employee or property damage liability, Contractor pollution or builders risk) you shall:

- Immediately report accident, injury or incident to immediate supervisor or foreman. Supervisor or foreman shall then notify the Design/Build Contractor Site Safety Manager and or the RTD Loss Control-Safety Manager.
- An Incident/Claim reporting form is included at the end of this Claims section. You must complete this form and provide the completed form to the Design/Build Contractor Site Safety Manager and /or the RTD Loss Control-Safety Manager
- The RTD Loss Control-Safety Manager will submit Incident/Claim Reporting Form to the insurance company following the prescribed internal claims reporting procedures.

Incident/Claim Reporting Form

Email to: Project Safety Managers
TBD
And Brian Rome, Marsh @ brian.m.rome@marsh.com

Please complete this form if you are involved in, or become aware of, any accident or incident that might result in a commercial general liability, property damage, bodily injury or builders risk claim. You should immediately notify and provide a copy of this form to the Design/Build Contractor Safety Manager and RTD Loss Control-Safety Manager.

WHO IS MAKING THIS REPORT:

Contractor Name (if applicable):		Report Date:	
Your Name:		Phone Number:	

PROVIDE AVAILABLE INCIDENT/ACCIDENT INFORMATION:

Date of incident or accident:	
Specific location of incident/accident:	
Describe the incident/accident:	
Describe injury or property damage:	
Name of person(s) claiming bodily injury or property damage Address and phone number(s):	
Names of Witnesses and their Address and phone number(s)	

C. ACCIDENT INVESTIGATION

1. Responsibilities for Investigation

The Contractor/subcontractors shall cooperate with RTD, RTD Loss Control-Safety Manager, Design/Build Contractor Site Safety Manager, and the insurance company designated by RTD in the investigation and/or settlement of any- claim by:

- Completing the Incident/Claim Reporting Form ("Report") provided in this section, and submittal of the Report to the RTD Loss Control-Safety Manager and/or Design/Build Contractor Site Safety Manager, or their designated representative;
- Obtaining witness statements and written statements of the worker(s) involved;
- Preserving all physical evidence including arrangement of the accident scene until such time at the RTD Loss Control-Safety Manager releases the site for further work.
- Providing photos, diagrams and other physical evidence (e.g. tools, materials, etc.) and any other pertinent information (e.g. MSDSs, brochures, etc.) requested; and
- Providing additional assistance as needed by RTD, the insurance company and their representatives.
- RTD and TBD reserve the right to confiscate and hold at their discretion any evidence such as equipment, material, etc., involved in the incident as mutually agreed upon within reason.

2. Incident Review Board

- An incident review board will be scheduled and conducted by the RTD Loss Control-Safety Manager on an as needed basis. The Board shall include the Design/ Build Contractor Site Safety Manager, upper management and the involved field personnel. At the discretion of the RTD Loss Control-Safety Manager a root cause analysis may be utilized. See below.

3. Root Cause Analysis

- For all incidents involving injury or high potential for injury or loss, a root cause analysis will be conducted. The injured employee, a representative of the employee's senior management, and a management representative of the Design/Build Contractor are required to attend.
- The definition of "senior management" and "high potential for injury or loss" is at the sole discretion of the RTD Loss Control-Safety Manager.

4. Other Notifications Required

- RTD Loss Control-Safety Manager, or designee, shall initiate notification and consultation with RTD management and pertinent insurance representatives.
- All media inquiries shall be referred to Pauletta Tonilas, RTD FasTracks Public Relations Manager at 303-250-4846 (cell).

8

Safety & Loss Prevention Program

The goals and objectives under the OCIP are to emphasize that protecting people and property are of paramount importance to the success of this Project. Incidents at this Project can be controlled and prevented through safe work practices. Each contractor and subcontractor of any tier and each of its employees is responsible for safety at this Project.

Active participation by the contractor and subcontractors of any tier in all Project safety and loss prevention programs is mandatory. The General Contractor, contractors and subcontractors of any tier, must provide its employees with complete support and continuing involvement in all safety and loss prevention programs.

Project Safety Policy Statement

While it is the responsibility of each individual to work safely, it is ultimately the responsibility of the General Contractor to see that all employees are trained and comply with safety and health rules and good construction practices.

Safety should never be sacrificed for production, and it must be considered an integral part of the planning process. Our goal, and your goal as a General Contractor on the Project, is to prevent accidents. The General Contractor is charged with the responsibility for developing, adhering to, and enforcing the safety and loss prevention program.

Each bid has included the General Contractor's cost to establish and maintain a safety and loss prevention program that meets or exceeds the requirements contained in the Project Safety Manual for the NORTH METRO Rail Line Extension. (A copy of the General Contractor's program must be submitted for review and compliance after the contract has been awarded).

Each contractor will be solely responsible for carrying out the Safety and Loss Prevention Program. To that end, each contractor of any tier with 50 or more employees on site and the prime contractor or contractors shall designate a full time, dedicated and competent (the RTD Safety Manager must agree regarding the competency of the individual) on-site safety representative to carry out this responsibility. If any subcontractor of any tier has 50 or more employees on site during the project a full time and competent (the RTD Safety Manager must agree regarding the competency of the individual) safety representative will be present on the

site during their work. The safety representative from the General Contractor's is responsible for directly overseeing the contractor's and sub contractor's employees. This will ensure that the contractor's programs and actions comply with the minimum safety standards as required by federal, state and local codes, regulations and the RTD FasTracks Construction Safety Guidelines.

The goal of the program is to eliminate injuries to workers, damage to third party property and utilities and to reduce construction interruptions due to accidents by setting the minimum standards that the General Contractor's safety and loss prevention programs must meet.

In addition to setting minimum standards, this program promotes safety through employee safety orientations and safety recognition programs designed to promote a safe work environment.

The OCIP Team will monitor the General Contractor's compliance with all safety and loss prevention programs. Deviation from this program will be immediately remedied in writing if requested by the RTD Safety Manager to the satisfaction of RTD FasTracks.

RTD's pro-active attitude toward safety and loss control will include periodic monitoring of the project's safety and loss control programs as outlined in the: approved project safety specific safety manual written by the prime contractor and agreed to by RTDs safety manager. In addition the RTD Construction Safety Guidelines and any best practice or regulatory document will serve as an enforceable minimum requirement. The ultimate responsibility lies with the Prime Contractor and their contractors, including each individual employee, to comply with all safety and loss control procedures and help their fellow employees do the same. Therefore the prime contractor shall ensure that they and all other Contractors shall:

(a) Comply with all applicable federal, state, and local regulations, the provisions of the RTD FasTracks Construction Safety Guidelines, and such other special safety provisions as may be set forth in any notice or communication or otherwise provided to the Contractor by Marsh or RTD;

(b) The prime contractor and each subcontractor shall designate one person to be responsible for carrying out the Contractor's obligations under this article (see requirements for time allotment based on employee number earlier in this document). The prime contractor shall be responsible for ensuring that all sub contractors responsible persons are performing their duty under this article;

(c) With respect to the prime contractor, maintain, and with respect to the Subcontractors, participate in, an educational program to assure the inclusion of safety instructions as part of each job assignment;

(d) Arrange for first-aid treatment of job-incurred injuries in accordance with requirements of its insurer for Workers Compensation Insurance;

(e) When an injured worker is released to return to work with or without restrictions (i.e. light duty or modified duty). The contractor will agree to make reasonable accommodations and when possible accept the worker back to work at this project, so long as the employee can perform the essential functions of the job with or without a reasonable work modification; and

(f) Promptly report to the Safety Manager all injuries, near misses, occupational injury and OSHA-recordable injuries and cases of death caused by work on the Project.

Drug Free Workplace

This Project is a drug-free work environment. Each contractor will maintain a drug-free environment in accordance with the OCIP policy as stated in the Project Safety Manual and the RTD Construction Safety Guidelines. The General Contractor is responsible for testing any and all employees who work on the Project for the presence of drugs or alcohol.

The General Contractor will test its employees and the employees of all subcontractors as outlined in the RTD Construction Safety Guidelines throughout the construction process including testing at the time of any accident and to the extent necessary to implement drug-free workplace standards in accordance with the Project Safety Policy. In addition, the General Contractor is responsible for ensuring that the employees of subcontractors of any tier are tested to the same standard if they are to report to work on the Project, in order to maintain a drug-free environment.

The General Contractor is required to include the cost of drug testing in its bid. The General Contractor will maintain any confidential records regarding employee drug tests in a manner consistent with State law.

The General Contractor and subcontractors of any tier will direct that the employee report to a medical laboratory for the appropriate testing at a time convenient to the contractor and its employee in accordance with State law. The medical laboratory will report the test results directly to the General Contractor and the General Contractor will certify in writing to RTD FasTracks that the employees working on the site have been tested prior to being issued the site access clearance.

Medical Services

Medical Treatment

For First Aid response, notify the on-site safety contact. The need for additional emergency response assistance will be assessed by the site first aid resource responding to the scene of the accident. If the need for emergency medical services is obvious call 911 immediately!

Emergency Medical Transportation

It is the General Contractor's responsibility to arrange for emergency transportation, when necessary, of any injured employee.

9

Meanings of Words and Phrases

The following list of words and phrases include an explanation of meanings. However, they may be defined differently in other documents, and in that case, the definitions given in such documents will take precedence with respect to such documents.

Certificate of Insurance

An Accord document providing evidence of the existence of coverage for a particular insurance policy or policies.

OCIP Administrator

Representatives from Marsh USA Inc.

Contract

A written agreement between RTD FasTracks and a General Contractor for specific Work OR an agreement between the General Contractor and any tier of Subcontractor.

Contractor

The person, firm, joint venture, corporation or other party that has entered into a Contract with RTD FasTracks to perform Work at the Project site. The overall project contractor is also referred to as “general contractor”. A contractor is the party to a contract who is charged with the total construction and who enters into subcontracts for such work as electrical, plumbing, etc.

Contractor Enrollment

Enrollment is the beginning of a number of documents that must be completed for the contractor to participate in the OCIP. The documentation is defined at a Project level and will vary from Project to Project. Generally, the package will include contact information, location of records, general information regarding the contractor and loss control program and may include an insurance premium worksheet.

Insureds

RTD FasTracks and specifically enrolled Insured Parties. Insureds will also be other parties that RTD FasTracks is required under contract to add as additional insureds.

Insurer

The OCIP insurer(s) issuing a policy for coverages under the OCIP.

Off – Site Insurance Certificate

Evidence of the contractor's Off – Site Insurance as stipulated in the contract documents for Automobile, Off-Site Workers' Compensation, Off-Site General Liability. Evidence of an Excess/Umbrella Liability policy may be required to satisfy the contract limit requirements for the above coverages.

Project Site

"Project site" shall mean those areas designated in writing by RTD FasTracks for performance of the Work and such additional areas as may be designated in writing by RTD FasTracks for Contractor's use in performance of the Work. Subject to the notification and other requirements for off-site locations, the term "Site" shall also include (a) property used for bonded storage of material for the Project approved by RTD FasTracks, and (b) areas where activities incidental to the Project are being performed by General Contractor or Subcontractors covered by the worker's compensation policy included in the OCIP, but excluding any permanent locations of Contractor or such covered Subcontractors.

Sponsor/ Owner

RTD FasTracks and any affiliated, subsidiary or associated companies as now exist or may hereafter be constituted or acquired. In addition, any corporations, partnerships, joint ventures, individuals or companies over which any of the above exercises financial or management control, as now exist or may hereafter be constituted or acquired.

Subcontractor

The person, firm, joint venture, corporation or other party that has entered into an Agreement with the General Contractor to perform Work at the Project site.
An entity that is performing work under contract for a higher tier contractor. Subcontractor must have a signed agreement to proceed with the Work.

Work

Operations as fully described in the Agreement, performed at or emanating directly from the Project site.

Vendor/Supplier

A person or entity that supplies materials or equipment for work, including that fabricated to a special design, but who does not perform labor at the site.

10

Frequently Asked Questions about OCIPs

What is the reason for having an OCIP?

To establish greater stability in insurance coverage for RTD FasTracks and enrolled parties, engaging a major insurer whose financial stability suggests that it will still be there to cover claims when and if they occur.
To unify and centralize the insurance resources available to support job-site safety and claim management as well as quality control inspections. The OCIP will concentrate a greater amount of money for these important services.
To alleviate the adversarial relationship between enrolled parties and RTD FasTracks at the time of a completed operations claim, allowing the claim to be defended and settled in a proactive manner, reducing claim costs for all enrolled parties.
To reduce the cost and redundancy of insurance associated with construction.

As an enrolled party, how will this affect my costs?

The net cost effect should be about even. Under an OCIP, your insurers should exclude the risks insured by the OCIP, thus reducing your insurance premiums by the amount your insurers would otherwise charge you for the job.
You could lose dividend values, if you have a workers' compensation dividend plan. But dividends are not guaranteed, so presumably you do not figure them into the bid.
You will be the beneficiary of a highly focused safety and claims management plan that should result in better than average loss experience. To the extent this safety and claims management program has a positive influence on your loss experience, which would reflect in an improved experience modifier for you in future years.

How can I be sure my insurer will not charge me for the OCIP risk?

You will need to notify your insurers of the OCIP, through your agent or directly, giving a description of the risk and OCIP coverage.
Then it will be important for you to keep your books to reflect payroll allocated to the OCIP Project so that workers' compensation auditors from both your own insurer and the OCIP insurer can take the payroll audit accurately.

The same will apply to the general liability insurance, though the basis of your premium charge may not be payroll -- it could be receipts or some other measure of exposure.
If you have questions about these issues as the bidding and work proceed, your broker, agent or underwriter should be able to identify the distinction. If not, we will be very happy to assist you in identifying the issues and, if needed, facilitating communication with your insurers.

Will Project safety requirements impair work efficiency?

All enrolled parties are expected to comply with the Safety Manual and all regulatory requirements. If your company is committed to safety, work efficiency should not be affected. Unsafe practices will not be tolerated and may be cause for dismissal from the project. Assistance is available should a question or concern arise regarding safe operating practices.

How about "Claims Management?" How will it help me?

Claims Management will oversee a thorough investigation of every serious accident. The causes will be clearly understood, to the extent they can be known, and will allow for proper preparation of defense against possible future litigation.
The relevant statistical outcome of actual loss experience will be shared with the enrolled parties, thus identifying patterns and causation that would otherwise not be seen. That will add strength to your loss prevention efforts.
Claim cost containment programs will be used, which reduces claim costs. From an historical and statistical perspective, a strong, integrated safety and claims management plan, produces better than average loss experience in most OCIP projects all across the country. That benefits every enrolled party.

Is there completed operations coverage beyond the completion of my work?

Yes, there is a completed operations extension period built into the OCIP.

Will the OCIP hurt my chances of getting or keeping competitive rates?

Of itself, no. If a major portion of your work is in insured by “OCIP's”, they can reduce the premium size of your non-OCIP sales and payroll, thus reducing schedule or other credits.
Your success in safety will have a lot to do with your attractiveness as a workers' compensation account in the near future. Insurers will be looking for risks with good safety records.

What about my WC modifier? How will the OCIP losses affect it?

Your OCIP loss and payroll experience will be reported to the National Council for Compensation Insurance, the same way your regular insurer reports your other loss and payroll data. If the OCIP safety and loss containment efforts are meaningful for your operation, the loss ratio should be slightly better for OCIP losses, thus reducing your future modifier.

Marsh USA Inc.
1225 17th Street, Suite 2100
Denver, CO 80202

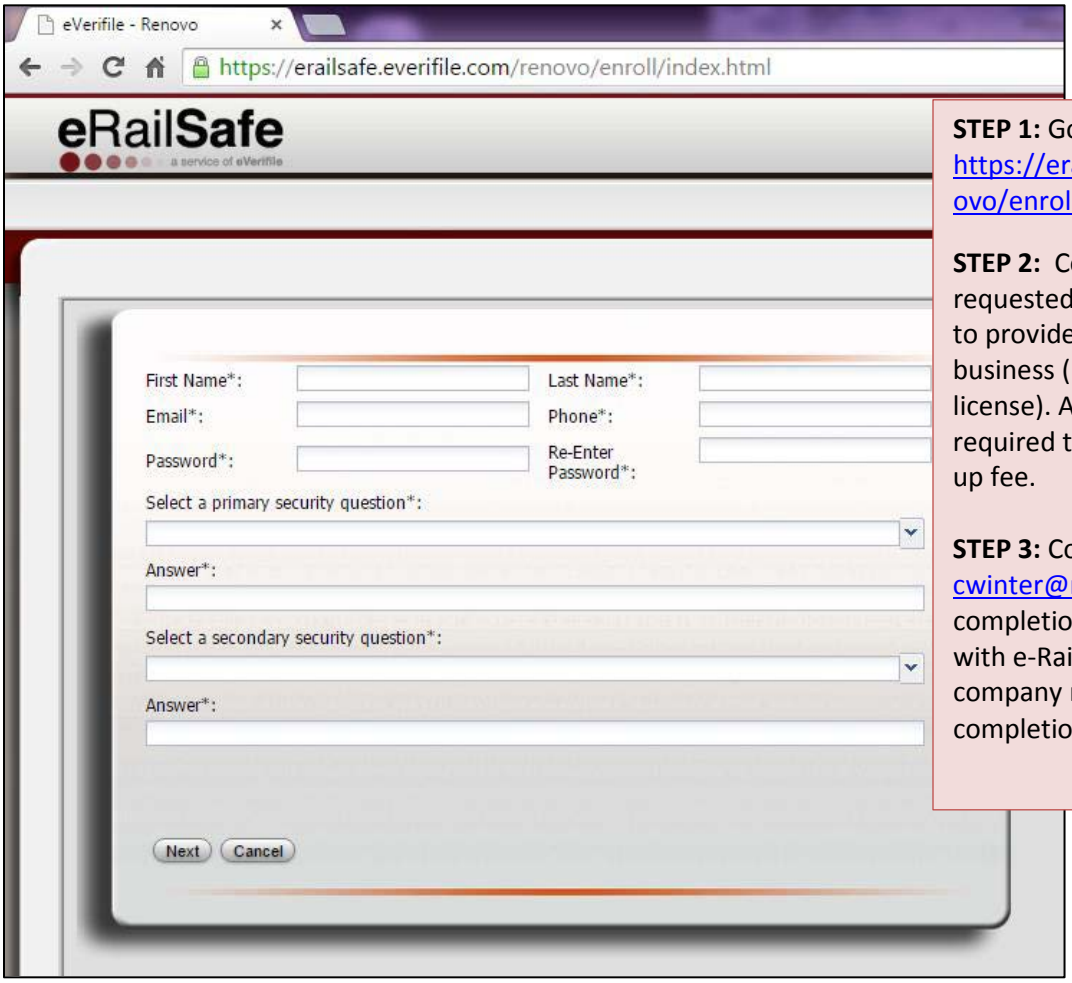
Marsh & McLennan Companies

Appendix 2

RRP E-Rail Safe and RWP Certification Website Instruction

The North Metro Rail Project (NMRL) has railroad safety certification requirements in place that meet Federal regulations for Class 1 Railroads, which includes the railroads Union Pacific Railroad and BNSF which are within the Project area. Prior to setting foot on the Railroad Right-of-Way, there are two separate certification requirements which must be met; e-Railsafe and Contractor Orientation. Both certifications must be completed and cards must be in-hand and carried with personnel at all times.

1.0 e-RailSafe Account Set-up



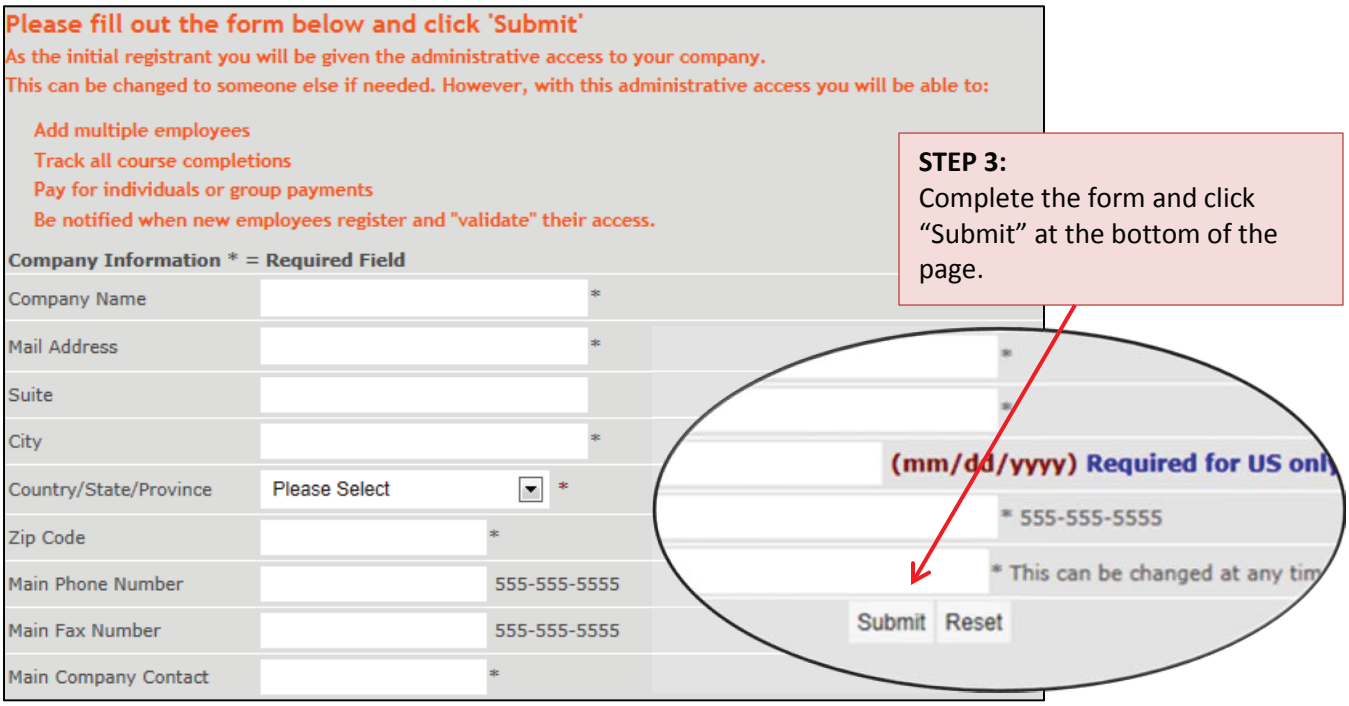
STEP 1: Go to https://erailsafe.everifile.com/renovo/enroll/index.html

STEP 2: Complete the information requested. This step will request to provide information on your business (ie, address, business license). A credit card will be required to pay the initial $99 set-up fee.

STEP 3: Contact Cyndi Winter at cwinter@rrpjv.com upon completion, to verify your account with e-Rail. Provide her with your company name and date of completion.

e-Railsafe FAQ's:
https://www.e-railsafe.com/help/rsFAQ.html

2.0 Contractor Orientation Account Set-up



STEP 3:
Complete the form and click "Submit" at the bottom of the page.

STEP 4:
After the account is setup and employees have successfully completed the course, the badge will be mailed to you via US Mail.

STEP 5:
Once the badge has been received, please scan and e-mail to the RRP Railroad Safety Certification Coordinator.

3.0 Working on Railroad Right-of Way (ROW)

Prior to starting work on the Union Pacific or BNSF ROW, the e-RailSafe and Contractor Orientation cards **must** have been received and e-mailed to RRP for Project Record. The certification cards must be carried with personnel at all times while working in the Railroad ROW area. Failure to comply can cause in a large fine imposed by the railroads.

Appendix 3

RRP Sub-Contractor HSE Pre-Qualification Form

	Contractor HSE Pre-Qualification Form	
REGIONAL RAIL PARTNERS A Balfour Beatty / GRAHAM JOINT VENTURE	HSE-FRM-008	Rev.05/29/13

GENERAL INFORMATION

Company Name:		Telephone Number:	
		Fax Number:	
		E-mail Address:	
Street Address:		Remittance Address:	
Province/State:	Postal Code/Zip Code:	Province/State:	Postal Code/Zip Code:
How many years has your organization been in business under your present firm name?			
Previous name of firm (if applicable):			

Contact For	Name	Phone	Email
Primary Information			
Bid Purposes			
HSE Purposes			

ORGANIZATION

Describe Services Performed: ☐ Construction ☐ Construction Design ☐ Maintenance ☐ Personnel and Resources ☐ Drilling	☐ Original Equipment Manufacturer/Installer ☐ Original Equipment Manufacturer/Maintenance ☐ Project Maintenance Service Work (Janitorial, Clerical, etc.) ☐ Production ☐ Other

Describe Additional Services Performed:

List other types of work within the services you normally perform that you subcontract to others, including brokers:

Describe any affiliations with labour organizations. (include copies of collective agreements)_____

Annual Dollar Volume for the Past Three Years:	20	20	20	Largest Job During the Last Three Years:
Over $10 Million	☐	☐	☐	_____
$1 mil to $10 Million	☐	☐	☐	
$100,000 to $1 Million	☐	☐	☐	

Under $100,000	☐	☐	☐	
Your Firm's Desired Project Size:	Maximum:		Minimum:	

COMPANY WORK HISTORY

Major Jobs in Progress:

Customer/Location	Type of Work	Size $M	Customer Contact	Telephone	Fax

Major Jobs Completed in the Past Three Years:

Customer/Location	Type of Work	Size $M	Customer Contact	Telephone	Fax

HEALTH , SAFETY AND ENVIRONMENT MANAGEMENT

Highest ranking HSE professional in your organization: Name: Telephone: Email:	Qualifications: CRSP ☐ CHSC ☐ CET ☐ ROH ☐ NSCO ☐ P. Eng ☐ Trade Cert ☐ Other ☐

Do you have or will you provide:

- A full-time Health, Safety and Environment representative? Yes ☐ No ☐
- A full-time on site Health, Safety and Environment representative? Yes ☐ No ☐

On site HSE representative for the duration of work: Name: Telephone: Email:	Qualifications: CRSP ☐ CHSC ☐ CET ☐ ROH ☐ NSCO ☐ P. Eng ☐ Trade Cert ☐ Other ☐

Has any employee been barred from working on any site as a Supervisor, Foreman, or Project Manager due to Health, Safety and Environmental issues? Yes ☐ No ☐

HEALTH, SAFETY AND ENVIRONMENT PERFORMANCE

This Section must include all Subcontractor Injury Statistics in combination with your Company's Performance

Your WCB number:	Industry code:

From the last three years :		20	20	20
• Your Industry Premium Rate?				
• Your Industry Rate Adjustment %?				
• Surcharge or Discount?				
• Employers' Premium Rate?				
• Number of fatalities?				
• Number of lost time accidents? (LT)				
• Number of days lost				
• Number of medical aid injuries? (MA)				
• Number of first aid injuries?				
Exposure hours worked including subcontractors	Field Hours			
	Total Hours			
• Total Recordable Incident Frequency? (TRIF)				
• Lost Time Incident Frequency? (LTIF)				
• Severity rate?				

Calculation: T**RIF** = (# MA + # LT) x 200,000 / Exposure Hours (Field) **LTIF** = # LT x 200,000 / Exposure Hours (Field) **Severity** = LT days x 200,000 / Exposure Hours (Field)

Have you been cited, charged, or prosecuted for any Occupational Health & Safety non-compliance or Environmental Offense in the last three years? Yes ☐ No ☐

If Yes, give details:

Has your company ever been prosecuted for an Environmental offense/issued with a stop order by or from a Government regulatory agency? Yes ☐ No ☐

If Yes, give details:

Is your company capable of identifying all hazardous wastes that may be used or encountered during this work? Yes ☐ No ☐

Will your company provide MSDS' for all controlled products used on site? Yes ☐ No ☐

Is your company aware of the Government and legal requirements required for the disposal of any of these Hazardous Wastes that may be encountered during this work? Yes ☐ No ☐

HEALTH , SAFETY AND ENVIRONMENT PROGRAM AND PROCEDURES

Do you have a written Health, Safety and Environment MS/Program? Yes ☐ No ☐

Does the program address the following key elements:

- Accountabilities and responsibilities for managers, supervisors, and employees? Yes ☐ No ☐
- Employee participation? Yes ☐ No ☐
- Hazard recognition and control? Yes ☐ No ☐

- Management commitment and expectations? Yes ☐ No ☐
- Periodic Health, Safety and Environment performance appraisals for all employees?
- Yes ☐ No ☐
- Resources for meeting Health, Safety and Environment requirements? Yes ☐ No ☐
- Supervisor & Employee Training? Yes ☐ No ☐
- Safety Meetings and Communications? Yes ☐ No ☐

Does the program include Safe Operating Practices and Plans such as:

- Incident Reporting? Yes ☐ No ☐
- First Aid Log Completion? Yes ☐ No ☐
- Modified Work Program/Medical Accommodation Program? Yes ☐ No ☐
- Compressed Gas Cylinder Handling? Yes ☐ No ☐
- Confined Space Entry? Yes ☐ No ☐
- Assured Grounding Program? Yes ☐ No ☐
- Emergency Preparedness, including an Evacuation Plan? Yes ☐ No ☐
- Equipment Lockout and Tag Out (LOTO)? Yes ☐ No ☐
- Fall Protection? Yes ☐ No ☐
- Housekeeping? Yes ☐ No ☐
- Personal Protective Equipment (PPE)? Yes ☐ No ☐
- Portable Electrical/Power Tools? Yes ☐ No ☐
- Powered Industrial Vehicles (cranes, forklifts, JLGs, scissor lifts, etc.)? Yes ☐ No ☐
- Unsafe Condition Reporting? Yes ☐ No ☐
- Vehicle Safety? (i.e. Defensive Driving) Yes ☐ No ☐
- Field Level Risk Assessment? Yes ☐ No ☐
- Craning/Rigging/Lifting? Yes ☐ No ☐
- Scaffolding? Yes ☐ No ☐
- Hot Work and Fire Prevention? Yes ☐ No ☐

Do you have written programs for the following:

- Hearing Conservation? Yes ☐ No ☐
- Respiratory Protection? Yes ☐ No ☐

  Where applicable, have employees been:

  Respirator Fit Tested? Yes ☐ No ☐

  Trained in use of RPE? Yes ☐ No ☐
- WHMIS? Yes ☐ No ☐

Do you have a Substance Abuse Policy? Yes ☐ No ☐

If yes, does it include the following:

- Site Access? Yes ☐ No ☐
- Pre-employment? Yes ☐ No ☐
- Testing for Cause? Yes ☐ No ☐

Does your program comply with the "Canadian Model"? Yes ☐ No ☐

Medical:

Do you conduct medical examinations for:

- Pre-employment? Yes ☐ No ☐
- Pulmonary function testing? Yes ☐ No ☐
- Hearing? Yes ☐ No ☐
- Vision? Yes ☐ No ☐

Do you have personnel trained to perform First Aid and CPR? Yes ☐ No ☐

Do you hold documented site Health, Safety and Environment meetings for:

- Employees? Yes ☐ No ☐ Frequency:
- Field Supervisors? Yes ☐ No ☐ Frequency:
- New Hires? Yes ☐ No ☐ Frequency:
- Subcontractors? Yes ☐ No ☐ Frequency:

Personal Protection Equipment (PPE):

Is applicable PPE provided for employees? Yes ☐ No ☐

Do you have a program to ensure PPE is inspected and maintained? Yes ☐ No ☐

Do you have a corrective action process for addressing individual Health, Safety and Environment performance deficiencies? Yes ☐ No ☐

Equipment and Materials:

- Do you maintain a list of the major equipment (e.g., cranes, forklifts, JLGs) your company has available for work at this site, and the method of establishing the competencies to operate this equipment? Yes ☐ No ☐
- Do you conduct inspections on operating equipment (e.g., cranes, forklifts, JLGs, etc.) in compliance with the regulatory requirements? Yes ☐ No ☐
- Do you have a system for establishing the applicable Health, Safety and Environmental specifications for the acquisition of materials and equipment? Yes ☐ No ☐
- Do you maintain operating equipment in compliance with the manufacturer's and local legislative requirements? Yes ☐ No ☐

  Do you maintain the applicable inspection and maintenance certification records for operating equipment? Yes ☐ No ☐

Subcontractors:

Do you evaluate the ability of subcontractors to comply with applicable Health, Safety and Environment requirements as part of the selection process? Yes ☐ No ☐

Do you include your subcontractors in:

- Audits? Yes ☐ No ☐
- Health, Safety and Environment Meetings? Yes ☐ No ☐
- Health, Safety and Environment Orientation? Yes ☐ No ☐
- Inspections? Yes ☐ No ☐
- Do your subcontractors have a written Health, Safety and Environment MS/Program?

Yes ☐ No ☐

Do you use Health , Safety and Environment performance criteria in the selection of subcontractors?
Yes ☐ No ☐

HEALTH , SAFETY AND ENVIRONMENT TRAINING

Health, Safety and Environment Orientation Program:	New Hires		Supervisors	
	Yes	**No**	**Yes**	**No**
• Do you have a Health, Safety and Environment Management Orientation Program for new hires and newly hired or promoted supervisors?	☐	☐	☐	☐
• Does this program provide instruction on the following:	☐	☐	☐	☐
• Emergency Procedures?	☐	☐	☐	☐
• Fire Protection and Prevention?	☐	☐	☐	☐
• First Aid and CPR Procedures?	☐	☐	☐	☐
• Incident Investigation?	☐	☐	☐	☐
• Refusal to Work?	☐	☐	☐	☐
• Safe Work Permits & Practices?	☐	☐	☐	☐
• Personal Protective Equipment use?	☐	☐	☐	☐
• Supervisors Responsibility?	☐	☐	☐	☐
• Toolbox Meetings?	☐	☐	☐	☐
• WHMIS Training?	☐	☐	☐	☐
• Field Level Risk Assessment?	☐	☐	☐	☐
• Confined Space?	☐	☐	☐	☐
• How long is the orientation program?	☐	☐	☐	☐
	Hours		Hours	

Trade Training:

- Are employees' job skills certified, where required, by regulatory or industry consensus standards? Yes ☐ No ☐
- Have employees been trained in the appropriate job skills? Yes ☐ No ☐
- Are operators licensed and/or certified to operate the equipment used? Yes ☐ No ☐
- Have your employees completed CSTS or an Industry specific equivalent? Yes ☐ No ☐

List crafts which have been certified:

Health, Safety and Environment Training Program:

- Do you have a specific Health, Safety and Environment Training Program for supervisors?
  Yes ☐ No☐
- Do you know the regulatory Health, Safety and Environment training requirements for your employees?
  Yes ☐ No ☐
- Have your employees received the required Health, Safety and Environment training and retraining?

Yes ☐ No ☐

Training Records:

- Do you have Health, Safety and Environment and craft-specific training records for your employees? Yes ☐ No ☐
- Do the training records include the following:
  - Date of Training? Yes ☐ No ☐
  - Employee Identification? Yes ☐ No ☐
  - Method Used to Verify Understanding? Yes ☐ No ☐
  - Name of Trainer? Yes ☐ No ☐
- How do you verify understanding of the training?(*Check all that apply)*
  - ☐ Job Monitoring
  - ☐ Oral Test
  - ☐ Performance Test
  - ☐ Written Test
  - ☐ Other (List)

Inspections and Audits:

Are corrections of the deficiencies documented? Yes ☐ No ☐

- Do you conduct Health, Safety and Environment inspections? Yes ☐ No ☐

How often?

- Do you conduct Health, Safety and Environment Management Program audits? Yes ☐ No ☐

How often?

INFORMATION SUBMITTAL

Note: Copies of the following information must be returned in conjunction with this Form.

No.	Records, Statements or Forms	
1.	A copy of your HSE Management System Program	
2.	Certificate of Recognition within the last three years.	
3.	WCB certificate, affidavit, or letter of compliance (dated within the last three months).	
4.	An inventory (list) of job specific work practices and procedures related to your work activities.	
5.	A one-page sample of your safety training records.	
6.	A one-page outline of your Employees & Supervisor Health , Safety and Environment Training program.	
7.	A one-page outline of your employee Job Site Health, Safety and Environment Orientation.	

8.	A one-page sample of a completed Employer's OH&S First Aid Log (Names should be blacked out).	
9.	A sample of a completed Incident Form.	
10.	A sample of an employee Modified Work Offer with Supervisor/Management approval section.	
11.	A sample of a completed Hazard Assessment Form.	
12.	A sample of a completed Field Level Risk Assessment.	
13.	A sample of a completed HSE Planned Inspection Report Form.	
14.	A sample of Equipment Inspection and Materials Inspection Form(s) with a deficiency notification to client section.	
15.	A one-page schedule of your employee Health, Safety and Environment Meetings and Scheduled Topics.	
16.	A copy of your Alcohol & Drug Policy.	
17.	A copy of your Environmental Policy.	
18.		
19.		
20.		
21.		

By signing this form I certify that the attached information is correct.

SIGNATURES REQUIRED

Senior Contractor Representative	Title and Telephone Number:	Signature
Contractor HSE Representative	Telephone Number:	Signature

Appendix 4

RRP Sub-Contractor HSE Pre-Qualification Evaluation Form

Contractor HSE Pre-Qualification Evaluation	
HSE-FRM-010	03/20/13

1st Evaluation Date:_____ Re-evaluation Date: _____

Introduction: This section represents the Contractor HSE MS/Program as submitted by the Contractor.

Contractor: _____

Type of work: _____

Attention: _____

Address: _____

_____

Reviewed by: _____

Date reviewed: _____

The Contractor must address the following criteria, to be placed on the GRAHAM Approved Contractor List. The areas to be addressed are the minimum requirements.

Does the subcontractor have any fatalities (last 3 years): ☐ yes ☐ no _____Number

Does the subcontractor have any LTIs (last 3 years): ☐ yes ☐ no _____Number

Does the subcontractor have a TRIF of less than 1.0: ☐ yes ☐ no _____Number

TRIF for last 3 years (by year): _____ _____ _____

20_____ 20_____ 20_____

Does the subcontractor have any MAs (last 3 years): ☐ yes ☐ no

_____ _____ _____

20_____ 20_____ 20_____

WCB rate adjustment for the last 3 years (% increase or decrease):

_____ _____ _____

20_____ 20_____ 20_____

Requirement	Criteria Met	Signed	Documentation (Forms)
General Safety Policies	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a
Comments:			
Hazard Assessment Policy / Procedure	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a
Comments:			

Requirement	Criteria Met	Signed	Documentation (Forms)
Safe Operating Practices	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a
Comments:			
Job Procedures	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a
Comments:			
Rules and Regulations	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a
Comments:			
Personal Protective Equipment Policy	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a
Comments:			
Maintenance Policy/Procedures	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a
Comments:			
Training Policies	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a
Comments:			
Inspection Policies and Information	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a
Comments:			
Incident Investigation Policies and Information	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a
Comments:			

Requirement	Criteria Met	Signed	Documentation (Forms)
Emergency Provisions	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a
Comments:			
Reports and Management Information	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a
Comments:			
Environmental Policy	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a
Comments:			
HSE Meetings/Tailgate Meetings	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a
Comments:			
Commitment to Client Statement of Values	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a
Comments:			
D&A program for site access, post incident/reasonable suspicion	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a
Comments:			
CSTS	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a
Comments:			
New Worker / Mentoring Program	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a
Comments:			

Requirement	Criteria Met	Signed	Documentation (Forms)
FLRA/Hazard Recognition Program	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a
Comments:			
BBS Program	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a	☐ yes ☐ no ☐ n/a
Comments:			
Upon review of your company's HSE MS/Program further information is required: (If "yes" complete HSE-FRM-011 Contractor Conditional HSE Approval) ☐ yes ☐ no			
Comments:			
Upon re-evaluation of your company's HSE MS/Program additional information is required: ☐ yes ☐ no			
Comments:			
HSE MS/Program approved: ☐ YES – Green Light – acceptable HSE MS / Safety Program and acceptable statistical performance rating (TRIF 1.00) Project Manager approval required ☐ CONDITIONAL – Yellow Light – components of HSE MS / Safety Program, do not meet Graham HSE MS requirments and or statistical performance rating at an unacceptable level (TRIF above 1.00-4.00) Operations Manager approval required ☐ NO – Red Light – failure to complete Contractor HSE Prequalification Form, HSE MS / Safety Program does not meet requirement of Graham HSE MS and or statistical performance rating unacceptable (TRIF above 4.00 – higher) GM or VP approval required			
Comments:			

Appendix 5

RRP Visitor Orientation Checklist

Visitor Orientation Checklist - Waiver of Liability & General Release

Orientation Topics	Yes	No	N/A
1. Site Hazards			
2. Security Rules for Access/Egress, Sign/Out			
3. Personal Protective Equipment Requirements			
4. Emergency Procedures/Signals/Numbers			
5. First Aid Supply Locations			
6. Site Evacuation Procedures			
7. Reporting Incidents and/or Near Misses			
8. Client Specific visitor rules if applicable			
9. Rules of Movement on site:			

☐ Accompanied by _____

☐ Not Accompanied - Special Instructions/Directions _____

In consideration for being granted permission to enter the RTD FasTracks construction site (the "Premises"), I, on behalf of myself, my spouse my children, my parents, my heirs, representatives, executors and/or assigns (the "Releasing Parties"), release, covenant not to sue, forever discharge, and agree to indemnify and defend RTD and its, directors, officers, independent contractors, agents, employees, successors, and assigns (the "Released Parties"), from any and all claims, liabilities, liens, causes of action, losses, judgments, costs, expenses, attorneys' fees, demands, obligations, or damages, whether known or unknown, of any nature whatsoever, arising from or related to any loss or injury (including death) to the Releasing Parties regardless of the cause of such loss or injury.

I have been advised of and fully understand the risks and dangers associated with entering the Premises. I voluntarily assume all risks of injury to my person (including death) and property that may be sustained by entering. This Liability Waiver/Release ("Release") shall be governed by and construed in accordance with the laws of the State of Colorado, and is intended to be interpreted in the broadest possible manner in favor of the Released Parties. I (a) have read this Release, (b) understand its content, (c) am over the age of 18, (d) sign this Release voluntarily and intend for it to be legally binding, and (e) acknowledge that I have had an opportunity and was advised to seek guidance from counsel regarding this Release.

Visitor Name (Print) _____

Visitor Name Signature_____

RRP Representative_____

Appendix 6

RRP Hot Work Permit

REGIONAL RAIL PARTNERS
A Balfour Beatty / GRAHAM JOINT VENTURE

HOT WORK PERMIT

Form 905-130 Rev. 07/2006

Project Name: _____ **Location of Work:** _____
Date/Time Issued:_____ **Date/Time Expires:** _____
Specific Permit for: _____ ☐ **General Permit:** ☐
Permit Holder Contractor/Trade:_____
Project Superintendent: _____

Hot Work Guidelines:

- Hot work is defined as *any work process that involves the use of flame, produces sparks, or application of hot tar*. Heaters require special considerations (see Guidelines below).
- The Project Superintendent and the Permit Holder are responsible to ensure all fire prevention and hot work guidelines are met.
- The Hot Work Permit must be completed, returned to the Project Superintendent or Permit Authority, Reviewed & Authorized, and finally reviewed with workers ***before*** the Hot Work begins.

Work Planned / Equipment Used:

☐ Cutting or Grinding ☐ Welding ☐ Soldering ☐ Propane ☐ Heaters ☐ Temp. Lighting
☐ Torch-applied Roofing ☐ Oxygen ☐ Oxy-acetylene (with flashback arrestors) ☐ Thawing

Safety Precautions Taken/Procedures Implemented:

☐ Fire Extinguisher (Size/Type: _____) ☐ Fire Blankets
☐ **Fire Watch** ☐ **End of Task Hot Spot Monitoring** ☐ Sprinkler System
☐ Final Check after Work Completed Scheduled at: _____ by _____
☐ Water Hose in Service ☐ Housekeeping ☐ PPE
☐ Removal of Combustibles ☐ Protective Barricades ☐ Cleaned &/or Purged
☐ Wetted down ☐ Covered with Damp Sand, Metal, or other Shields
☐ Gas Testing ☐ Written Fire Emergency Protocol ☐ Fuel Storage 11m away
☐ Permit Reviewed with Workers (sign page 2 of permit)
☐ **Workers Trained in Safe Work Procedures (list):** ☐ Welding & Cutting ☐Oxy-acetylene ☐ Work at Height
☐ Heaters ☐ Hot/Cold Weather ☐ Compressed Gas Cylinders ☐ Torch-applied Roofing
☐ Other: _____

Safety Checklist:

☐ Fire Emergency Procedure in place and fire truck access to site maintained at all times.

☐ All fire hydrants must be accessible and operational prior to the start of and during framing activities.

☐ Fire Watch used and area checked for hot spots during and for at least 30 minutes after hot work completed or during periodic breaks. Check frequently for 1.5 hours after completion of work.

☐ Fire Watch/Workers are knowledgeable and aware of how to respond/report emergencies and understand emergency evacuation procedures. Fire watch trained in the use of and provided with fire extinguishing equipment.

☐ Fire extinguishers are inspected monthly and immediately removed from service if discharged or fail inspection. Any removed fire extinguisher must be replaced immediately.

☐ All equipment checked and in good repair.

☐ Openings covered to prevent sparks and material cuttings from entering intake openings, vents, closed areas or floor above/below/adjacent.

☐ Work area/adjacent areas cleaned of all portable combustibles (minimum 10 metres from work or adjoining areas). Enclosed areas cleaned and purged of flammable liquids/vapours or combustibles.

☐ Metal guards, fire retardant blankets, barricades, or similar protection used to prevent hot metal and sparks from falling on non-removable combustible material.

☐ If reasonable and practicable, immediate area hosed down with water.

☐ Suitable fire fighting equipment (applicable size/type fire extinguisher, water hose, etc.) is close at hand (within 6 meters of each worker using hot work equipment). Fire extinguisher must be present both at the

bottom and the top of Access Equipment. Extinguishers must comply with applicable fire codes/regulations and certification must be current.

- ☐ No open flame, air-forced heaters are permitted in the interior of any building. Any other temporary heater must be positioned on fire-resistant drywall board and tied off to a wall or floor with no less than 1.5 meters of clear space around it. Procedure in place to ensure turned off at the end of shift. (Note: dry air heaters are recommended.)
- ☐ Inspect temporary lighting daily. Use correct bulb size for light fixture. Ensure bulb does not come into contact with plastic protective cage.
- ☐ Workers are using PPE appropriate to the work they are doing.
- ☐ Turn off gas at cylinder and exhaust hoses after burning is complete. Store bottles outside of building, secured and separated appropriately.
- ☐ For single unit housing complex, every 7th house to remain unframed (i.e., maintain a fire break), until the exterior of the two adjacent houses are complete and the roof fully shingled.
- ☐ Combustible waste & debris removed from building at the end of each work day. Waste and debris removed regularly from the site.
- ☐ Fence/secure area to prevent unauthorized access until construction complete. Light area at night.
- ☐ Hot Work Permit becomes invalid or void at the end of the shift or after any emergency stop work. Permit must be re-issued for new shift or after a stop work.

Additional Safety Reminders/Responsibilities:

_____

_____

_____

I understand the Permit requirements and have been trained in all applicable procedures:

Print Name & Sign	**Contractor/Subcontractor**

Signatures:

I have checked the Permit and understand the nature and extent of the work and the precautions to be followed in performing the job **(Print Name & Sign)**:

Permit Issuer: _____

Project Superintendent: _____

Permit Holder: _____

Job Completion:

The Hot Work is complete and the area has been cleaned up and checked for hot spots (Print Name & Sign)**:**

Project Superintendent: _____

Permit Holder: _____

Date/Time: _____

Appendix 7

RRP "Grab & Go" Incident Reporting Form

REGIONAL RAIL PARTNERS
A Balfour Beatty / GRAHAM JOINT VENTURE

FAX or EMAIL

DATE		Time		# of Pages (including cover)	
ATTENTION				FAX #	
COMPANY				REFERENCE	
FROM				Project Name	

GRAB & GO

Incident Reporting Instructions

- ❑ 1. Ensure the safety and security of the individual(s) that were injured or involved, other people on site, the public, and the project.
- ❑ 2. Take photos of the accident scene and the surrounding area immediately.
- ❑ 3. Contact your Regional Safety Professional *immediately*.
- ❑ 4. Contact _____ in the _____ office at , cellular (_____) _____-_____ *within 2 hours of any incident*.
- ❑ 5. Complete the entire GRAB & GO packet thoroughly. You have a maximum of 24 hours to complete the Grab & Go – *at the end of 24 hours email all documents* to _____ at _____ *regardless of completeness*.
- ❑ 6. Ask the treating physician to provide sample medications or offer to purchase over-the-counter medications instead of prescriptions for minor injuries such as small lacerations or puncture wounds.
- ❑ 7. Before leaving the doctor's office, obtain the PHYSICIAN'S RELEASE/WORK STATUS and the JOB ANALYSIS/WORK RECOMMENDATIONS REPORT from the clinic/hospital doctor after each doctor's visit.
- ❑ 8. If necessary, identify a modified job that meets the physician's requirements.
- ❑ 9. Post-Incident drug / alcohol testing completed?
- ❑ 10. If serious; permanent injury; fatality or serious third party incident then legal counsel for RRP & RTD must be notified immediately. Contact your Safety Manager/Director.
- ❑ 11. Regional Safety Professional or designee will forward Incident reports to Safety Manager/Director.
- ❑ 12. Assure employees completing report(s) are literate. Assist as necessary.

Incident Investigation

Report Prepared By: _____ Phone Number: _____

Date of Report: _____ ❑ Contacted ( ) - , Cell ( ) -

❑ Contacted Regional Safety Professional

1 Project Information:

Region: _____

Jobsite Name: _____ Job No.: _____

Address: _____

Contractor: _____ Contractor Supervisor/Superintendent(s): _____

Contractor Foreman: _____ Supervisor/Superintendent(s): _____

Foreman: _____ Safety Manager/Director: _____

2 Employee/Incident Information:

Employee Name: _____ SS#: _____ DOB: _____

Address: _____

Employee #: _____ Phone Number: _____

Date of Hire: _____ Job Title: _____ Wage $ _____ per Hour

Years in Occupation: _____ Shift Start Time: _____ End Time: _____

Exact location of incident: _____

General activity at time of incident (i.e., Concrete): _____

Specific task at time of incident (i.e., Finishing): _____

#3 Injury/Illness or Incident Information:

Date of Incident: _____ Day of Week: _____ Time of Incident: _____

Date reported to BBII: _____, to whom at BBII? _____

Is subcontractor or other persons involved __Y __N If yes, what company _____

Type of Injury: _____ Part of body injured: _____

Was first aid given onsite? ❑ Yes ❑ No If Yes, by whom: _____

Was employee taken to a medical facility offsite? ❑ Yes ❑ No Date: _____

Treating Facility & Phone Number: _____

Transported by: ❑ Ambulance ❑ Company Vehicle ❑Private Vehicle Name of driver: _____

Employee returned to: ❑ Regular Work ❑ Modified Work If not, estimated return date: _____

Employee's Supervisor: _____ Working on a Crew? ❑ Yes ❑ No If yes, Crew size: _____

Was a JHA or Pre-task plan made for the work being performed at the time of the incident? ❑ Yes ❑ No If yes, Please attach

Incident Designation

❑ First Aid Incident ❑ Recordable Incident ❑ Lost Time Incident ❑ Property Damage

❑ Near-Miss Incident ❑ Equipment Incident ❑ Third Party Incident ❑ Motor Vehicle Incident

❑ Report Only ❑ Other (explain) _____

Post Incident Drug / Alcohol testing completed?

❑ Yes ❑ No

If no, please provide reason: _____

_____

_____

Substance testing completed by: _____

Claim Information:

❑ Claim being processed ❑ Suspicious Claim ❑ Unknown Claim (completely unaware of the incident)

Reasons why this is a suspicious claim:

Insurance Company:	Reported To:
Claim #:	Date Reported:

#5 Description of the Incident **(not to be completed by the injured worker)**:

NOTE: This does not take the place of a witness statement. Describe in detail the circumstances of the incident (attach diagrams, drawings and/or photos of accident scene). Give a chronological sequence of events. If materials and/or equipment were involved, start before the materials/equipment were brought to the incident scene describing who, what, where, when, how: _____

_____

_____

_____

_____

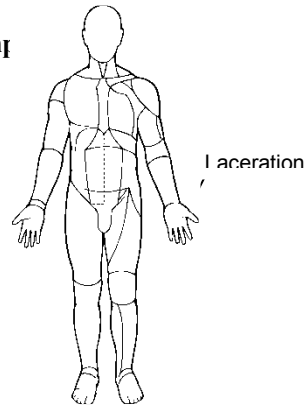
_____

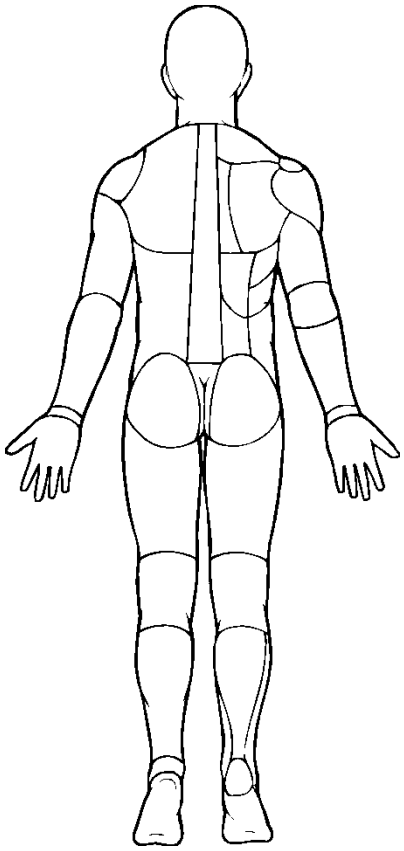
_____

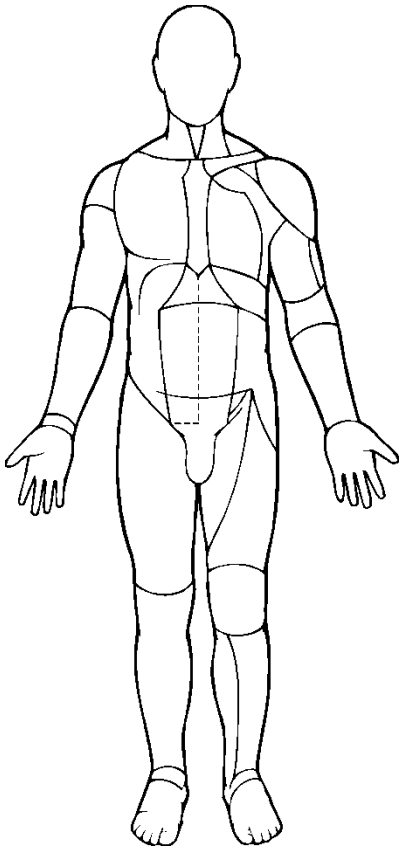
_____

Please indicate the location of all incurred injuries and describe the type of injury. For example, for a laceration to the right palm – shade the right hand palm and write laceration next to it connected

Exam







6 Additional Information:

Name of witnesses and others working with injured worker (attach witness statements): _____

_____

_____

Object, substance, equipment involved in incident (desc/model/serial #): _____

_____

List PPE worn at time of incident: _____

Safety equipment, PPE & training required for job: _____

_____

Does employee normally operate this equipment? ❑ Yes ❑ No

Was employee instructed in the safe use of this equipment? ❑ Yes ❑ No When/How? – (*Describe in detail & Attach copies of equipment certifications*) _____

_____

Was any defect with the equipment noted or reported prior to accident/incident? ❑ Yes ❑ No

Was any recent maintenance/service performed on this equipment? ❑ Yes ❑ No If yes, when/what – Describe & attach copies of invoices/work orders? _____

_____

_____

Were standard work procedures followed? ❑ Yes ❑ No If no, why not – Describe in detail, attach additional sheets if necessary and attach a copy of the standard site procedures? _____

_____

_____

Was a safety rule or specific instruction violated? ❑ Yes ❑ No If yes, what – Describe in detail, attach additional Sheets if necessary and attach a copy of the rule/regulation? _____

_____

_____

When/How was this rule, regulation or specific instruction communicated to the injured worker(s)? _____

_____

_____

When was the last safety meeting conducted?_____ When was the last jobsite audit conducted?_____

Attach copies of last safety meeting agenda w/sign-in sheet and last jobsite audit including corrective actions.

#7 Signatures, Injured Worker's:_____ _____

Print Name *Signature*

Foreman: _____ _____

Print Name *Signature*

Safety Manager/Director: _____ _____

Print Name *Signature*

Supervisor/Superintendent: _____ _____

Print Name *Signature*

Injured Worker's Statement of Incident

I _____ am submitting this statement made on _____
(Employee/Witness Name) (Date)
to _____ for Balfour Beatty. I am submitting this statement
(Name)
of my own free will. I have not been coerced or threatened in any way to submit this statement.

Consider the following items in your statement and write them in the area provided below:

- What happened? Tell a story.
- Where were you when the incident took place?
- What activity were you performing prior to the incident/event?
- What do you believe happened?
- Any other information or details

If you have any questions or need assistance in completing this report, please ask your supervisor.

Statement: _____

(Continue statement on next page if necessary)

If you were injured in the incident, have you ever injured this body part before? ❑ Yes ❑ No

I, _____, permit Balfour Beatty Infrastructure, Inc. and it's agents to perform investigations, interviews, and any other activities necessary to process my claim. This authorization includes, but is not limited to: reviewing, requesting, and copying past and present medical and employment records to process my current Worker's Compensation claim.

Employee signature: _____ I have received a copy of this statement: ❑ Yes ❑ No

Today's date: _____ Time: _____

Employer: _____

Direct Supervisor / Title: _____

Employee Home Address: _____

Employee Home Phone: _____ Cell: _____

Injured Worker's Statement of Incident (cont.)

Supervisor Statement

(i.e., Lead, Foreman, Supervisor in control of task)

I _____ am submitting this statement made on _____
(Employee/Witness Name) (Date)
to _____ for Balfour Beatty. I am submitting this statement
(Name)
of my own free will. I have not been coerced or threatened in any way to submit this statement.

Consider the following items in your statement and write them in the area provided below:

- What happened? Tell a story.
- Where were you when the incident took place?
- What activity was being performed prior to the incident/event?
- What do you believe happened?
- Any other information or details

Statement:

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Supervisor signature: _____

Supervisors initials that they have received a copy of this statement: _____

Today's date: _____ Time: _____

Employer: _____

Home Address: _____

_____

Home Phone: _____Cell: _____

Employee / Witness Statement

I _____ am submitting this statement made on _____
(Employee/Witness Name) (Date)
to _____ for Balfour Beatty. I am submitting this statement
(Name)
of my own free will. I have not been coerced or threatened in any way to submit this statement.

Consider the following items in your statement and write them in the area provided below:

- What happened? Tell a story.
- Where were you when the incident took place?
- What activity was being performed prior to the incident/event?
- What do you believe happened?
- Any other information or details.

If you have any questions or need assistance in completing this report, please ask your supervisor.

Statement:

Employee/Witness signature: _____

Employee/Witness initials that they have received a copy of this statement: _____

Today's date: _____

Employer: _____

Home Address: _____

_____

Home Phone: _____ Cell: _____

Employee / Witness Statement

I _____ am submitting this statement made on _____
(Employee/Witness Name) (Date)
to _____ for Balfour Beatty. I am submitting this statement
(Name)
of my own free will. I have not been coerced or threatened in any way to submit this statement.

Consider the following items in your statement and write them in the area provided below:

- What happened? Tell a story.
- Where were you when the incident took place?
- What activity was being performed prior to the incident/event?
- What do you believe happened?
- Any other information or details.

If you have any questions or need assistance in completing this report, please ask your supervisor.

Statement:

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Employee/Witness signature: _____

Employee/Witness initials that they have received a copy of this statement: _____

Today's date: _____

Employer: _____

Home Address: _____

_____

Home Phone: _____Cell_____

Employee/Witness Statement

I _____ am submitting this statement made on _____
(Employee/Witness Name) (Date)
to _____ for Balfour Beatty. I am submitting this statement
(Name)
of my own free will. I have not been coerced or threatened in any way to submit this statement.

Consider the following items in your statement and write them in the area provided below:

- What happened? Tell a story.
- Where were you when the incident took place?
- What activity was being performed prior to the incident/event?
- What do you believe happened?
- Any other information or details.

If you have any questions or need assistance in completing this report, please ask your supervisor.

Statement:

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Employee/Witness signature: _____

Employee/Witness initials that they have received a copy of this statement: _____

Today's date: _____

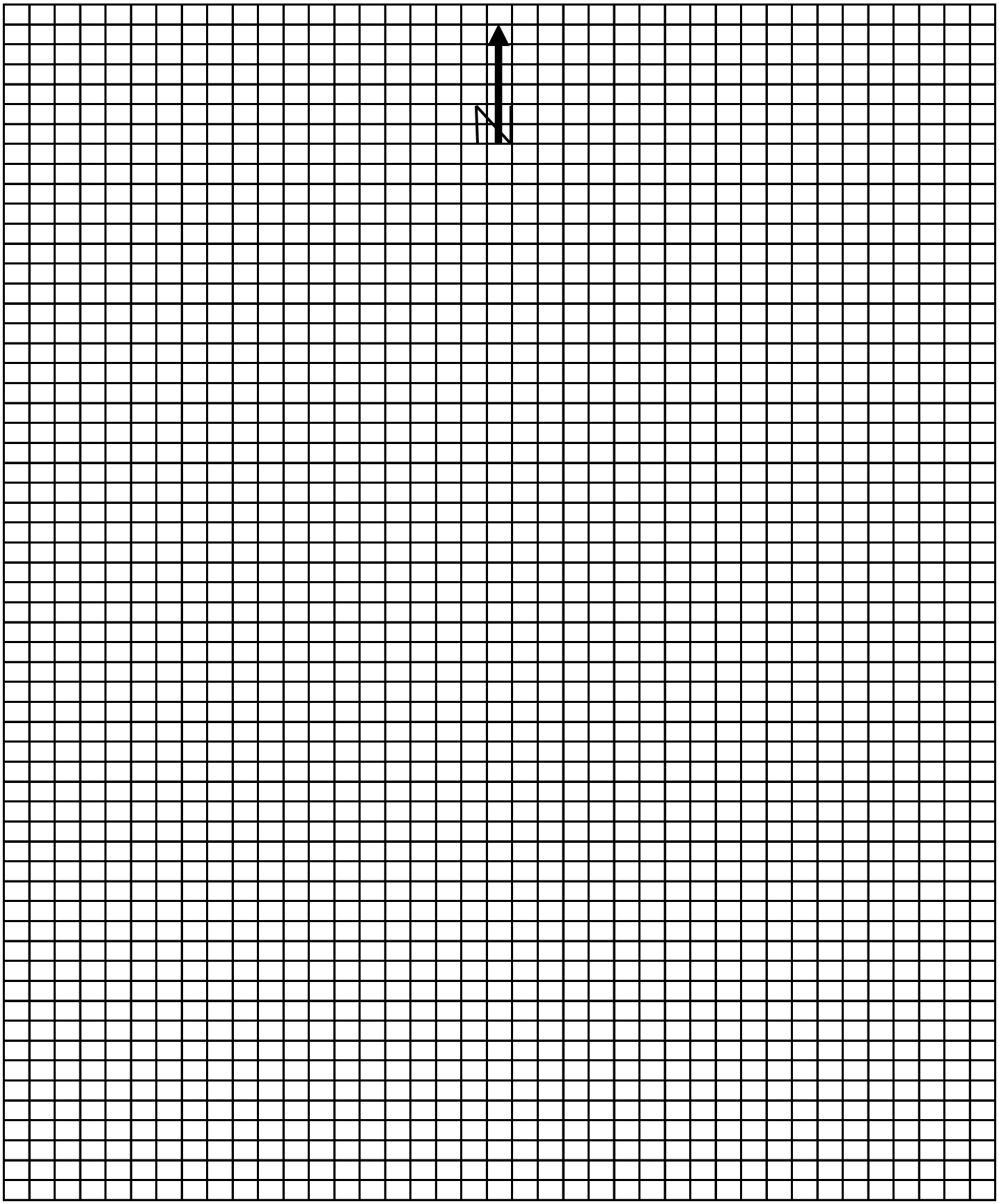
Employer: _____

Home Address: _____

_____

Home Phone: _____ Cell _____

INCIDENT DIAGRAM



ZERO Harm Basic Causal Analysis Summary

1. What's the Problem(s)

a. Describe supervisory/management Involvement: (PM. Supt., Foremen, EHS Professional)
b. Describe any Unsafe Acts and/or Conditions

2. Why did the Incident / Accident Happen? (The causes)

a. Was there a communication break-down? If yes, why?

3. What specifically should be done to prevent similar incidents / accidents?

a. Was a (JHA / AHA / JSA) completed for this task / operation? Yes / No (circle). If No, describe why. If Yes, attach document.

Authorization for Medical Treatment

Contact Information:

Claims Manager:
Phone: ( ) -
Cellular: ( ) -
Fax: ( ) -

Injured Employee Information:

Name of Injured Employee _____

Employer _____

Craft (Trade) _____

Date of Hire _____/ /_____

Date/Time of Injury _____/ /_____ AM/PM

Body Part _____

Type of Injury _____

Authorization Signature:

Project Manager _____, or

Project Supervisor _____, or

Safety Professional: _____

NOTE TO THE TREATING FACILITY:
Balfour Beatty has a "Return To Work" program. All injured workers will be returned to work within the treating physician's guidelines. Please contact ( ) - for all modified work cases, and be prepared to indicate how long the injured worker is anticipated to be under the treating physician's prescribed limitations.

PAYMENT:
Send all First Aid incident invoices directly to at
Balfour Beatty Infrastructure, Inc.

To ensure rapid payment, please have the treating physician complete the following:
1. *Sign a release regarding whether the injured employee is to perform regular work or modified work*
2. *Complete the attached "Job Analysis / Work Recommendations" form for each visit*
3. *Fax copies of both documents to ( ) -*

Return To Work Program – Section I

Balfour Beatty has developed a program designed to assist workers who are **temporarily** disabled due to a work related illness or injury. This program is called the "Return to Work Program." This includes a team effort, including disabled workers, their attending physician, the insurance carrier, and project management.

Studies shows that return to work programs are therapeutic and help speed the recovery process. In addition, injured employees stay "in touch" with the work environment and with fellow employees, which helps to facilitate a smooth and speedy transition back to their normal job. This also creates an opportunity for cross training and developing new skills.

Everybody "wins" with this type of program. The company wins by retaining the use of valuable trained employees while at the same time minimizing workers' compensation and other costs. Employees win by returning to their regular job and income sooner, and by avoiding the negative effects of a long-term absence.

When employees report illnesses or injuries, they will be given certain forms and may be taken to a doctor for examination and/or treatment. A separate Job Analysis/Work Recommendations form must be completed for each separate doctor visit to help us ensure the greatest degree of health and safety. If the doctor determines that the employee qualifies for our Return to Work Program, the doctor will complete the appropriate forms indicating the restrictions and conditions for transitional work. **We will then attempt to provide a modified work position until the employee is able to resume full duties**. All modified work is temporary in nature and is designed to facilitate a return to full duties as soon as possible. Modified work positions may be offered at any project, and/or any shift. Modified work positions can also be offered on a varied schedule.

Failure to report for work at the designated time and place will be regarded as a voluntary resignation and could affect your time loss compensation and/or reemployment/reinstatement rights.

This is not designed as a substitute for reasonable accommodation under any applicable federal and/or state regulations, such as the Americans with Disabilities Act, The Rehabilitation Act 1973 or other applicable laws.

To preserve the ability to meet company needs under changing conditions, we reserve the right to revoke, change or supplement these guidelines at any time with or without written notice. No permanent employment for any term is intended or can be implied by this policy. But, while in effect, all doctor recommended restrictions will be followed. The site management and the claims manager, on a two-week basis or after a doctor's visit, will review with the worker the availability of continued modified work.

The policies and procedures in this program are not intended to be contractual commitments and they shall not be construed as such. This policy is not intended as a guarantee of continuity of benefits or rights.

*Injured employee's initial here, indicating that they understand the above:*_____

Return to Work Program – Section II

Employee Responsibilities

When an employee has an on-the-job accident or injury, or serious near miss, it must be reported immediately to a supervisor/foreman. Failure to do so could result in your claim being delayed or denied.

If no injury has occurred or professional medical assistance is not required, you and your supervisor/foreman must complete an incident investigation report by the end of your work shift.

If an injury does occur, you must follow the emergency response procedure and complete a Workers' Compensation First Report of Injury form within 24 hours with your supervisor. If your injury requires immediate emergency medical care, the First Report of Injury should be completed as soon as possible following the injury.

You must inform your physician that there are modified/light-duty jobs available, and provide him with a Job Analysis/Work Recommendations form for each separate doctor's visit.

Once your doctor releases you to return to work (temporary, part-time, modified work or regular duties), you must report to work immediately if possible, or the next scheduled shift, and inform your supervisor/foreman in charge of any physical restrictions or conditions. **You must** provide a written update on your condition by the next business day. You cannot return to work without a release from your doctor.

If you are unable to report for any kind of work, you must call in every Monday, between the hours of 7:30 a.m. and 9:30 a.m. (unless otherwise arranged) to your site Safety Supervisor/superintendent or other designated person to report your status. If you are unable to bring in the information, you should call your supervisor/foreman and then mail in the written information.

It is also your responsibility to supply your supervisor/foreman or BB Personnel with your current telephone number (unlisted or not) and an address where you can be reached.

NOTE: Follow-up appointments are to be scheduled no earlier than one hour before the end of the shift to help accommodate the project schedule.

I have read and fully understand all of the above procedures, and know my responsibilities. I understand that failure to complete my responsibilities as stated above may result in disciplinary action up to and including termination from my job and/or loss of my right to re-employment or reinstatement following injury. I have received a copy of this information.

Employee's Signature Date

Job Analysis/Work Recommendations

NOTICE TO PHYSICIAN: We have a Return to Work Program because there are many benefits to returning our injured employees to work as soon as possible following injury. Please provide the following information to help us determine if suitable, modified work is available, based on your specific recommendations.

WORKER: _____

EMPLOYER: Balfour Beatty Infrastructure, Inc. PHONE NUMBER: ( ) -
ADDRESS: FAX NUMBER: ( ) -
CONTACT PERSON:

JOB TITLE: _____ DURATION: Up to 14 days – subject to periodic review
JOB DUTIES: _____

PHYSICAL WORK REQUIREMENT / TEMPORARY PHYSICAL ABILITIES (*No comment means no restrictions*)

Physical

Lift	Never 0 %	Occasional 33%	Frequent 45-66%	Continual 67-100%
1 to 10 pounds				
11 to 20 pounds				
21 to 50 pounds				
51 to 75 pounds				
76 to 100 pounds				
Carry				
1 to 10 pounds				
11 to 20 pounds				
21 to 50 pounds				
51 to 75 pounds				
76 to 100 pounds				
Push				
1 to 10 pounds				
11 to 20 pounds				
21 to 50 pounds				
51 to 75 pounds				
76 to 100 pounds				
Pull				
1 to 10 pounds				
11 to 20 pounds				
21 to 50 pounds				
51 to 75 pounds				
76 to 100 pounds				

	Never 0 %	Occasional 33%	Frequent 45-66%	Continual 67-100%
Bend				
Twist				
Crouch				
Kneel				
Crawl				
Walk-Level Surface				
Walk-Uneven Surface				
Climb Stairs				
Climb Ladder				
Reach Above Shoulder				
Use Arms				
Use Wrists				
Use Hands				
(a) Grasping				
(b) Squeezing				
Operate Foot Control				

Environment

Inside				
Outside				
Heat				
Cold				
Dusty				
Noisy				
Other				

Length of time anticipated at these limitations? _____ Date of anticipated MMI/P&S? _____

Physician's Comments: _____

_____ / / ____ _____ / / ____
Physician's Signature Date Employer's Representative Signature Date

_____ / / ____
Employee's Signature Date

Notice/Offer of Employment

Date: _____
Date of Injury: _____

Dear _____:

Your physician has released you for modified work. We have identified a position for you with duties that Dr. _____ feels that you will be able to perform until you are able to return to your normal work duties.

Your position will be as follows:

Job Title: _____ Duration: Up to 14 days - subject to review

Job Description (Based on the attached – physician approved – job analysis): _____
_____
_____
_____
_____

You will be receiving $_____ / per hour, the workers' compensation insurance company may supplement your wages with workers' compensation benefits.

We ask that you report for work on:

Date: _____ Hours Per Day: _____
Time:_____ Days Per Week: _____
Location: _____ Duration of Job: Will be subject to periodic review
Phone: _____ and cannot exceed 14 days ____
Report to: _____

If you received this letter on or after the day you are to report to work, please contact our office immediately and report to work within 24 hours from the date you receive this letter. Failure to report to work could affect you time loss compensation, vocational eligibility and/or re-employment / reinstatement rights.

We look forward to seeing you and wish you a speedy recovery.

_____
(Employer's Signature) (Date)

- ❑ I have reviewed and accept this modified work position as offered.
- ❑ I decline this modified work position.

_____
(Worker's Signature) (Date)

California only

State of California
Department of Industrial Relations
DIVISION OF WORKERS' COMPENSATION

Estado de California
Departamento de Relaciones Industriales
DIVISION DE COMPENSACIÓN AL TRABAJADOR

EMPLOYEE'S CLAIM FOR WORKERS' COMPENSATION BENEFITS

If you are injured or become ill because of your job, you may be entitled to workers' compensation benefits.

Complete the "**Employee**" section and give the form to your employer. Keep the copy marked "**Employee's Temporary Receipt**" until you receive the dated copy from your employer. You may call the Division of Workers' Compensation at **1-800-736-7401** if you need help in filling out this form or in obtaining your benefits. An explanation of workers' compensation benefits is included on the back of this form.

You should also have received a pamphlet from your employer describing workers' compensation benefits and the procedures to obtain them.

Any person who makes or causes to be made any knowingly false or fraudulent material statement or material representation for the purpose of obtaining or denying workers' compensation benefits or payments is guilty of a felony.

PETICION DEL EMPLEADO PARA BENEFICIOS DE COMPENSACIÓN DEL TRABAJADOR

Si Ud. se ha lesionado o se ha enfermado a causa de su trabajo, Ud. tiene derecho a recibir beneficios de compensación al trabajador.
*Complete la sección "**Empleado**" y entregue la forma a su empleador. Quédese con la copia designada "**Recibo Temporal del Empleado**" hasta que Ud. reciba la copia fechada de su empleador. Si Ud. necesita ayuda para completar esta forma o para obtener sus beneficios, Ud. puede hablar con la Division de Compensación al Trabajador llamando al **1-800-736-7401**. En la parte de atrás de esta forma se encuentra una explicación de los beneficios de compensación al trabajador.*

Ud. también debería haber recibido de su empleador un folleto describiendo los beneficios de compensación al trabajador lesionado y los procedimientos para obtenerlos.

Toda aquella persona que a propósito haga o cause que se produzca cualquier declaración o representación material falsa o fraudulenta con el fin de obtener o negar beneficios o pagos de compensación a trabajadores lesionados es culpable de un crimen mayor "felonia".

Employee:
Empleado:

1. Name. *Nombre.* _____ Today's Date. *Fecha de Hoy.* _____
2. Home Address. *Dirección Residencial.* _____
3. City. *Ciudad.* _____ State. *Estado.* _____ Zip. *Código Postal.* _____
4. Date of Injury. *Fecha de la lesión(accidente).* _____ Time of Injury. *Hora en que ocurrió.* _____ a.m. p.m.
5. Address and description of where injury happened. *Dirección/lugar dónde occurió el accidente.* _____
6. Describe injury and part of body affected. *Describa la lesión y parte del cuerpo afectada.* _____
7. Social Security Number. *Número de Seguro Social del Empleado.* _____
8. Signature of employee. *Firma del empleado.* _____

Employer—complete this section and give the employee a copy immediately as a receipt.
Empleador—complete esta sección y déle inmediatamente una copia al empleado como recibo.

9. Name of employer. *Nombre del empleador.* _____
10. Address. *Dirección.* _____
11. Date employer first knew of injury. *Fecha en que el empleador supo por primera vez de la lesión o accidente.* _____
12. Date claim form was provided to employee. *Fecha en que se le entregó al empleado la petición.* _____
13. Date employer received claim form. *Fecha en que el empleado devolvió la petición al empleador.* _____
14. Name and address of insurance carrier or adjusting agency. *Nombre y dirección de la compañía de seguros o agencia administradora de seguros.* _____
15. Insurance Policy Number. *El número de la póliza del Seguro.* _____
16. Signature of employer representative. *Firma del representante del empleador.* _____
17. Title. *Titulo.* _____ 18. Telephone. *Teléfono.* _____

Employer: You are required to date this form and provide copies to your insurer or claims administrator and to the employee, dependent or representative who filed the claim within **one working day** of receipt of the form from the employee.

SIGNING THIS FORM IS NOT AN ADMISSION OF LIABILITY

Empleador: *Se requiere que Ud. feche esta forma y que provéa copias a su compañía de seguros, administrador de reclamos, o dependiente/representante de reclamos y al empleado que hayan presentado esta petición dentro del plazo de **un día hábil** desde el momento de haber sido recibida la forma del empleado.*

EL FIRMAR ESTA FORMA NO SIGNIFICA ADMISION DE RESPONSABILIDAD

DWC Form 1 (REV. 1/94)

DWC Forma 1 (REV. 1/94)

WC 8222b (Ed. 1-94) UNIFORM PRINTING & SUPPLY, INC.

Original (Employer's Copy)/(Copia del Empleador)

California only

WORKERS' COMPENSATION BENEFITS

Medical Care. All medical care for your work injury or illness will be paid for by your employer or employer's insurance company. Medical benefits may include treatment by a doctor, hospital services, physical therapy, lab tests, x-rays, and medicines. Your employer or employer's insurance company will pay the cost directly so you should never see a bill.

Payment for Lost Wages. If you can't work because of a job injury or illness, you will receive "temporary disability" benefit payments. The payments will stop when your doctor says you are able to return to work. These benefits are tax-free. Temporary disability payments are two-thirds of your average weekly pay, up to a maximum set by state law. Payments are not made for the first three days you are off the job unless you are hospitalized or cannot work for more than 14 days.

Payment for Permanent Disability. If the injury or illness results in a permanent handicap, permanent disability benefit payments will be paid after recovery. The amount of benefits will depend on the type of injury, and your age and occupation.

Rehabilitation. If the injury or illness prevents you from returning to the same type of job, you may qualify for "vocational rehabilitation benefits". These benefits include services to help you get back to work. If you qualify for vocational rehabilitation, the costs will be paid by your employer or employer's insurance company, up to a maximum set by state law.

Death Benefits. If the injury or illness causes death, payments may be made to relatives or household members who were financially dependent on the worker.

Disclosure of Medical Records. After you make a claim for workers' compensation benefits, your medical records will not have the same privacy that people usually expect for medical records. Records of all medical treatment you have received, even for injuries or illnesses that are not caused by your work, may be read by a variety of people. If you do not agree to voluntarily release medical records, they can be "subpoenaed" and ordered to be released. A workers' compensation judge may "seal" (keep private) certain medical records if the worker requests privacy.

For More Information. If you need help filling out this form, or if you have questions about workers' compensation benefits, please call an Information and Assistance Officer in the local office of the Division of Workers' Compensation. You may hear recorded information and a list of local offices by calling this toll free number: **1-800-736-7401.** This is a free service of the State of California. You may also consult an attorney.

BENEFICIOS DE COMPENSACIÓN AL TRABAJADOR

Cuidado Médico. *Todo el cuidado médico por su lesión o enfermedad causada en el trabajo será pagado por su empleador/patrón o su compañía de seguros. Los beneficios médicos pueden incluír tratamiento por un doctor, servicios de hospital, fisioterapia, análisis de laboratorio, rayos-x, y medicamentos. Su empleador o la compañía de seguros de su empleador pagará directamente el costo, así Ud. nunca tendrá que ver una cuenta.*

Pago por Pérdida de Sueldos. *Si Ud. no puede trabajar debido a una enfermedad o lesión causada en el trabajo, Ud. recibirá pagos de beneficio de "incapacidad temporal". Los pagos se detendrán cuando su médico indique que Ud. puede volver a su trabajo. Estos beneficios son libres de impuestos. Los pagos por incapacidad temporal son dos-tercios del promedio de su pago semanal, hasta un máximo asignado por la ley del estado. No se efectúa pago por los tres primeros días que Ud. esta incapacitado a menos que Ud. este hospitalizado o no pueda trabajar por mas de 14 días.*

Pagos por Incapacidad Permanente. *Si los resultados de la lesión o enfermedad producen un impedimento o incapacidad permanente, se efectuarán pagos de incapacidad permanente después de la recuperación.*

Rehabilitación. *Si la lesión o enfermedad le impide a Ud. volver al mismo trabajo, puede ser que Ud. califique para los "beneficios de rehabilitación vocacional". Estos beneficios incluyen servicios para ayudarlo a que Ud. vuelva a trabajar. Si Ud califica para rehabilitación vocational, los costos serán pagados por su empleador o su compañía de seguros, hasta un maximo asignado por la ley del estado.*

Beneficios de Muerte. *Si la lesión o emfermedad resulta en muerte, los pagos pueden ser efectuados a parientes o a miembros de la familia quienes dependen financieramente del trabajador.*

Revelación de Expedientes Médicos. *Después de que Ud. efectúa un reclamo para beneficios de compensación del trabajador sus expedientes médicos no tendrán la misma privacidad que la gente por lo general espera de los expedientes médicos. Un expediente de todos los tratamientos médicos que Ud. haya recibido, inclusive de lesiones o enfermedades que no hayan sido causadas por su trabajo, pueden ser leídos por distintas personas. Si Ud. no esta de acuerdo a entregar voluntariamente los archivos médicos, pueden ser ordenados en un "comparendo" (orden judicial) y que ordenan su entrega. Un juez de compensaciones al trabajador, puede "cerrar" (mantenidos en privado) ciertos expedientes médicos si el trabajador solicita privacidad.*

Información y Asistencia. *Si Ud. necesita ayuda para completar esta forma, o si Ud. tiene preguntas relacionadas con sus beneficios, por favor póngase en contacto con un Oficial de Información y Asistencia en la oficina local de la División de Compensación al Trabajador. Ud. puede escuchar información grabada y una lista de las oficinas locales llamando gratis al número: 1-800-736-7401. Este es un servicio gratis del Estado de California. Ud. también puede consultar a un abogado.*

Appendix 8

RRP Critical Lift Form

CRITICAL CRANE LIFT PERMIT

Location: Date: Task:

I. CRANE DATA

1) Make & Model # 2) Unit #

3) Crane Type: ☐ Crawler ☐ Truck Mounted ☐ Rough Terrain ☐ Railroad ☐ Other_____

4a) Boom Type: ☐ Telescoping ☐ Fixed Lattice ☐ Tower ☐ Other_____

☐ Angle Cord

☐ Tubular Cord

4b) For Lattice - Type of Tip: ☐ Offset ☐ Tapered ☐ Hammer Head ☐ Other_____

5) Boom Length _____ ft. 6) Jib Model _____

Length _____

7) Counterweight _____ lbs. Offset _____

II. LOAD CAPACITY

Operating by the "seat of the pants" is very dangerous. Never use signs of tipping to determine if a load is within capacity.

8) Exact Load Weight _____ lbs. 9) Size of Load _____

10) Calculate Total Load

Total Load = Exact Load Weight + Rigging

_____ lbs. Exact Load Weight

\+ _____ lbs. Rigging Weight (i.e. shackles, slings, picking beams)

\+ _____ lbs. Main Block

\+ _____ lbs. "Effective" Jib Weight

\+ _____ lbs. Cable

\+ _____ lbs. Headache Ball

\+ _____ lbs. Others _____

\= _____ lbs. Total Load

11) Maximum Load Radius _____ ft. Minimum Load Radius _____ ft.

12) Boom Angle at Max _____ o Boom Angle at Min. _____ o

Total Load from line 10		Divided by crane capacity according to crane chart at Max Radius of Lift		Crane Capacity Percent at Max Radius of Lift
	÷		=	

13) Number of Parts Used _____ 14) Crane Hoist Line Pull _____***lbs***

III. RIGGING

15) Sling Construction: Wire Rope: Dia. Inches _____ # Parts _____

Synthetic: _____ Round Sling ☐

Flat Sling ☐

16) Number of Legs _____

17) Sling Angle _____

18) Load on Sling _____ lbs

19) Rated Sling Capacity _____ lbs

20) S.W.L. of Sling _____ *lbs*
21 Capacity of Fastener, i.e.: Shackle, Picking Eye, etc. _____ *lbs*
22) Capacity of Load Block _____ *lbs*
23) Means of fastening Sling or Hoist Hook to load _____

IV. PRE-LIFT REQUIREMENTS **(All must be answered yes)**

24) _____ Load chart utilized is for exact crane model, boom type & length
25) _____ Competent person in charge of Rigging: **Name:** _____
26) _____ Competent signal person identified: **Name:** _____
27) _____ Pre-pick meeting held with crew.
28) _____ Written crane inspection completed within 1 day of critical lift.
29) _____ Swing path not over personnel.
30) _____ Footing is sound and level - pre-planning for radio or hand signal communications.
31) _____ Minimum clearances from power lines can and will be maintained (Under 50KV – 15' clearance – over 50KV – see Site Specific requirements)
32) _____ The load radius has been measured with tape measure.
33) _____ Wind speed does not exceed 20 mph – consider postponing lifts if speeds are more than 10 mph
34) _____ Load will not touch boom at any time.
35) _____ Tag lines are long enough, tied only to the load, and in good condition – loose end controlled by designated person.
36) _____ Operating locations are far enough away from excavations & trenches and shoring to eliminate risk of collapse.
37) _____ Application of hardwood mats has been carefully considered.
38) _____ Outriggers or crawler tracks are fully extended and wheels are clear of ground.
39) _____ Application of blocking under outrigger pads has been carefully considered.
40) _____ Adequate swing clearance (minimum 2') between the counterweight and any obstacles.
41) _____ Boom composition is correct.
42) _____ No added counterweight.
43) _____ Machine is rigged with adequate type of cable & number of parts of hoist line.
44) _____ Regional Manager and Project Superintendent have discussed lift.
45) _____ Load block is of adequate capacity & sheaves are of proper size for hoist cable.
46) _____ All rigging has been inspected for capacity & condition.
47) _____ Underground structures & conditions have been considered.
48) _____ When static lines are required they must be securely in place.

APPROVAL SIGNATURES	
Operator	Craft Supervisor
HSE Representative	Project Superintendent
Director of Construction	Rigging Engineer *(Lead Rigging Eng. Required for B & C Lifts)*
Project Director (*Signature required for Type 'C' Lifts*)	*Plan Coordinator / Other* _____

Critical Lifts - Equal to or greater than (≥) 75% of crane capacity

Type "A"	Type "B"	Type "C"
Less than 60 tons	60 tons to 600 tons	Greater than 600 tons
Critical Lift Permit	Rigging Drawings required with Critical Lift Permit	
• ≥ 75% of crane capacity and • < 80% crane capacity without LID* or • < 90% crane capacity with LID*	• Lifts by 2 cranes in which the load can be transferred between the cranes (Exception - Lifting a beam)	

Appendix 9

RRP Return to Work Form

Formal Modified Duty Process

Modification, Termination or Suspension of Temporary Disability Benefits Process – Rule 6

The Colorado Worker's Compensation Act, Rules of Procedure, allows a claims representative to terminate/modify temporary disability benefits without a hearing for employees who do not voluntarily return to work. The claims representative files an Admission of Liability Form together with the following information:

> *"A certified letter to the claimant or copy of a written offer delivered to the claimant with a signed certificate of service, containing both an offer of modified employment, setting forth duties, wages and hours and a statement from an authorized treating physician that the employment offered is within the claimant's physical restrictions. A copy of the written inquiry to the treating physician shall be provided to the claimant by the insurer at the time the authorized treating physician is asked to provide a statement on the claimant's capacity to perform the offered modified duty. The claimant is allowed a period of three business days to return to work in response to an offer of modified duty. The three business days run from the date of receipt of the job offer."*
>
> **Workers' Compensation Rules of Procedure, Rule 6(6-1(A)(4))**

To comply with this rule, complete the following steps:

1) Type the ***Letter to Treating Provider*** (see sample letter on page 3) on your company letterhead. Under the Job tasks, list the hours per day and days per week you want your injured employee to work. Then list the actual job tasks the injured worker will perform at your company.

2) Fax or e-mail the above letter to your return-to-work specialist. The return-to-work specialist will forward it to the treating provider for signature, mail a copy to the injured worker, and fax a copy to the injured worker's attorney if he/she has one. If you do not receive a timely response, you may contact the treating provider.

   Note: The signature must be from a licensed treating physician. The licensed physician must cosign signatures from a physician's assistant or nurse practitioner.

3) Once you receive the treating physician's approval, type the ***Certificate of Service Letter*** (see sample letter on page 4) on your letterhead. Complete all the blanks.

   Note: *Certificate of Service* must be signed and dated at least three business days before the injured employee's start date.

4) Hand-deliver the *Certificate of Service Letter* to your injured employee and a copy of the *Letter to Treating Provider* with the physician's approval of modified duty work. Fax copies of both letters to your return-to-work specialist on the same day. The return-to-work specialist will fax a copy to the injured worker's attorney.

5) If you are unable to hand-deliver the *Certificate of Service Letter*, you must type a ***Certified Job Offer Letter*** on your company letter head (see sample letter on page 5). Complete all the blanks.

6) You must send the *Certified Job Offer Letter* via Certified Mail to your injured worker and request a return receipt from the U.S. Postal Service. Also, you must send a copy by regular mail to the worker. Include the certified mailing number on the letter. Include a copy of the *Letter to Treating Provider* with the physician's approval of modified duty work. If the injured worker has an attorney, send a copy of the *Letter to Treating Provider* with the physician's approval of modified duty work and a copy of the *Certified Job Offer* by certified mail. If the worker is in Colorado, allow him/her a minimum of seven business days from the date of certified mailing to report to work. If the injured worker is out-of-state, allow him/her 10 business days from the date of certified mailing to report to work.

7) Remember to make two copies of all mailings - one for your records and one for the insurance carrier – including a copy of the receipt for purchase of the certified letter and the green return receipt card you will receive from the postal service.

Your return-to-work specialist can assist you during this process.

RTD FASTTRACKS

Letter to Treating Provider (Task Letter)

#1

Date:	**TIME SENSITIVE** **URGENT RESPONSE REQUIRED**
Dr.	
Facility:	FAX to:
Address:	Attn:
Fax Number:	Phone:
Re:	
Claim #:	

Dear Dr. **(Insert Physician's Last Name)**:

Our employee, **(Insert injured worker's name)**, is currently unable to perform the work required of **(his/her)** regular job. We do have a temporary position that I have outlined for your reference.

#2

JOB TASKS Work Shift:	8:00 a.m. – 5:00 p.m., Monday - Friday	**List maximum available hours for modified duty**

Please check the activities that **(Insert injured worker's name)** is released to perform.

#3

_____ Purchase parts. Call vendors on the phone to purchase supplies or parts.

_____ Troubleshoot. Provide verbal instructions and advice regarding repair procedures to mechanic and others. May alternate sitting and standing.

_____ Maintain files. Assist with maintaining equipment files and records for each vehicle and piece of equipment. May alternate sitting and standing. Lifting no more than five pounds.

_____ Organize paperwork. Assist with organizing and distributing of daily paperwork, making photocopies of work orders, using a magic marker to cross out various items on orders. May alternate sitting, standing, and walking.

_____ Run errands. Operate automatic transmission vehicle once or twice daily to pick up parts. This job task would require driving for a maximum of 20 minutes at one time and lifting 15 pounds frequently.

Patient is able to perform the tasks checked above.

_____

COMMENTS: _____

_____ _____

Doctor's Signature Date

#4

Cc: Injured worker:	**Include Injured Workers name and address**
Cc: Attorney if appropriate:	**Include Attorney's name and fax number**

RTD FASTTRACKS

Sample Certified Job Offer Letter (Mailed)

#1

Date:

Name of Employee:

Employee Address:

Claim #:

Date of Injury:

Certified Mail
Return Receipt Requested

Certified Mail#:

Proof of Certified Mailing

Dear **(Insert injured worker's name)**:

Your treating physician, Dr. **(Insert Physician's Name)**, has released you to modified work. We have identified a temporary position for you, which your physician states you will be able to perform. Please refer to the attached job task list.

#2

The job is: See Attached. You will receive $ per hour. **Specify dollar amount**

This modified duty job will begin at on . Please report for work on this date and time. **7 business days from date mailed; 10 if out of state.**

Your work schedule is as follows:

#3

Hours/day & days/week:
Report to:
Location:

Work shift as approved by treating physician

Report Time:
Phone:

We look forward to seeing you and wish you a continued speedy recovery.

Sincerely,

_____

Employer Signature

#4

Enc.: Signed copy of Letter to Treating Provider with signature dated **(date physician signed task letter)**

Cc: Injured Worker
Cc: Attorney if appropriate
Cc: Return to Work Specialist

Regular Mail
Certified Mail Number:
Include Injured Worker's name and address
Include Attorney's name and fax number

RTD FASTTRACKS

Sample Certificate of Service Letter (Hand Delivered)

#1

Date:

Name of Employee:

Employee Address:

Claim #:

Date of Injury:

Dear **(Insert injured worker's name)**:

Your treating physician, Dr. **(Insert Physician's Name)**, has released you to modified work. We have identified a temporary position for you, which your physician states you will be able to perform. Please refer to the attached job task list.

#2

The job is: See Attached. You will receive $ per hour. **Specify dollar amount**

This modified duty job will begin at on . Please report for work on this date and time.
Time Date **3 business days from hand delivery.**

Your work schedule is as follows:

#3

Hours/day & days/week: Report to: Location:	**Work shift as approved by treating physician**	Report Time: Phone:

We wish you a continued recovery.

Sincerely,

_____

Employer Signature

Enc.: Signed copy of Letter to Treating Provider with signature dated **(date physician signed task letter)**.

#4

Certificate of Service

I, **Employer or a representative** hereby certify that I hand-delivered the above job offer to on **3 days prior to start date.**

_____ _____

Employer's signature Date
Must be the same
Person listed above.

RTD FASTTRACKS

Letter to Treating Provider (Task Letter)

Date:	**TIME SENSITIVE** **URGENT RESPONSE REQUIRED**
Dr.	
Facility:	FAX to:
Address:	Attn:
Fax Number:	Phone:
Re:	
Claim #:	

Dear Dr._____:

Our employee, _____, is currently unable to perform the work required of his/her regular job.
We do have a temporary position that I have outlined for your reference.

JOB TASKS
Work Shift: _____ - _____, _____ - _____

Please check the activities that **(Insert injured worker's name)** is released to perform.

_____
_____
_____
_____
_____

_____
Employer's Signature

Patient is able to perform the tasks checked above.

COMMENTS: _____

_____ _____
Doctor's Signature Date

Cc: Injured worker:
Cc: Attorney if appropriate:

RTD FASTTRACKS

Certified Job Offer Letter (Mailed)

Date:

Name of Employee:

Employee Address:

Claim #:

Date of Injury:

Certified Mail
Return Receipt Requested

Certified Mail#:

Dear _____:

Your treating physician, Dr. _____, has released you to modified work. We have identified a temporary position for you, which your physician states you will be able to perform. Please refer to the attached job task list.

The job is: See Attached.

You will receive $_____per hour.

This modified duty job will begin at _____ on _____ . Please report for work on this date and time.
Time Date

Your work schedule is as follows:

Hours/day & days/week:
Report to:
Location:

Report Time:
Phone:

We look forward to seeing you and wish you a continued speedy recovery.

Sincerely,

_____

Employer Signature

Enc.: Signed copy of Letter to Treating Provider with signature dated:

Cc: Injured Worker
Cc: Attorney if appropriate

Regular Mail
Certified Mail Number:

Certificate of Service Letter (Hand Delivered)

Date:

Name of Employee:

Employee Address:

Claim #:

Date of Injury:

Dear _____:

Your treating physician, Dr. _____**,** has released you to modified work. We have identified a temporary position for you, which your physician states you will be able to perform. Please refer to the attached job task list.

The job is: See Attached.

You will receive $ per hour.

This modified duty job will begin at on . Please report for work on this date and time.
Time Date

Your work schedule is as follows:

Hours/day & days/week: Report to: Location:	**Work shift as approved by treating physician**	Report Time: Phone:

We wish you a continued recovery.

Sincerely,

_____

Employer Signature

Enc.: Signed copy of Letter to Treating Provider with signature dated _____ .

Certificate of Service

I, **Employer or a representative** hereby certify that I hand-delivered the above job offer to _____ on _____**.**

_____ _____

Employer's signature Date

RTD FASTTRACKS

Appendix 10

RRP Respirator Use Form (Medical Evaluation)

Appendix C to 1910.134:OSHA Respirator Medical Evaluation Questionnaire (Mandatory)

To the employer: Answers to questions in Section 1, and to question 9 in Section 2 of Part A, do not require a medical examination.

To the employee:

Can you read (circle one): Yes No

Your employer must allow you to answer this questionnaire during normal working hours, or at a time and place that is convenient to you. To maintain your confidentiality, your employer or supervisor must not look at or review your answers, and your employer must tell you how to deliver or send this questionnaire to the health care professional who will review it.

Part A. Section 1. (Mandatory) The following information must be provided by every employee who has been selected to use any type of respirator (please print).

1. Today's date:_____

2. Your name:_____

3. Your age (to nearest year):_____

4. Sex (circle one): Male Female

5. Your height: _____ ft. _____ in.

6. Your weight: _____ lbs.

7. Your job title:_____

8. A phone number where you can be reached by the health care professional who reviews this questionnaire

(include the Area Code): _____

9. The best time to phone you at this number: _____

10. Has your employer told you how to contact the health care professional who will review this questionnaire (circle one): .....Yes No

11. Check the type of respirator you will use (you can check more than one category):
a. _____ N, R, or P disposable respirator (filter-mask, non-cartridge type only).
b. _____ Other type (for example, half- or full-facepiece type, powered-air purifying, supplied-air, self-contained breathing apparatus).

12. Have you worn a respirator (circle one): .....Yes No

If "yes," what type(s):_____

Part A. Section 2. (Mandatory) Questions 1 through 9 below must be answered by every employee who has been selected to use any type of respirator (please circle "yes" or "no").

1. Do you currently smoke tobacco, or have you smoked tobacco in the last month: ..... Yes No

2. Have you ever had any of the following conditions?
   - a. Seizures (fits): ..... Yes No
   - b. Diabetes (sugar disease): ..... Yes No
   - c. Allergic reactions that interfere with your breathing: ..... Yes No
   - d. Claustrophobia (fear of closed-in places): ..... Yes No
   - e. Trouble smelling odors (except when you had a cold): ..... Yes No

3. Have you ever had any of the following pulmonary or lung problems?
   - a. Asbestosis: ..... Yes No
   - b. Asthma: ..... Yes No
   - c. Chronic bronchitis: ..... Yes No
   - d. Emphysema: ..... Yes No
   - e. Pneumonia: ..... Yes No
   - f. Tuberculosis: ..... Yes No
   - g. Silicosis: ..... Yes No
   - h. Pneumothorax (collapsed lung): ..... Yes No
   - i. Lung cancer: ..... Yes No
   - j. Broken ribs: ..... Yes No
   - k. Any chest injuries or surgeries: ..... Yes No
   - l. Any other lung problem that you've been told about: ..... Yes No

4. Do you currently have any of the following symptoms of pulmonary or lung illness?
   - a. Shortness of breath: ..... Yes No
   - b. Shortness of breath when walking fast on level ground or walking up a slight hill or incline: . Yes No
   - c. Shortness of breath when walking with other people at an ordinary pace on level ground: ..... Yes No
   - d. Have to stop for breath when walking at your own pace on level ground: ..... Yes No
   - e. Shortness of breath when washing or dressing yourself: ..... Yes No
   - f. Shortness of breath that interferes with your job: ..... Yes No
   - g. Coughing that produces phlegm (thick sputum): ..... Yes No
   - h. Coughing that wakes you early in the morning: ..... Yes No
   - i. Coughing that occurs mostly when you are lying down: ..... Yes No
   - j. Coughing up blood in the last month: ..... Yes No
   - k. Wheezing: ..... Yes No
   - l. Wheezing that interferes with your job: ..... Yes No
   - m. Chest pain when you breathe deeply: ..... Yes No
   - n. Any other symptoms that you think may be related to lung problems: ..... Yes No

5. Have you ever had any of the following cardiovascular or heart problems?
   - a. Heart attack: ..... Yes No
   - b. Stroke: ..... Yes No
   - c. Angina: ..... Yes No
   - d. Heart failure: ..... Yes No
   - e. Swelling in your legs or feet (not caused by walking): ..... Yes No
   - f. Heart arrhythmia (heart beating irregularly): ..... Yes No

g. High blood pressure: ..... Yes No
h. Any other heart problem that you've been told about: ..... Yes No

6. Have you ever had any of the following cardiovascular or heart symptoms?
   a. Frequent pain or tightness in your chest: ..... Yes No
   b. Pain or tightness in your chest during physical activity: ..... Yes No
   c. Pain or tightness in your chest that interferes with your job: ..... Yes No
   d. In the past two years, have you noticed your heart skipping or missing a beat: ..... Yes No
   e. Heartburn or indigestion that is not related to eating: ..... Yes No
   f. Any other symptoms that you think may be related to heart or circulation problems: ..... Yes No

7. Do you currently take medication for any of the following problems?
   a. Breathing or lung problems: ..... Yes No
   b. Heart trouble: ..... Yes No
   c. Blood pressure: ..... Yes No
   d. Seizures (fits): ..... Yes No

8. Has your wearing a respirator caused any of the following problems? (If you've never used a respirator, check the following space __ and go to question 9:)
   a. Eye irritation: ..... Yes No
   b. Skin allergies or rashes: ..... Yes No
   c. Anxiety that occurs only when you use the respirator: ..... Yes No
   d. Unusual weakness or fatigue: ..... Yes No
   e. Any other problem that interferes with your use of a respirator: ..... Yes No

9. Would you like to talk to the health care professional who will review this questionnaire about your answers to this questionnaire: ..... Yes No

Questions 10 to 15 below must be answered by every employee who has been selected to use either a full-facepiece respirator or a self-contained breathing apparatus (SCBA). For employees who have been selected to use other types of respirators, answering these questions is voluntary.

10. Have you ever lost vision in either eye (temporarily or permanently): ..... Yes No

11. Do you currently have any of the following vision problems?
   a. Wear contact lenses: ..... Yes No
   b. Wear glasses: ..... Yes No
   c. Color blind: ..... Yes No
   d. Any other eye or vision problem: ..... Yes No

12. Have you ever had an injury to your ears, including a broken ear drum: ..... Yes No

13. Do you currently have any of the following hearing problems?
   a. Difficulty hearing: ..... Yes No
   b. Wear a hearing aid: ..... Yes No
   c. Any other hearing or ear problem: ..... Yes No

14. Have you ever had a back injury: ..... Yes No

15. Do you currently have any of the following musculoskeletal problems?
   a. Weakness in any of your arms, hands, legs, or feet: ..... Yes No
   b. Back pain: ..... Yes No

c. Difficulty fully moving your arms and legs: ..... Yes No
d. Pain or stiffness when you lean forward or backward at the waist: ..... Yes No
e. Difficulty fully moving your head up or down: ..... Yes No
f. Difficulty fully moving your head side to side: ..... Yes No
g. Difficulty bending at your knees: ..... Yes No
h. Difficulty squatting to the ground: ..... Yes No
i. Difficulty climbing a flight of stairs or a ladder carrying more than 25 lbs: ..... Yes No
j. Any other muscle or skeletal problem that interferes with using a respirator: ..... Yes No

Part B Any of the following questions, and other questions not listed, may be added to the questionnaire at the discretion of the health care professional who will review the questionnaire.

1. In your present job, are you working at high altitudes (over 5,000 feet) or in a place that has lower than normal amounts of oxygen: ..... Yes No
If "yes," do you have feelings of dizziness, shortness of breath, pounding in your chest, or other symptoms when you're working under these conditions: ..... Yes No

2. At work or at home, have you ever been exposed to hazardous solvents, hazardous airborne chemicals (e.g., gases, fumes, or dust), or have you come into skin contact with hazardous chemicals: ..... Yes No

If "yes," name the chemicals if you know them:_____

_____

_____

3. Have you ever worked with any of the materials, or under any of the conditions, listed below:
a. Asbestos: ..... Yes No
b. Silica (e.g., in sandblasting): ..... Yes No
c. Tungsten/cobalt (e.g., grinding or welding this material): ..... Yes No
d. Beryllium: ..... Yes No
e. Aluminum: ..... Yes No
f. Coal (for example, mining): ..... Yes No
g. Iron: ..... Yes No
h. Tin: ..... Yes No
i. Dusty environments: ..... Yes No
j. Any other hazardous exposures: ..... Yes No

If "yes," describe these exposures:_____

_____

_____

4. List any second jobs or side businesses you have:_____

_____

5. List your previous occupations:_____

_____

6. List your current and previous hobbies:_____

7. Have you been in the military services? ..... Yes No
If "yes," were you exposed to biological or chemical agents (either in training or combat): ..... Yes No

8. Have you ever worked on a HAZMAT team? ..... Yes No

9. Other than medications for breathing and lung problems, heart trouble, blood pressure, and seizures mentioned earlier in this questionnaire, are you taking any other medications for any reason (including over-the-counter medications): ..... Yes No

If "yes," name the medications if you know them:_____

10. Will you be using any of the following items with your respirator(s)?
   a. HEPA Filters: ..... Yes No
   b. Canisters (for example, gas masks): ..... Yes No
   c. Cartridges: ..... Yes No

11. How often are you expected to use the respirator(s) (circle "yes" or "no" for all answers that apply to you)?:
   a. Escape only (no rescue): ..... Yes No
   b. Emergency rescue only: ..... Yes No
   c. Less than 5 hours per week: ..... Yes No
   d. Less than 2 hours per day: ..... Yes No
   e. 2 to 4 hours per day: ..... Yes No
   f. Over 4 hours per day: ..... Yes No

12. During the period you are using the respirator(s), is your work effort:

   a. Light (less than 200 kcal per hour): ..... Yes No

If "yes," how long does this period last during the average shift:_____hrs._____mins.
Examples of a light work effort are sitting while writing, typing, drafting, or performing light assembly work; or standing while operating a drill press (1-3 lbs.) or controlling machines.

   b. Moderate (200 to 350 kcal per hour): ..... Yes No

If "yes," how long does this period last during the average shift:_____hrs._____mins.
Examples of moderate work effort are sitting while nailing or filing; driving a truck or bus in urban traffic; standing while drilling, nailing, performing assembly work, or transferring a moderate load (about 35 lbs.) at trunk level; walking on a level surface about 2 mph or down a 5-degree grade about 3 mph; or pushing a wheelbarrow with a heavy load (about 100 lbs.) on a level surface.

   c. Heavy (above 350 kcal per hour): ..... Yes No

If "yes," how long does this period last during the average shift:_____hrs._____mins.
Examples of heavy work are lifting a heavy load (about 50 lbs.) from the floor to your waist or shoulder; working on a loading dock; shoveling; standing while bricklaying or chipping castings; walking up an 8-degree grade about 2 mph; climbing stairs with a heavy load (about 50 lbs.).

13. Will you be wearing protective clothing and or equipment (other than the respirator) when you're using your respirator: ..... Yes No

If "yes," describe this protective clothing and or equipment:_____

14. Will you be working under hot conditions (temperature exceeding 77 deg. F): .....Yes No

15. Will you be working under humid conditions: .....Yes No

16. Describe the work you'll be doing while you're using your respirator(s):

17. Describe any special or hazardous conditions you might encounter when you're using your respirator(s) (for example, confined spaces, life-threatening gases):

_____

_____

18. Provide the following information, if you know it, for each toxic substance that you'll be exposed to when you're using your respirator(s):
Name of the first toxic substance:_____

Estimated maximum exposure level per shift:_____

Duration of exposure per shift_____

Name of the second toxic substance:_____

Estimated maximum exposure level per shift:_____

Duration of exposure per shift:_____

Name of the third toxic substance:_____

Estimated maximum exposure level per shift:_____

Duration of exposure per shift:_____

The name of any other toxic substances that you'll be exposed to while using your respirator:

_____

_____

_____

19. Describe any special responsibilities you'll have while using your respirator(s) that may affect the safety and well-being of others (for example, rescue, security):

_____

_____

Appendix 11

RRP Site Inspection Form

HSE Formal Site Inspection	
HSE-FRM-119	Rev. Date 08/23/13

PROJECT NAME/NUMBER:
AREA TO BE INSPECTED:
INSPECTION DATE:

INSPECTED BY:

TIME OF INSPECTION:

MANAGEMENT (Print/Date/Sign): / /_____

SAFETY (Print/Date/Sign): / /_____

Inspection Guideline
(NOTE: Listed below are examples of what to look for. This list is only a guideline and is not limited to only these items):

- Access/Egress
- Excavations/Trenching
- Housekeeping
- Material Storage
- SOP/JHA Available
- Flagging/Tagging
- Assured Grounding
- Fall Protection (Plan)
- Lighting
- Noise Awareness/ Protection
- Scaffolds
- Barricades
- M.S.D.S/W.H.M.I.S
- Fire Extinguishers/ Prevention
- Load Handling
- Overhead/Underground Hazards
- Security
- Traffic Control
- Electrical Cords
- Emergency Response/ First Aid
- Hoisting and Rigging
- PPE
- Washroom Facilities
- Worker Competency
- Mobile Equipment
- FLRA
- Machine Guarding
- Respiratory Protection
- Lunchrooms
- Environmental Conditions

ITEM (AND LOCATION OF ITEM)	HAZARD LEVEL	# OF TIMES NOTED	ACTION	ACTION BY WHOM	DUE DATE	DATE COMPLETED

ITEM (AND LOCATION OF ITEM)	HAZARD LEVEL	# OF TIMES NOTED	ACTION	ACTION BY WHOM	DUE DATE	DATE COMPLETED

Hazard Level:

SEVERITY (IMPACT)		PROBABILITY 1	2	3
	C	M	H	H
	B	L	M	H
	A	L	L	M

H	High Risk - immediate risk reduction controls required. (Standard, JHA, FLRA)
M	Medium Risk - risk controls must be considered. Appropriate risk controls shall be applied for repetitive occurences. (JHA, SOP, FLRA)
L	Low risk - risk reduction controls may be required. (SOP, FLRA)

Severity:	Probability:
C; Major Incident/Fatality	3: Very Likely
B: Medical Aid/Lost Time	2: Possible/Likely
A: First Aid/Near Miss	1: Unlikely

*** COPIES OF FORMAL SITE INSPECTIONS SHALL BE POSTED AT PROJECT SITE**

Project Management/Site Safety Comments:

SUPERINTENDENT (Print/Date/Sign): / /_____

PROJECT MANAGER (Print/Date/Sign): / /_____

Appendix 12

RRP Confined Space Entry Permit

CONFINED SPACE ENTRY PERMIT

REGIONAL RAIL PARTNERS
A Balfour Beatty / GRAHAM JOINT VENTURE

Form 905-046 Rev. 05/2008

Project Name: _____ **Project Number:** _____ **Permit No:** _____

DATE/TIME: _____ **DATE/TIME PERMIT EXPIRES:** _____

THIS PORTION TO BE COMPLETED BY GAS TESTER (Record Time of each Test at top of Result Column)

What Machine? _____ When Calibrated? _____

TEST	Allowable Limits	Check if Required	Result ___:___AM\PM	Result ___:___AM/PM	Result ___:___AM/PM	Result ___:___AM/PM
Oxygen/Min.	19.5%	☐	_____	_____	_____	_____
Oxygen/Max.	22.5%	☐	_____	_____	_____	_____
Flammability	<10% of LEL	☐	_____	_____	_____	_____
H_2S	C10 ppm*	☐	_____	_____	_____	_____
CO	25 ppm	☐	_____	_____	_____	_____
Other	_____	☐	_____	_____	_____	_____
Other	_____	☐	_____	_____	_____	_____
Other	_____	☐	_____	_____	_____	_____

Continuous Monitoring? ☐ No ☐ Yes If yes, use Form 905-129 or attach/retain monitor tape/log if so equipped

Written testing procedure? ☐ No ☐ Yes Attached? ☐ Yes

Gas Tester Signature: _____ **Print Name:** _____

Witness Signature: _____ **Print Name:** _____

* "C" means "ceiling limit – ceiling limit must not be exceeded at any time during the work period

SAFETY REQUIREMENTS (To be completed by Supervisor responsible for Confined Space Entry)

Contractor: _____ Supervisor: _____

Location: _____ Time Start: _____ Time Finish: _____

Description of Work: _____

Authorized Workers: _____ _____

_____ _____

_____ _____

Hazards Applicable to Space:

☐Oxygen-Deficient Atmosphere ☐Engulfment ☐Entrapment ☐Inerting
☐Oxygen-Enriched Atmosphere ☐Toxic Atmosphere ☐Poor Visibility ☐Leaching
☐Welding/cutting ☐Flammable Atmosphere ☐Slips, trips, & falls ☐External hazards
☐Rescue would be difficult ☐Noise ☐Energized Electric Equipment
☐Unexpected equipment movement ☐Restricted access/egress ☐Hazardous Chemical ☐Line Entanglement
☐Equipment in space: _____

Safety Precautions (provide details in written safe work procedure):

☐SCBA ☐Respirators ☐Safety Harness/Lifelines ☐Retrieval ☐Signs Posted
☐Air-line Respirator (SABA) ☐Cleaning, Purging, Inerting ☐Grounded ☐Clearance Secured
☐Auxiliary Air Supply ☐Headlamp or Flashlight ☐Explosion-proof ☐Confined Space Tag
☐Flame Resistant Clothing ☐Lockout/Tagout (see p. 2) ☐Emergency Respirator ☐Lighting
☐Welding Compressed Gas Cylinders are **NOT** in space and secured properly ☐Air Testing ☐Written SWPs
☐Ventilation (_____) ☐Fire Extinguishers (_____) ☐Ground Fault Interrupter
☐Protective Gloves &/or ☐Clothing ☐Barricades ☐Protect from external hazards ☐Rescue Procedure
☐Other PPE/safety requirements: _____

CONFINED SPACE ENTRY PERMIT

REGIONAL RAIL PARTNERS
A Balfour Beatty / GRAHAM JOINT VENTURE

Form 905-046 Rev. 05/2008

☐ Training requirements: _____

☐ Remarks: _____

Watchman's Name: _____ Sign: _____ Date/Time: _____

Communication System: _____

_____

Coordination of Work Activities: _____

Lockout Required? Yes ☐ No ☐ If **YES**, attach Procedure and Permit as applicable. ☐

Mechanical: _____ Electrical: _____

Piping: _____ Other: _____

Rescue Procedure and Equipment: _____

_____

Rescue/Safety Standby Equipment: _____

_____

Safe Work Procedures: _____

_____

WORKERS HAVE BEEN INFORMED OF DUTIES AND SAFE WORK PRACTICES AND PROCEDURES. ALL SAFETY MEASURES ARE IN PLACE. ***Workers must sign form.*** ☐

Permit and task-specific procedures reviewed &/or prepared by CSE qualified, competent person. ☐ **Yes**

Name/Signature of Competent Person: _____ **Date/Time:** _____

Signatures

Supervisor: _____ **Foreman:** _____ **Date/Time:** _____

Date/Time: _____

I have been informed of my duties and understand the safe work practices and procedures put in place for this task. I will use the appropriate personal protective equipment and follow safe work practices and procedures.

WORKER NAMES & SIGNATURES:

☐ **ENTRY PERMIT CANCELLED** Date/Time: _____

Entry has been completed and all entrants have left the space.

Person in Charge of Entry: _____ _____

Print Name Signature

Copy: Site File; Client as required; Post

Appendix 13

Orientation Checklist

48.5 RTD FasTracks Project Safety Orientation

RTD FASTRACKS PROJECT SAFETY ORIENTATION

Per the safety policies and procedures of RTD FasTracks, it is mandatory that all onsite personnel receive the jobsite safety orientation (and On-track Safety orientation), prior to starting work. This document acknowledges that the following topics have been discussed to the satisfaction of all parties, and that both supervisor and employee accept responsibility for the project safety requirements and maintaining a safe and healthful work environment.

Employee Name: _____ **Badge #:** _____

Contractor: _____ **Date:** _____

RTD FasTracks
Eagle P3 Project

Construction Safety Guidelines

General	1. Safety Orientation and Drug Testing are mandatory and only authorized workers are allowed this project. 2. **Drug Testing**: Pre-employment, Post Accident/incident, Suspicion, Cause and Random. Non-negative/Refusal to test – worker is prohibited on site. 3. All workers are to **immediately** report all unsafe work practices & hazardous conditions to site supervision. 4. All workers are **empowered** to stop unsafe work practices, identify unsafe / hazardous conditions, stop non-construction personnel and escort them out of the work areas. 5. Housekeeping: All trash/debris must be cleaned up **daily** by generating trades. This includes lunch/break trash (NO GLASS BOTTLES). 6. Daily Pre-Task Planning Meetings: Prior to each shift, forms must be completed daily by the foreman and signed by each worker. 7. Warning Tape: **Yellow - *Caution***: A yellow area can be accessed by anyone who is authorized to be on the job site, and who stops to observe the existing hazard and takes the proper precautions prior to entering. Red – ***Imminent Danger*** exists. Only authorized personnel performing actual work are to be allowed in this barricade tape area. The only exception for entry into a red area is with prior permission of those authorized to work within the area. 8. No radios, radio headsets, etc. are allowed on the project. 9. Must be trained/certified to operate forklifts, aerial lifts, cranes, work off scaffolding, etc. 10. Required Permits: Hot Work, Confine Space, Trenching/Excavating, Perimeter Protection, Scaffolding. 11. Workers are to report to CM/GC if their employing contractor fails to properly train them or provide PPE. All reports confidential. 12. RTD will not be responsible for damage to vehicles parked on site in authorized or unauthorized areas. 13. No riding in the back of pick up trucks, open trailers, buckets, forklifts, etc. 14. Public perception is of paramount importance. Proper job conduct is a high priority and each employee MUST act in a professional and non-confrontational manner, at all times.
Initials	

RTD FASTRACKS PROJECT SAFETY ORIENTATION (Cont'd)

100% **6-Foot Fall Protection** **(Regardless of Trade)**	1. **100% FALL PROTECTION** - all fall exposure's 6 foot or more for <u>all</u> workers regardless of trade. A. Building perimeter / Leading Edges – roof's, floors, balconies, atrium's, wall openings, etc. B. Floor Openings / Holes – Elevator shafts, stairways, pipe runways, cutting holes, etc. C. Steel Erection / Scaffolding / Ladders / Aerial Baskets / Trenches / Excavations, etc. 2. Fall Violations: **ZERO TOLERANCE – REMOVAL FROM THE PROJECT!** 3. Components: Full body harnesses, double and/or single lanyards with double locking snap hook, retractable lanyards, sufficient tie off points. A. Components are to be <u>inspected</u> daily/prior to every use. <u>DO NOT USE DAMAGED or WORN OUT COMPONENTS</u>. B. Tie off point must hold 5,000 LBS or 2x SF as engineered anchorage point. C. Do <u>not</u> tie back into the lanyard – A tie off strap should be utilized. D. Full body harnesses must be worn properly at all times. 4. Do <u>not</u> cross beyond Warning Lines without 100% tie off. 5. Avoid pendulum swings when setting up fall protection. 6. As a worker, you must be trained in fall protection by your employing contactor. 7. Extending / Articulating Boom Aerial Lifts - 100% tie off. 8. Scissor Lifts: A. Mid-rail chains must be secured and gates closed at all times. B. Do not stand on mid rails, boxes, mid rail planks, etc. 9. Scaffolding: A. No work will be permitted on any scaffolding without obtaining a "Scaffolding" permit from CM/GC. B. Must be built under supervision of Competent Person and inspected daily by the Competent Person. C. 100% Fall Protection must be maintained while erecting / dismantling scaffolding, loading / unloading material. 10. Standard Railing – Wood and/or wire rope: A. Top edge height of top rail must be 42" ± 3" above the walking/working level, mid rail 22". B. Do <u>not</u> remove any guardrails without CMGC authorization – Permit is required. C. Guardrails will <u>not</u> be used as a tie off point for personal fall arrest equipment. 11. Ladders: A. Where applicable, workers must tie off while working above 6' while on ladders. B. No aluminum or painted wood ladders. C. Inspect all ladders before each use – Remove damaged ladders from service. D. Never use the top two (2) steps of a step ladder. E. Worker must maintain their body within the ladder rails – NO leaning or outstretching to the left or right. F. Use 3-point contact at all times: 2 hands and a foot or visa versa to be in contact with ladder at all times. a. Do <u>not</u> carry material/tools/etc by hand up ladders. A tool rope must be used to maintain 3-point contact.
Initials	

RTD FasTracks

Construction Safety Guidelines

Trenching & Excavating Initials	1. No entry without obtaining a "Trenching/Excavating" permit from CM/GC. 2. Do not enter trenches / excavations > 4' without proper shoring, benching, sloping, or trench boxes for protection. 3. Ladders must be used for access/egress for trenches 5' + and be within 25' of all workers. 4. All trenches and excavations must be inspected daily by the competent person.

RTD FASTRACKS PROJECT SAFETY ORIENTATION (Cont'd)

Confine Spaces Initials	1. No entry by any worker(s) without obtaining a "Confine Space Entry" permit from CM/GC. 2. All confine spaces must be tested for air quality. 3. A secondary worker must be present at all times at the entry to the confine space. 4. Emergency rescue equipment must be available/set up/in use at confined space location.
Hazard Comm. Initials	1. All contractors will maintain Material Safety Data Sheets on site – Copies will be available in the CM/GC Jobsite Trailer for review. 2. Workers working with material are to read MSDS's, warning/caution labels on cans, bags, etc. prior to using the product(s). Appropriate PPE will be worn by workers while working with hazardous material(s).
Electrical Initials	1. 100% Ground Fault Circuit Interrupter (GFCI) Protection on the project at all times for temporary and permanent power. 2. Industrial heavy weight cords with proper grounds are to be used at all times. 3. Inspect all cords and welding leads daily before each use. G. Damaged items must be repaired or removed from the job site. H. All cords and leads are to be elevated above all main walkways where feasible. 4. **ALL** electrical and mechanical systems are to be considered **LIVE** and **ENERGIZED**. A. Systems / panels must be Locked Out / Tagged Out prior to any work 5. **NEVER** work on **LIVE / ENERGIZED** panels and/or systems without obtaining a "Hot Work" Permit from CM/GC. A. Safety meeting must be conducted with CM/GC, (NFPA 70E Standards reviewed) and written permit issued by CM/GC.
Lifting & Mat. Handling Initials	1. Weight should be limited to 50# per worker when lifting and handling material. 2. Proper lifting and material handling procedures: A. Squat Down – Do not bend over. B. Keep back in proper alignment while tucking in the load. C. Lift straight up and avoid twisting of lower back.
Cranes Initials	1. Be aware of overhead loads and **NEVER** stand, walk, or work under an overhead load. 2. Be aware of crane swing radius – Do not cross over into flagged off areas. 3. Walk 10' around the back side of all cranes and moving equipment to avoid being struck. 4. Know the weight being lifted. Any loads exceeding 75% of the crane's picking capacity mandates a "Critical Lift" meeting.

RTD FasTracks

Construction Safety Guidelines

Equipment Initials	1. Proper training and proof of certification is required prior to operating any equipment. 2. Complete stops must be observed at all intersections. 3. Speed limit on site is 5 mph or a safe operating speed - whichever is slower. 4. Seatbelts are to be worn by operators/workers. 5. A spotter is mandatory when view is obstructed by load. 6. Backup alarms must be present and working on all equipment and vehicles. 7. Always follow the manufacturers operating instructions for all equipment and tools used on this project.

RTD FASTRACKS PROJECT SAFETY ORIENTATION (Cont'd)

Welding/Torching Initials	1. No welding/torch cutting permitted by any worker(s) without obtaining a "Hot Work" permit from CMGC. 2. A portable fire extinguisher (20# ABC) must be present within 25' of work. 3. Welding curtains are to be provided for welding operations.
Personal Protective Equipment Initials	1. Hardhat Protection REQUIRED AT ALL TIMES. 2. Eye Protection (ANSI Z87.1) REQUIRED AT ALL TIMES. 3. Reflective vest/tee shirts REQUIRED AT ALL TIMES. 4. Steel toe/ hard sole work boots/shoes are required - No sneakers or soft shoes are allowed REQUIRED AT ALL TIMES. 5. Long pants in good condition - No shorts allowed REQUIRED AT ALL TIMES. 6. Shirts must have 3" to 4" sleeves – no tank tops, open sided shirts, or cutoff shirts REQUIRED AT ALL TIMES. 7. Gloves are to be worn for specific activities – i.e.: cut resistant gloves for handling metal studs, cutting drywall, any sharp edges exposure. 8. Ear protection as required – Rule of thumb: If you must raise your voice to speak to someone 3' away, protection is required. 9. Respirators as required – must be NIOSH approved (i.e.: 2 rubber straps). 10. Face-shields required when cutting / grinding / chipping / etc.
Accident/Incident Reporting Initials	Any injuries/illness/near misses on site must report to their supervisor within 15 minutes after the event, if physically possible. A First Report of Injury" form must be filed with CM/GC Safety Office within (24) hours after an accident. If sent to a doctor for treatment all follow-up appointments must be kept. The worker must strictly follow any and all work restrictions issued by doctor. A. Failure to report immediately could result in denial of the claim. Only RTD authorized medical clinics and hospitals will be utilized for medical treatment. Worker/contractor will be responsible for any unauthorized medical treatment. Foremen will transport and remain with all injured workers to the clinic/hospital. Injured workers are prohibited from driving themselves. A Temporary Modified Duty policy (Return to Work) policy is in place and will be implemented by all contractors.

RTD FasTracks

Construction Safety Guidelines

Safety Non-Compliance Initials	1. As a worker, you are **RESPONSIBLE & ACCOUNTABLE** for your actions on this project. 2. Disciplinary Procedures: a. Verbal Warning = ***Orientation*** b. Written Warning c. Suspension and/or Termination from the project **ZERO TOLERANCE** – RTD and CM/GC also retain the right to remove any worker from the project at any time, for any fall violation, safety violation, or as warranted by RTD or CM/GC. 3. Foremen are **RESPONSIBLE and ACCOUNTABLE** for assigning job task, safety preplanning of job tasks, assuring proper training and use of PPE, worker accidents, retraining/discipline or dismissal of workers who fail to work safely, etc. 4. Prime contractor and their subcontractors responsible for any OSHA Inspections and/or CM/GC OSHA multi-employer citations and fines will be responsible for paying all fines and cost associated with the inspection, citation, and/or fine. 5. As a result of unsafe actions re-orientation, additional training or other actions deemed appropriate by the RTD safety manager may be taken.

RTD FASTRACKS PROJECT SAFETY ORIENTATION (Cont'd)

Emergency Procedures Initials	1. In the event of an emergency: A. Notify job foreman and CM/GC **immediately**. B. Provide the exact location and nature of the emergency (i.e. broken leg, fire, general public, etc). C. Stay on the phone until Safety/911 has confirmed that you have provided accurate information. D. If an evacuation is not required, stay on the scene to brief emergency personnel upon their arrival. 2. Building Evacuation Procedures: A. 3 horn blasts or other designated means will indicate site is to be evacuated – i.e.: Bomb, Collapse, Toxic Release, Fire, etc. B. Proceed in a calm, orderly manner to the designated Safety Zone designated by your employing contractor. a. Report directly to your foreman/superintendent in the safety zone for head count and do not leave until instructed. 3. Tornado – Evacuate immediately to the storm shelter designated by your employing contractor.

I fully understand the topics discussed during the Safety Orientation and accept responsibility for safety on this project. **Safety is a condition of employment.** Failure to comply, can and will result in suspension and/or termination. The signatures below document and acknowledge that the appropriate topics have been discussed to the satisfaction of all parties, and that both supervisor and employee accept responsibility for maintaining a safe and healthful work environment.

Company Name: _____

Sign Name: _____

Appendix 14

RRP JHA Form

	Job Hazard Assessment
HSE-FRM-044	Rev. Date 11/07/12

Project Name:_____ Assessment Location:_____

Project Number:_____ Date/Time:_____

Task Description:

Assessment Team: **Name/Signature** **Position**

_____ _____

_____ _____

_____ _____

Always refer to the Regulations for your place of work to ensure compliance.

Procedure/Task	Hazards	Hazard Level	Prevention or Abatement Measures
	•		•
	•		•
	•		•
	•		•
	•		•
	•		•
	•		•
	•		•
	•		•
	•		•
	•		•
	•		•

Procedure/Task	Hazards	Hazard Level	Prevention or Abatement Measures
	•		•
	•		•
	•		•
	•		•
	•		•
	•		•

Copies to:_____ for Action.

Copies to:_____ for Information.

Reviewed during Orientation: Yes☐ **No** ☐ If **No**, must be reviewed with workers; workers must sign form.

Supervisor's Signature:_____ **Date/Time:** _____

Print Name/Sign

Reviewed with Workers (Print Name & Sign):

Name (Please Print)	Signature	Name (Please Print)	Signature

Appendix 15

RTD OCIP Pre-Construction Safety Meeting Form

RTD FasTracks

Construction Safety Guidelines

Date: _____

Company _____

48.4 Pre-Construction Meeting

Project Safety/Insurance Requirements

	Project: _____ Date: _____
	Contractor: _____ Trade(s): _____
	Attendees: _____ _____ _____ _____ _____ _____ _____ _____
A.	All prime contractors must enroll lower-tiered subcontractors (all tiers) into the ROCIP, and shall submit the following insurance information **direct to Marsh**: 1. Enrollment Form A (2 pages) 2. Bid Deduction Worksheet Form B (2 pages) 3. WC/GL/EL Rating Sheets 4. Offsite Certificate of Insurance List Subcontractors: _____ _____ _____ _____ **Note:** All prime contractors are **responsible** and **accountable** for ensuring that their lower tiered subcontractors (all tiers) are enrolled in the Rolling Owner Controlled Insurance Program (ROCIP) **prior to their start of work.**
B.	All contractors with "excluded parties" subcontractors (all tiers), vendors, suppliers, haulers, etc. shall submit the following insurance information: 1. Onsite Certificate of Insurance – Direct to CM/GC List Excluded Parties: _____ _____ _____ **Note:** All prime contractors are **responsible** and **accountable** for ensuring that all "excluded parties" have submitted a **compliance** (Additional Insured, Waiver of Subrogation, and Limits) "Onsite Certificate of Insurance" **prior to their start of work**.
C.	All prime contractors are responsible and accountable for communicating the requirements of this meeting, insurance requirements and safety requirements to their lower-tiered subcontractors (enrolled and /or excluded

RTD FasTracks

Construction Safety Guidelines

	Project: _____ Date: _____
	Contractor: _____ Trade(s): _____
	parties).
D.	As a prime contractor, have you received the following manuals and provided copies to your subcontractors: 1. Owner Controlled Insurance Program Manual 2. Project Safety Program – Project Specific Program
E.	All **prime** contractors and lower-tiered subcontractors shall submit the following information by the 10th of the following month: 1. On Site Payroll Report Form – Direct to Marsh, or online
F.	All prime contractors and lower-tiered subcontractors shall submit directly to project safety manager the following safety information, prior to the start of work. For assistance, a Pre-Construction Safety Checklist form can be found in Site Specific Safety Program. 1. Corporate Safety Program 2. Hazard Communication Program and Jobsite Specific MSDS's 3. Site Specific Fall Protection and Rescue Program 4. Name and email address of onsite & offsite manager responsible for implementation and enforcement of this safety program. 5. Name of the designated safety coordinator 6. Name & qualifications of the competent person(s) 7. OSHA 10 and/ or 30 hour certified workers 8. Emergency contacts and phone numbers 9. Certified First Aid / CPR Personnel 10. Name of WC Claims Coordinator 11. Contractor Safety Agreement 12. Completion of the state safety & health consultation program form (Submit to the project – Do <u>not</u> submit to the state) 13. The process for safety preplanning all work task (Daily Pre-task) 14. How visitors will sign "General Release – Visitors' forms 15. Cranes: Annual Inspection Certification and operator's qualifications 16. Subcontractor Safety Pre-Qualification Form Attachments: NNCI EMF Worksheets, Letter from the broker Insurance Company Workers Compensation Claims Summary OSHA 300 Logs and OSHA Violations
G.	All prime contractors and lower-tier subcontractors will designate a "project safety coordinator" for the duration of their work being performed on the project. If a subcontractor has less than 5 workers, then the prime contractors "project safety coordinator" can be substituted.
H.	All prime contractors and lower-tier subcontractors shall conduct/attend the following meetings, training sessions, and /or safety meetings: 1. Jobsite Safety Orientation – All Workers 2. Attend Superintendents Weekly Coordination Meetings 3. Attend Weekly Safety/Training Meetings – safety coordinators (Wed. @ 10:00am)

RTD FasTracks

Construction Safety Guidelines

	Project: _____ Date: _____
	Contractor: _____ Trade(s): _____
	this report)
M.	Please check if operations include any of the following exposures: ☐ Lifting/Material Handling ☐ Pre-cast Panels ☐ Visitors ☐ Falls ☐ Trenching ☐ Scaffolding ☐ Cranes ☐ Aerial Lifts ☐ Demolition ☐ Concrete Noise ☐ Welding/Torching ☐ Dusts/Vapors ☐ Electrical ☐ Blasting ☐ Traffic Control ☐ Equipment/Vehicles ☐ Masonry ☐ Steel Erection ☐ Storage Tanks ☐ Confine Spaces ☐ Painting/Sealing ☐ Overhead/Underground Utilities Other: _____ _____ _____ _____ _____ _____ Note: **Safety pre-planning meetings** will be conducted with all contractors and subcontractors prior to the start of all work activities involving the above exposures. Prime contractors are responsible and accountable for contacting the Project Safety Director, arranging a date and time for the meeting, etc.
N.	Monthly or Weekly Safety reports will be submitted to management for review.
O.	All prime contractors and lower-tier subcontractors are responsible for complying with the following OCIP Claims Procedures. 1. All WC/GL claims/incidences must be reported immediately (<1 hour) to the CM/GC (superintendent, site safety manager, etc.) 2. Prime contractor and subcontractors must submit incident investigation paperwork within 24 hours of the accident/incident 3. Attend Incident Review Meetings with 3 days of the accident/incident 4. Injured workers will seek medical treatment at RTD designated medical clinics and hospital 5. Full compliance with the Return to Work Program Note: All claims cost will be charged to the subcontractors Experience Modification Factor (EMF).
P.	Safety Award – Under development
Q.	Other Issues/Comments: _____ _____ _____ _____ _____ _____

RTD FasTracks

Construction Safety Guidelines

	Project: _____ Date: _____
	Contractor: _____ Trade(s): _____
	4. Conduct and document Weekly Toolbox Safety Meetings 5. Conduct and document Daily Safety Pre-Task Planning Meetings 6. Conduct and document Safety Pre-Planning Meetings 7. Attend monthly Claims Review Meetings 8. Attend Incident Review Meetings
I.	All prime contractors and lower-tier subcontractors project safety coordinator shall collect and provide to the project safety manager, the following reports: 1. Weekly Toolbox Safety Talks – weekly 2. Incident/Near-miss investigation reports – 24 hours 3. Daily Safety Pre-Task Planning Meetings Reports (JHA's) – Daily or Weekly 4. Industrial Hygiene monitoring results (i.e.: Noise, Air Quality, etc.) – Upon receipt 5. Daily Crane Inspection Reports – Weekly 6. Insurance, safety consultant, and company safety reports – ***Upon request***
J.	Safety and insurance enforcement on the project will consist of: 1. Workers: **"ZERO TOLERANCE – Removal of the worker(s)"** for fall violations, serious violations, or as warranted by ***RTD.*** 2. Workers: Oral warnings, written warnings, 3 day suspensions, removal from the jobsite. 3. All contractors and subcontractors: Re-Orientation, additional training (OSHA10 hour, OSHA 30 hour or other as appropriate, or mandatory purchase of additional safety equipment). 4. Prime contractor and their subcontractors responsible for any OSHA multi-employer citations and fines will be responsible for paying all fines and cost associated with the citation and fine. 5. Non-compliance with the RTD FasTracks Construction Safety Guidelines and/or ROCIP Insurance Manual, will be considered a Breach of Contract.
K.	All prime contractors and lower-tier subcontractors are responsible for enforcing the following safety programs, policies, and procedures on this project: 1. ROCIP and contractors Safety Programs, Hazard Communication Programs, etc. 2. Federal OSHA, state, and local regulations 3. Return to Work Program 4. Workers attending the safety orientation and completing a pre-hire drug screen prior to working onsite 5. Fall protection: **100%** 6 foot fall protection policy for all trades 6. Personal Protective Equipment: **100%** hard-hat, eye protection, footwear, clothing, and high visibility vest policy 7. Lifting/Material Handling (maximum lift: 50#, proper lifting techniques, mechanical equipment) 8. Housekeeping – Daily clean up 9. Daily inspections by the competent person: fall protection, trenching, scaffolding, cranes, etc. 10. Conduction pre-planning meetings for all hazardous operations 11. Conducting daily safety pre-task planning meetings 12. Conducting weekly toolbox safety meetings 13. Reporting all accidents and incidences within one hour
L.	OSHA Inspection procedures: Data reviewed with the prime contractor and subcontractors. *(Attach OSHA data to*

Appendix 16

RTD FasTracks Construction Safety Guidelines

RTD Construction Safety Guidelines

To Be provided by RTD/OCIP Loss Control

Appendix 17

RRP Crisis Management/Communication Plan

Crisis Communications Plan

CDRL ID No. 03-014

Prepared by:

Regional Rail Partners

For:

North Metro Rail Line Project

RTD CONTRACT No. 13DH008

January 6, 2016

Rev. 03

Approvals:

David Trent, Project Director — Date: 1/8/16

Lindi Johnson for David Joseffy, QA Manager — Date: 1/8/16

Kathy Berumen, Public Information Manager — Date: 1/8/16

DATE	REVISION INDEX	REV
04/01/14	Initial Issue	00
11/11/14	Update names, phone numbers, charts	01
04/29/15	Update Appendix A, Appendix B, Appendix C	02
01/06/16	Annual Revision of plan	03

TABLE OF CONTENTS

1.0 Introduction

Purpose
An effective communications plan is critical to managing information during crises. With multiple areas actively engaged in construction operations, the North Metro Rail Line is highly visible. With heightened community interest along with the number of municipalities, stakeholders, and public and private organizations scrutinizing the operation, Regional Rail Partners (RRP) must be prepared for any crisis situation.

Goals
The Regional Rail Partners Crisis Communications Plan supports the following goals:

- Ensure accurate, consistent and timely communications – internally and externally
- Eliminate confusion and rumors
- Protect the reputation of RTD, RRP and their team members
- Maintain credibility with public officials, emergency responders, the news media, stakeholders and the general public
- Identify and clarify responsibilities to ensure staff preparedness

Three key elements to managing crisis communications
PRE-CRISIS

- Ensure that everyone understands the plan. Even the most solid crisis communications plan will fail if everyone on the project has not been trained on how to perform during a project incident or crisis.
- This Crisis Communications Plan will be reviewed bi-annually, discussed as a team; and updated as needed.

CRISIS RESPONSE

- Quickly deliver a clear, concise message to stakeholders and news media. An immediate and clear response is the most effective way to minimize potential negative impacts.
- Have one voice communicate information to news media and social media channels, and stakeholders. Limit the number of people who speak for the Project to ensure continuity and credibility.

POST CRISIS

- Review the “hits” and “misses” of how the team performed during the crisis and evaluate the team’s response against the procedures outlined in the plan to ensure that best practices are always followed. Update the plan as needed.

2.0 First Hour Checklist

In the event of a crisis that impacts construction of the North Metro Rail Line, the Crisis Communication Team Leader should follow these 8 steps within the first hour:

1. Determine the type of crisis and level of response required
2. Initiate the Phone Tree and gather Crisis Communication Team (Appendix A, B, C and D)
3. Gather information and facts
4. Set up the Crisis Communications Center (if needed)
5. Determine if Inter-Agency collaboration is required
6. Set up the Media Briefing Center (if needed)
7. Assign responsibilities to team members
8. Continue to receive and deliver accurate information to appropriate parties

3.0 Emergency Contact Lists

See Appendices for list details and contacts:

APPENDIX A	Emergency Telephone Tree
APPENDIX B	Emergency Telephone Tree Contact Information
APPENDIX C	Crisis Communication Team
APPENDIX D	Crisis Communication Telephone Tree
APPENDIX E	Inter-Agency Contact Information
APPENDIX F	News Media Contact Information
APPENDIX G	Public Information Officers (PIOs)
APPENDIX H	Utility Contact Information
APPENDIX I	Elected Officials Contact Information

Determine the Type of Crisis

The following matrix outlines potential incidents/crises that might occur. Use this reference to see how the North Metro Line Public Information Team and the RTD FasTracks Public Information Team might serve as lead communicator during a crisis. Other entities including Balfour Beatty Infrastructure Group, Graham Construction and RTD may be called upon to embellish the North Metro Crisis Communication team. Each scenario is unique. Use this guide to make the appropriate decisions.

Matrix Key
RRP = Regional Rail Partners
RTD = Regional Transportation Department Public Information Team
● *= Lead on Incident*

4.0 Crisis Scenario Agency Matrix

Potential Scenarios	Potential Incidents	RRP	RTD
Death/injury/accident	Contractor injury/fatality	●	❍
	RRP employee injury/fatality	●	❍
	RRP construction accident	●	❍
	Motor vehicle accident involving subcontractor equipment or personnel	●	❍
	Public injury/fatality at project event/work site/etc.	●	❍
	Train derailment	❍	●
Weather-related crises/Natural disasters	Winter Storm	●	❍
	Flood	●	❍
	Fire	●	❍
	Hazardous spill	●	❍
Internal Crises	Embezzlement	●	●
	Fiscal mismanagement/misuse of public funds	❍	●
	Lawsuit	●	●
	Criminal charges against an employee	●	●
Civil disobedience	Onsite protesters	●	❍
Violence	Terrorism	❍	●
	Workplace violence	❍	●
	Road rage incident involving Project employee	❍	●

5.0 Crisis Communications Center (CCC)

Set up the Crisis Communications Center
The North Metro Rail Line Public Information Managers and the RRP Safety Manager will collaborate and determine if the CCC should be activated and which Crisis

Communications Team members will respond. The decision will be based on the urgency of the situation and the need to advise stakeholders and news media.

The North Metro Rail Line Crisis Communication Team Leader will determine the necessity of establishing a Media Briefing Center.

When activated, the CC Leader will coordinate critical information gathering and dissemination of information to news media and other stakeholders.

CRISIS COMMUNICATIONS TEAM – SEE APPENDIX C

5.1 Crisis Communications Center Information

Location: North Metro Rail Line Project Office
1765 121st Avenue, Westminster, CO 80234

Phone: 720-253-0004
After Hours: Kathy Berumen: 720-456-5279 (mobile)

Alternate 1: Regional Conference Room, RTD Civic Center Building
1560 Broadway, 7th Floor, Denver, CO 80202

Phone: 303-299-6916

After Hours: Marta Sipeki: 303-503-5446 (mobile)

Alternate 2: Conference Room A, RTD Administration Building
1600 Blake Street, Denver, CO 80202

Phone: 303-299-2105

After Hours: Scott Reed: 303-898-2477 (mobile)

5.2 Crisis Communications Center Staffing

The Crisis Communications Center should be staffed with Crisis Communication Team members who perform the following functions:

- **Crisis Communication Team Leader** – The main point of contact for those working in the CCC. Manages information for the messaging and updates general info as the crisis changes.

- **Media Spokesperson** – Single point of contact for all media interviews. Responds in person to all media requests for information. Participates in news conferences and updates at the Media Briefing Center or on-site. Remains on site and in direct contact with Media Liaison to receive regular updates.

- **Media Liaison**– Answers media calls. Records media requests for information and interviews. Coordinates interview requests with spokesperson. Returns all media calls. Compiles post-crisis report on media requests and responses. Works in CCC.

- **Public Information Liaison** – Interacts onsite with Media Spokesperson, Project Management, Incident Command, RRP Safety Manager, Media and other Stakeholders to identify key facts of the crisis and relays information from the site to CC Leader. Establishes safe and separate zones for the media and the public. Compiles post-crisis report on crisis incident information. Reports to Media Spokesperson.

- **Social Media Liaison** – Stays in close communication with the CC Leader to coordinate messages posted on the North Metro Rail Line Website, RTD Facebook and Twitter pages; and other appropriate social media tools. Posts and monitors messages on social media throughout the duration of the crisis and post crisis. Additional staff persons may be directed to assist. Works in CCC.

- **Business/Community Liaison** – Initiates, receives and answers calls from businesses and the community-at-large. Depending on the crisis, this may require two or more people. Provides information as it becomes available, to callers. Records caller information and responses. Compiles post-crisis report on business/community requests and responses. Works in CCC.

- **Government Liaison** – Initiates, receives and answers calls from local, state and national government representatives and/or staff. Records caller information and responses. Compiles post-crisis report on requests for information and responses. Works in CCC.

- **Internal Liaison** – Initiates, receives and answers calls and requests for information from employees. Provides updates to internal audiences, including applicable project team contractors. Compiles post-crisis report on requests for information and responses. Works in CCC.

- **Crisis Communications Support Staff** – Supports Crisis Communication Center staff, as needed. Takes notes at news conferences and briefings. Serves as liaison between Crisis Communications Center and on-scene personnel. If necessary, escorts media and/or runs between Crisis Communications Center and the incident/crisis scene. Responsible for getting food/water and other needs for team and media. Could contribute on site by providing supplies for RRP, RTD and media personnel. Works in CCC and/or on-site as directed.

5.3 Crisis Communication Team Leader Responsibilities

1. Initiates **the Emergency Phone Tree (APPENDIX A)** to alert the team that the Crisis Communications Center has been activated. All notified staff will report to the Center. RTD's Public Information Manager will lead the Crisis Communication Team.

   The Leader will continue to update two boards of information, one for media messages and one for general information.

2. Gather facts about the situation, including:
   a. What
   b. When
   c. Where
   d. Impacts (human/traffic/utilities/etc.)
   e. Injuries/fatalities (how many)
   f. Who is at the scene (emergency responders)
   g. Who from the North Metro Rail Line Team is on the scene
   h. What support is needed
   i. Is news media present at the scene
   j. Are any social media posts being sent and/or seen

3. Determine lead internal/external agency

   _____

4. Determine lead spokesperson/media control person(s)

   _____

5. Determine lead social media director for media/public response

   _____

6. Make assignments and distribute phone lists as team members arrive.
   a. Media _____

   b. Government Agencies_____

c. PIOs_____

d. Internal Team Members_____

e. Utilities_____

f. Other Partners_____

7. Dispatch Media Spokesperson and Public Information Liaison to crisis site if necessary.
   Crisis Location Site is:
   _____

8. Determine if social media and website updates are required.

9. Determine if reverse 911 phone systems should be activated.

10. Develop messages, frequently asked questions and fact sheets. Update frequently as needed.

11. Develop official statements for the media in conjunction with Crisis Communications Team and other applicable response agencies.

12. Engage staff to issue periodic news bulletins regarding response to the incident/crisis; as well as frequent social media posts.

13. Monitor news media coverage and social media coverage.

14. If appropriate, establish a Media Briefing Center and staff with a second media control person.

15. Provide information to media, internal staff, appropriate government agencies, stakeholders and community phone inquiries.

16. Maintain contact lists and log all incoming and outgoing calls by subject.

17. Assist media in obtaining information/video/photos in a safe manner.

18. Arrange follow-up interviews as appropriate.

19. Communicate with Project Management as to appropriate internal communications with employees, family members, etc.

20. Hold frequent debrief sessions with the team throughout the crisis.

5.4 Media Spokesperson Checklist

REMINDER: Safety of all employees and stakeholders is our first priority. Sensitive handling of media needs is a secondary priority. It is strictly prohibited to use your personal phone to photograph a crisis scene or to share or exchange information about a crisis on personal social media sites.

DUTIES: Single point of contact for all media interviews. Responds in person or via phone to all media requests for information. Participates in news conferences and updates at the Media Briefing Center or on-site. Remains in direct contact with Media Liaison to receive regular updates.

CHECKLIST:

- ☐ Receive facts from the Media Liaison about what happened and how emergency response organizations, the contractor, and others have addressed the situation.
- ☐ Respond to the scene of the incident or the Media Briefing Center, as determined by the PI Managers.
- ☐ Coordinate with on-site PIO's
- ☐ Return media calls promptly as possible. Be sensitive to deadlines.
- ☐ Provide verbal and email updates to media as quickly and as often as possible.
- ☐ Be honest and stick to the facts. Provide information, such as what happened, when and the current situation. Emphasize the emergency response and what is being done to stabilize the situation and to minimize the impact on stakeholders.

  Key initial message elements should include:

  - Basic cause of issue/crisis (e.g., construction accident, road closure, gunman, etc.)
  - Actions being taken to alleviate the issue/crisis
  - Impact to the public
  - Anticipated duration of the problem/crisis

- Never speculate or guess. If you don't have the answer, tell the reporter and offer to find the answer.
- Don't release the names of the injured or the severity of their injuries. This information should come from medical authorities after family members have been notified and have given permission for release of information.
- Never assign or take blame for a situation.
- Don't over explain.
- Don't talk "off the record."

5.5 Media Liaison Checklist

REMINDER: Safety of all employees and stakeholders is our first priority. Sensitive handling of media needs is secondary. It is strictly prohibited to use your personal phone to photograph a crisis scene or to share or exchange information about a crisis via personal social media sites.

DUTIES: Answers media calls. Records media requests for information and interviews. Coordinates interview requests with spokesperson. Returns all media calls. Compiles post-crisis report on media requests and responses.

CHECKLIST:

- ☐ Quickly develop facts about what happened and how emergency response organizations, RRP, and others have addressed the situation.
- ☐ Review the project materials/fact sheets/maps/etc., for background information on the affected department/area.
- ☐ Route media calls to the appropriate spokesperson.
- ☐ Coordinate media responses with crisis center authorities/representatives.
- ☐ Immediately update the latest information to the Spokesperson.
- ☐ Use the appropriate fill-in-the-blank news release to respond to initial media calls.
- ☐ Develop a list of potential questions and draft responses.
- ☐ Maintain media calls log by using Form 1 found in APPENDIXL.
- ☐ Update media and Spokesperson as quickly and as often as possible verbally and in writing.
- ☐ Give media status updates.
- ☐ Coordinate with Public Information Officers (PIO's)
- ☐ Communicate with public information staff of the affected municipality/jurisdiction, including police and fire public information officers.

5.6 Public Information Liaison Checklist

REMINDER: Safety of all employees and stakeholders is our first priority. Sensitive handling of media needs is a secondary priority. It is strictly prohibited to use your personal phone to photograph a crisis scene or to share or exchange information about a crisis on personal social media sites.

DUTIES: Single point of contact on crisis site to gather information from Project Management, Incident Command and Public Safety Officials. Relays all information to the Media Spokesperson and Media Liaison and remains in direct contact throughout the incident.

CHECKLIST:

- ☐ Gather facts about what happened and how emergency response organizations, RRP, and others have addressed the situation.
- ☐ Work with emergency response agencies on scene to determine the appropriate contact..
- ☐ Respond to the scene of the incident or the Media Briefing Center, as determined by the Public Information Manager.
- ☐ Stay in close communication with the Media Liaison and Media Spokesperson. Be sensitive to deadlines.
- ☐ Provide verbal and email updates as quickly and as often as possible.

The following guidelines may or may not be applicable. Use common sense and coordinate with emergency response representatives before implementing these actions.

- To ensure public safety, only working news media representatives (reporters, photographers) with proper credentials are allowed access to the crisis scene.
- Unless conditions dictate otherwise, media access will be provided only after appropriate authorities have declared the area safe.
- Establish a safe zone for the media away from the crisis scene.
- Coordinate with Security and Safety Personnel to secure the area for media. Choose an area that is:
    - Safely away from incident “safe zone”.
    - Large enough to accommodate 20+ people.
    - Accessible via car from a public street.

Direct all media to the “safe zone”. If already on-site, escort them to this area.

- They must have hard hats, vests and safety glasses if the “safe zone” is onsite.
- If they DON’T have the proper safety equipment, direct them to wait off-site until a Project representative or Public Information Office arrives with additional gear.
- Keep other staff completely separate from the media “safe zone.”

Stay with this group. Do not leave media personnel alone. If a reporter demands to go on-site remind them: “This is an active work site, people are responding to the incident.

This is for your safety."

Do not comment. Please use the following statement:

**"IN THIS SITUATION, I AM NOT THE MEDIA SPOKESPERSON. I AM HERE TO KEEP YOU SAFE DURING
THIS INCIDENT. AS SOON AS INFORMATION IS AVAILABLE, A SPOKESPERSON WILL PROVIDE IT TO YOU."**

- The Public Information Liaison(s) will coordinate on-scene media requests for interviews with the appropriate on- or off-scene authorities.
- The Public Information Liaison will issue safety equipment and accompany reporters/photographers if media are allowed on scene.
- The Public Information Liaison will make every effort to record the name and affiliation of all media on scene, as well as their mobile phone numbers, in the event they need to be re-contacted.

5.7 Social Media Coordinator Checklist

REMINDER: Safety of all employees and stakeholders is our first priority. Sensitive handling of media needs is secondary. It is strictly prohibited to use your personal phone to photograph a crisis scene or to share or exchange information about a crisis on personal social media sites.

DUTIES: Stays in close communication with Media Liaison and Media Spokesperson to coordinate messages posted on the North Metro Rail Line's Website, RTD's Facebook page and RTD's Twitter page; and other appropriate social media tools. Posts and monitors messages on social media throughout the duration of the crisis and post crisis.

Note: The first 24 hours are crucial as this is when people search for information. The Internet does not wait for an official response. The news will spread with or without RRP and RTD's' involvement; therefore, it's critical that we take control as quickly as possible.

CHECKLIST:

- ☐ Coordinate outgoing messages with Media Spokesperson and Media Liaison.
- ☐ Post messages in concert with all other public notices to media and stakeholders.
- ☐ Activate website messaging and update the North Metro Rail Line's website as necessary.
- ☐ Activate and update reverse 911 phone system as directed by Crisis Communication Team Leader
- ☐ Monitor and track messages for sentiment on all social media channels. Are public postings positive, negative, or neutral? Coordinate responses if needed.
    - Facebook/Twitter
    - Website
    - YouTube
- ☐ Keep track of all outgoing and incoming messages for real-time and post crisis analysis.
- ☐ For messages: Express sorrow and grief on behalf of agency, not as an individual.
- ☐ Be prepared to step into this function remotely and immediately depending on the timing and nature of the crisis.
- ☐ If video communications is initiated, coordinate with the video production team to upload visuals.
- ☐ Coordinate with the Crisis Communications Leader.

5.8 Business/Community Liaison Checklist

REMINDER: Safety of all employees and stakeholders is our first priority. Sensitive handling of information needs is secondary. It is strictly prohibited to use your personal phone to photograph a crisis scene or to share or exchange information about a crisis on personal social media sites.

DUTIES: Initiates, receives and answers calls from businesses and the community-at-large. Depending on the crisis, this may require two or more people. Provides information, to callers as it becomes available. Records caller information and responses. Compiles post-crisis report on business/community requests and responses.

CHECKLIST:

- ☐ Quickly gather facts about what happened and how emergency response organizations, the project, and others have addressed the situation.
- ☐ Review the project materials/fact sheets/maps/etc., for background information on the affected department/area.
- ☐ Determine additional communication channels as necessary.
- ☐ Ensure calls from business representatives and community members are routed to the appropriate office and liaison.
- ☐ Coordinate responses, as appropriate, with crisis center authorities/representatives.
- ☐ Maintain a log of all calls from business representatives and community members using Form 1 found in APPENDIX M.
- ☐ Return calls promptly as possible.
- ☐ Update business representatives as quickly and as often as possible.
- ☐ Be honest and stick to the facts. Provide basic information, such as what happened, when and the current situation. Emphasize the emergency response and what is being done to stabilize the situation and to minimize the impact on stakeholders.
    - Never speculate or guess.
    - Don’t release the names of the injured or the severity of their injuries. This information should come from medical authorities after family members have been notified and have given permission for release of information.
    - Never assign blame for a situation.
    - Don’t over explain.

5.9 Government Liaison Checklist

REMINDER: Safety of all employees and stakeholders is our first priority. Sensitive handling of information needs is secondary. It is strictly prohibited to use your personal phone to photograph a crisis scene or to share or exchange information about a crisis on personal social media sites.

DUTIES: Initiates, receives and answers calls from local, state and national government representatives and their staff. Records caller information and responses. Compiles post-crisis report on requests for information and responses. Communicating quickly and often with local, regional and national government representatives during a crisis is critical. These representatives and their staffs can help squash rumors and misinformation to certain stakeholder groups. The database of local, regional and national government representatives and their staffs should be updated semiannually.

CHECKLIST:

- ☐ Quickly develop facts about what happened and how emergency response organizations, Project representatives, and others have addressed the situation.
- ☐ Review the Project materials/fact sheets/maps/etc., for background information on the affected department/area.
- ☐ Develop appropriate contact list from full government/elected officials contact list, based on specific incident/crisis.
- ☐ Ensure calls from government officials are routed to the appropriate office and PI liaison.
- ☐ Coordinate responses, as appropriate, with command center authorities/representatives.
- ☐ Maintain a log of all calls from government representatives using Form 1 found in APPENDIX M.
- ☐ Return calls as promptly as possible.
- ☐ Update government representatives as quickly and as often as possible.
- ☐ Be honest and stick to the facts. Provide information, such as what happened, when and the current situation. Emphasize the emergency response and what is being done to stabilize the situation and to minimize the impact on stakeholders.
    - Never speculate or guess.
    - Don’t release the names of the injured or the severity of their injuries. This information should come from medical authorities after family members have been notified and have given permission for release of information.
    - Never assign blame for a situation.
    - Don’t over explain.

5.10 Internal Liaison Checklist

REMINDER: Safety of all employees and stakeholders is our first priority. Sensitive handling of information needs is secondary. It is strictly prohibited to use your personal phone to photograph a crisis scene or to share or exchange information about a crisis on personal social media sites.

DUTIES: Initiates, receives and answers calls and requests for information from Project employees. Provides updates to internal audiences, including applicable Project team contractors. Compiles post-crisis report on requests for information and responses.

CHECKLIST:

- ☐ Inform RRP Project Director and RTD Project Manager as first level of communications.
- ☐ Quickly develop facts about what happened and how emergency response organizations, Project representatives, and others have addressed the situation.
- ☐ Review the Project materials/fact sheets/maps/etc., for background information on the affected area.
- ☐ Coordinate responses, as appropriate, with crisis center authorities/representatives.
- ☐ Ensure information is provided to Project staff in advance of, or at the same time, it is released to the media.
- ☐ Update employees as quickly and as often as possible.
- ☐ Use e-mail to provide updates to the team.
- ☐ Be honest and stick to the facts. Provide information, such as what happened, when and the current situation. Emphasize the emergency response and what is being done to stabilize the situation and minimize the impact on stakeholders.
    - Never speculate or guess.
    - Don’t release the names of the injured or the severity of their injuries. This information should come from medical authorities after family members have been notified and have given permission for release of information.
    - Never assign blame for a situation.
    - Don’t over explain.

5.11 Crisis Support Staff/Runner Checklist

REMINDER: Safety of all employees and stakeholders is our first priority. Sensitive handling of information needs is secondary. It is strictly prohibited to use your personal phone to photograph a crisis scene or to share or exchange information about a crisis on personal social media sites.

DUTIES: Supports Crisis Communication Center staff, as needed. Takes notes at news conferences and briefings. Serves as liaison between the Crisis Communications Center and on-scene personnel. If necessary, escorts media and/or runs between Crisis Communications Center and the incident/crisis scene.

CHECKLIST:

☐ Report to Crisis Communication Leader.

☐ Help record incoming phone calls, responses and calls that must be returned and forward to the appropriate communications lead, e.g., government, media, etc.

☐ Assist with monitoring broadcast news media coverage.

☐ Ensure you have all the necessary personal safety equipment you may need at the incident/crisis site.

☐ Deliver information to the on-scene representative from the Crisis Communications Center and from the on-scene representative to the Crisis Communications Center.

☐ Provide support on scene with news media and/or community.

☐ If necessary, communicate with nearby businesses or residents.

- Never speculate or guess.
- Don’t release the names of the injured or the severity of their injuries. This information should come from medical authorities after family members have been notified and have given permission for release of information.
- Never assign blame for a situation.
- Don’t over explain.

❒ Update communications materials such as fact sheets, statements, talking points, Q&A, etc.

6.0 Media Briefing Center

Set up the Media Briefing Center
The Media Briefing Center will be activated when it is not feasible or safe to brief news media on scene. The Center will be used to inform news media during follow-up briefings or when news conferences are more appropriate.

Location: North Metro Rail Line Project Office, 1765 121st Avenue, Westminster, CO 80234 Rockies Conference Room.

Phone: 720-253-0004

After Hours: Kathy Berumen: 720-456-5279 (mobile)

Alternate: Brenda Tierney: 303-908-4978 (mobile)

Coordinator: Libby Winter: 303-903-7385 (mobile)

Staff: Designated Crisis Communications Team Members

Duties:

1. The Crisis Communication Leader will notify the Crisis Communications Team that a Media Briefing Center is necessary. All designated and notified staff will report to the Media Briefing Center.
2. Staff will set up the media center. *See Media Briefing Center checklist below.*
3. Gather and provide information. If appropriate, relay official statements from the Crisis Communications Center.
4. Determine spokesperson/media control person(s) for media/public response.
5. Invite media to Media Briefing Center. Give them specific time(s) for the next briefing; give directions for parking and alert security to secure parking spaces for satellite trucks, and other official news media vehicles, if needed.
6. Check media credentials as media representatives enter and log written information with contact information.

Media Briefing Center Checklist

- ☐ Facility
  - Verify security presence
  - Test Internet access and phone service
- ☐ Equipment
  - Microphone/amplifier
  - Podium
  - Acoustics
  - Visual aids (equipment, screens, easel, charts, etc.)
  - Heat/air (where are controls; how to adjust if necessary)
    - Video/audio equipment for media plug-ins
  - Seating arrangements
  - Registration table
  - Signage
- ☐ Materials
  - Sign-in sheets and name tags
  - News Kits/Fact Sheets/News Releases
  - Pads and pens

7.0 Working with News Media

In a crisis, it is important to address the information needs of the media. The more serious the crisis, the more demanding the media will be. The Crisis Communications Team should provide facts as quickly as possible.

How the Media will respond
The media will typically respond to a crisis unannounced. Because reporters monitor emergency radio frequencies, they often arrive at accidents before emergency personnel.

- Pictures are often more important to telling the story than words. Video and still cameras and tape recorders will abound. The media may also use helicopter-based cameras to provide live feeds from the crisis scene.
- The media competes to provide reports before the competition. This results in a frenzy to get information first.
- Media will also monitor social media outlets such as Twitter or Facebook to pick up comments and observations posted by the public who have witnessed the crisis or been personally impacted by the crisis.

Releasing Information to the Media
The Crisis Communications Team should work with the appropriate agencies to determine the timeliest way to release information to the media during a crisis.

- On-scene group media briefings (informal news conference
- On-scene one-on-one interviews
- Telephone interviews
- Off-site news conference (at a project facility or other neutral site)
- E-mail releases to newsrooms, bloggers
- Social Media posts

A combination of methods may prove most useful. The distribution method should be determined by the importance of the information and its timeliness.

News Conferences
A news conference is an important tool for communicators, particularly when the media is determined to be the most appropriate mechanism for rapid distribution of information to the public. During crisis situations, press conferences frequently serve two purposes – they are often the best way to disseminate information quickly and effectively, while also maintaining the trust of the community. In other words, a well-orchestrated press conference promotes the image that someone is in charge and is making the proper decisions to ensure public safety and best serve the public's interest.

7.1 News Conference Guidelines

News conferences can be very successful in communicating with the media during a crisis, however, they should only be held under appropriate circumstances. Ask the following questions before determining if a press conference is the right tool for the job. If the answer to any of these questions is "no," you should consider a press release, e-mail correspondence and/or individual phone calls instead:

- ☐ Do we have critical, NEW information/news to share?
- ☐ Has the incident/crisis been resolved?
- ☐ Will it be beneficial to the Project or to the situation to announce news to the media in person?
- ☐ Is this an incident that is of interest to the mass media and general public?

News Conference Checklist:

- Facilities
  - Site satisfactory
  - Space adequate
  - Security available
  - Accessible for physically disabled
  - Parking available
  - Outdoors – grounds in good condition
  - Visuals identified
  - Internet access and phone service
- Equipment
  - Microphone / amplifier
  - Podium
  - Platform / stage
  - Acoustics
  - Visual aids (equipment, screens, easel, charts, etc.)
  - Heat / air (where are controls; how to adjust if necessary)
  - Video / audio recording equipment, including multi-box for media plug-ins
  - Seating arrangements
  - Registration table
  - Signage
    - North Metro Rail Line Logo Backdrop

- ☐ Materials
  - Sign-in sheets
  - Name tags
  - Tent cards, if needed
  - Posters
  - Press kits
  - Pads and pencils
  - Participant materials (including press kits, releases, etc.)
- ☐ Speaker preparation
  - Determine press conference moderator (most likely PIO)
    - Will open press conference, introduce first speaker, manage (re-direct to appropriate official) questions at the end, end press conference at appropriate time
  - Determine order of speakers, topics each will cover
  - Create speaker talking points or prepared statements as appropriate
  - Develop Q&A document
  - Run Q&A with speakers (minimum of 30 minutes)
- ☐ Staffing and set-up
  - Speakers
    - On-hand 30 minutes before start
  - Staff on hand and in place (1 hour before start)
    - Greeter
      - Welcomes media, ensures sign-in, directs to location
    - Runner
      - Assists with miscellaneous tasks
    - Tech Coordinator
      - Works closely with electronic media to ensure proper arrangements are made for microphone placement, power needs, lighting, manages/resolves disputes between camera operators involving camera placement, etc.
    - Scribe
      - Logs reporters' questions, identifies which questions were not answered and flags for follow-up
- ☐ During the news conference
  - Moderator gains media's attention, introduces first speaker, then selects order of questions during Q&A, referring to available expert for response
  - Ensure scribe makes note of all questions
- ☐ After the news conference
  - Distribute press kits of fact sheets to media who were unable to attend
  - Follow up on unanswered questions/requests for additional information
  - Monitor the press for coverage

7.2 News Releases

News releases are the core of public information, especially during crisis situations. Releases should be concise and only include facts that have been confirmed through appropriate agencies that are involved.

The Public Information Officer's (PIO) credibility is directly tied to the project's image and credibility. In order for the PIO to retain credibility with the media, s/he must have all information available at any given time. For these reasons, official press releases must only be created and distributed at the direction of the PIO.

Some sample news release templates have been created as part of this plan, and may be found in APPENDIX G. It is impossible to predict the details and intricacies of any future crisis, therefore many fields are highlighted and left blank. These templates are general and will serve as a starting point when this crisis communications plan is put into effect.

North Metro Rail Line Website/the Hub
The Crisis Communications Leader will assign a member(s) of the team to post updates on the North Metro Rail Line website, which can be done remotely from any computer.

Social Media
The Crisis Communications Leader will assign a member(s) of the team to monitor external comments and post updates on the RTD FasTracks Facebook and Twitter pages throughout the crisis period and after the crisis has been resolved. See Page 11.

Pre-Scripted Messages
While each response agency has specific spokesperson protocols, the primary unified goal is to provide stakeholders with the "who, what, when, where, why and how long," litany of information. This facilitates consistency of response, regardless of which agency is the lead for a specific incident within the Project. The following key messaging criteria covers the basic elements of incidents or crises and provides the coping information necessary for the media and the public to appropriately respond. These criteria will be used by the Crisis Communications Team for creating all crisis messages.

1. What is the incident/crisis/disruption
2. Who/what caused the incident/crisis/disruption broad or specific, depending upon fact verification
3. When did the incident/crisis/disruption begin
4. Actions being taken to alleviate the problem
5. Impact to the public
6. Anticipated duration of the incident/crisis/disruption
7. Additional information resources

8.0 Project Team Guidelines and Tools

1. **Crisis Communications Center.** Procedures, locations and supplies will be determined to allow for the rapid set-up of a command center to respond to crisis situations.
   - Roles and responsibilities checklists:
     - Media spokesperson
     - Government/Agency liaison
     - Internal liaisons
       - Elected officials, RTD Board members, RRP and RTD staff
     - Public Liaison
     - Protest Coordinator
2. **Spokesperson procedures.** Spokesperson procedures will be established in cooperation with the designated spokespersons from each agency. This will facilitate consistency of response, regardless of who is the lead for a specific crisis.
3. **On-site procedures.** On-site procedures may include the following to provide the critical guidance necessary to manage incidents and crises at the site level.
   - Media Control
   - Public safety
   - Safety zones
   - Protester coordination
4. **Crisis communications toolbox.** A toolbox of materials, which may include the following, will be developed to increase the effectiveness of crisis communications planning.
   - Crisis response training material
   - Laminated crisis communications wallet cards
   - Crisis procedure cards
   - Toolbox briefing sheets
   - Pre-approved statements and release templates
5. **Crisis communications training.** Training plays a critical role in preparedness. There are specific actions that each team member must take to ensure the desired communication outcome during a crisis. The North Metro Rail Line Crisis Communication Team will meet annually for a table top training exercise simulating a real event. This exercise will provide recommendations, techniques, and guidance should a real crisis transpire. It will also coach team members on methods to perform in concert with each other. Attendance will be logged via a Training Log. See Appendix J

North Metro Rail Line Pre-Approved Preliminary Message

The following pre-scripted message is approved for use by Project personnel as a preliminary message to provide basic information until an approved spokesperson can respond to the scene.

"MY NAME IS _____ AND I'M A ____*TITLE*_____ON THE NORTH METRO RAIL LINE PROJECT.

AT APPROXIMATELY ____*TIME*____ (AM/PM) WE EXPERIENCED A(N) (ACCIDENT, FIRE, EXPLOSION, [OR DESCRIBE SITUATION]) NEAR ____ *APPROXIMATE STREET ADDRESS*___.

WE ARE WORKING WITH ____*NAME AGENCIES* ___ TO ADDRESS THE SITUATION.

THIS IS ALL I CAN CONFIRM AT THIS TIME. WE ARE FOCUSED ON RESOLVING THIS SITUATION, SECURING A SAFE AREA, AND ARE GATHERING AS MUCH INFORMATION AS POSSIBLE.

PLEASE REMAIN IN THIS SAFE AREA AND EITHER A SPOKESPERSON OR I WILL BE BACK IN __*# OF MINUTES*__ WITH ANY ADDITIONAL INFORMATION THAT CAN BE VERIFIED.

THAT IS ALL I HAVE FOR NOW. WE WILL ANSWER QUESTINS AS SOON AS WE CAN."

Project Internal Reporting Procedures

Procedures have been established to provide a step-by-step process by which the North Metro Rail Line can ensure a consistent approach to crisis communications. Internal reporting procedures will warrant that timely, accurate information is received from Project management and agency partners.

<u>If any of the identified crisis scenarios occur:</u>

- **Contact your supervisor**
- **Call Tony Bale, RRP Safety Manager, 720-636-6622**
- **Call Kathy Berumen, Public Information Manager, 720-456-5279**

When calling in, please provide the following:

- ⇒ **What happened**
- ⇒ **Specific location**
- ⇒ **Your name**
- ⇒ **Your current contact number**
- ⇒ **General activity involved/how it happened**
- ⇒ **Current status of people/situation**
- ⇒ **Is media on site? If yes, give clear directions to location**

Project Office Personnel

When an incident or crisis has been reported from the field:

- Call Tony Bale, RRP Safety Manager, 720-636-6622
- Tony will call Kathy Berumen, RRP Public Information Manager, 720-456-5279

North Metro Rail Line On-site Procedure for Emergency Communications (SAMPLE)
Recognizing that news media may arrive at the crisis site before a designated Public Information Officer (PIO) or spokesperson, procedures have been established to guide communications.

Crew Supervisor:

a. Assign someone to carry out media control (procedure outlined below) until a PIO arrives.
b. Call/notify the following immediately:
    - Tony Bale, RRP Safety Manager, 720-636-6622
    - Kathy Berumen, RRP Public Information Manager,720-456-5279

Provide the following information:

_____ What happened
_____ Specific location (exit #, cross streets, mile market, etc.
_____ Your name
_____ Your immediate contact number that will remain open for incoming calls
_____ General activity involved or how it happened
_____ Current status of people/situation
_____ Is the media on site? If yes, give clear directions to location.

Staff Assigned to Media Control:

- If media ***is*** on site.

_____ Use tape, cones, traffic control equipment or other means to mark off a secure area for the media to gather. Look for an area that is:
    - Safely away from any hazards in a "safe zone"
    - Large enough to accommodate 20+ people
    - Accessible via car from a public street
    - Direct all media to the "safe zone." If already on site, escort them to this area
    - Keep other staff completely separate from the media "safe zone"

_____ STAY WITH THIS GROUP. Do not, under any circumstances, leave the media personnel alone.

_____ **DO NOT COMMENT. The media will ask questions and attempt to get you to talk about what is happening, the people, your job, etc. They may flatter you or try to upset you. Try to be as polite and courteous as you can, but do not answer any questions. They are just trying to get a story. In this situation, you don't have a story. Your only statement is:**

"I'M SORRY, I AM NOT A SPOKESPERSON. I AM HERE TO KEEP YOU SAFE DURING THIS INCIDENT. AS SOON AS INFORMATION IS AVAILABLE, A SPOKESPERSON WILL PROVIDE IT TO YOU."

- Be aware that news media monitor radio traffic and social media traffic. Be careful not to transmit information that can be used by the media to substantiate a story or identify accident/incident victims.

Staff Assigned to Public Information Area:

- Keep the public in a contained area, safely away from the incident scene AND away from the media safe zone.
- Provide information/updates on status of people/situation to any public present.

This information should be obtained ***only*** from the designated spokesperson onsite.

Manager/Superintendent:
If there are several media people present and a Manager/Superintendent is available before a PIO/spokesperson arrives, the following statement should be read:

"MY NAME IS _____ AND I'M A ____*TITLE*_____WITH THE NORTH METRO RAIL LINE PROJECT.

AT APPROXIMATELY ____*TIME*____ (AM/PM) WE EXPERIENCED A(N) (ACCIDENT, FIRE, EXPLOSION, [OR DESCRIBE SITUATION]) NEAR ____ *APPROXIMATE STREET ADDRESS*___.

WE ARE WORKING WITH ____*NAME AGENCIES* ___ TO ADDRESS THE SITUATION.

THIS IS ALL I CAN CONFIRM AT THIS TIME. WE ARE FOCUSED ON RESOLVING THIS SITUATION, SECURING A SAFE AREA, AND GATHERING AS MUCH INFORMATION AS POSSIBLE.

PLEASE REMAIN IN THIS SAFE AREA AND EITHER A SPOKESPERSON OR I WILL BE BACK IN __*# OF MINUTES*__ WITH ANY ADDITIONAL INFORMATION THAT CAN BE VERIFIED.

THAT IS ALL I HAVE FOR NOW. WE WILL ANSWER QUESTINS AS SOON AS WE CAN."

1. Wait for a PIO/spokesperson to arrive before making statements to the media. If, for some reason, one cannot arrive in a timely manner, further directions and approved statements will be provided over the phone.

2. If the incident is resolved fairly quickly, the media will probably leave to prepare their story, but may still have questions that need to be answered. In that event, please take down the following information:

_____ Name of Media Outlet (publication/radio/TV station)
_____ Reporter's Name
_____ Mobile Phone #
_____ Date/Time of Inquiry
_____ Reporter's Deadline
_____ Reporter's Questions
_____ Facts Given (this should consist only of the facts released through the approved statement above)

Once you have all of the information, immediately forward your written documentation of the media inquiries to the Public Information Manager.

Protester Coordination
Lawful protests must be reported and coordinated to ensure both the safety of protesters and the continuation of work.

- Internal reporting – notify Kathy Berumen, Public Information Manager, 720-456-5279

- Site coordination – ensure that protest groups are in a safe area, on public property, and don't interfere with ongoing work or work crews.
- External reporting – notify law enforcement agencies to handle inappropriate or unsafe actions.

9.0 Wallet Cards

Wallet cards will be distributed to all prime and subcontractor crewmembers working in the field. As shown in the sample below, wallet cards include internal notification procedures and contact information, brief instructions on how to respond to on-site media, and a statement clarifying they are not spokespersons.

Non-crisis Incident + Media On-site:
If media staff arrive on-site during normal operations requesting information or an interview:

Call Kathy Berumen, RRP Public Information Manager immediately at 720-456-5279 and leave the following information:

- What happened?
- When?
- Specific Location *(exit #, cross streets, mile marker, etc.)*
- Your name + mobile number
- General activity involved? How it happened?
- Current status of people/project?
- Are media on-site? If yes, give clear directions.

Crisis Incident + Media On-site
If media have already arrived on-site during a crisis situation:

1. Call your superintendent, and
2. Call Kathy Berumen, RRP Public Information Manager, immediately at 720-456-5279 and leave the information requested above.

INCIDENT NOTIFICATION

FIELD

911
(if needed)

Tony Bale
720-370-0917 office
720-636-6622 mobile

Kathy Berumen
720-370-0897 office
720-456-5279 mobile
303-239-6448 home

Brenda Tierney
303-299-2401 office
303-908-4978 mobile
719-487-8322 home

Other North Metro Rail Line Contacts
David Trent 512-677-8600
Mike Salmon 720-456-5291

Suggested script for public comments:

"My name is [your name] and I am [your role] with RTD FasTracks North Metro Rail Line. We are aware that at approximately [time] at [location] there was an [incident]. We are working with [agencies] to address the situation. At this time we don't have specific information on how many people or households are affected. This is all I can confirm. I'm sure you understand we are busy trying to deal with the situation. Please remain in this safe area and either a spokesperson or I will be back in [#] minutes."

When Media are on-site:

1. Secure a safe zone away from site and direct media to it. Have someone stay with this group.
2. Be as polite and courteous as you can, but DO NOT COMMENT OR ANSWER ANY QUESTIONS FROM THE MEDIA. Write down their questions and contact person to pass on to the Superintendent or Kathy Berumen.
3. APPROVED STATEMENTS:
   I am not a spokesperson. I am here to keep you safe during this incident. As soon as accurate information is available, a spokesperson will provide it.

10.0 Media/Emergency Communications

Toolbox Briefing Sheet

Please share the following information during morning toolbox meetings once a week. Cover each point and distribute wallet cards as needed. Contact your Superintendent or Kathy Berumen when wallet card supply runs low.

Media Inquiries
If a member of the media arrives onsite, escort them to the onsite supervisor, explain that you are not a spokesperson for the project and are not authorized to answer any questions and refer them to the RRP Public Information Manager phone number on your wallet card. Write down their name, the station or publication they work for and their mobile phone number. Then, call the RRP Public Information Manager with the information. They will follow up and schedule a visit if necessary. All media visits must be approved through the RRP Public Information Manager.

Remember: unauthorized individuals cannot walk on-site without proper protective equipment (hard hat, safety vest, safety glasses).

Review Information on Wallet Cards
Make sure all employees understand the procedures outlined on the Wallet Cards. Review the approved statements printed on the Wallet Card and ensure that all appropriate employees have cards on them when they are working.

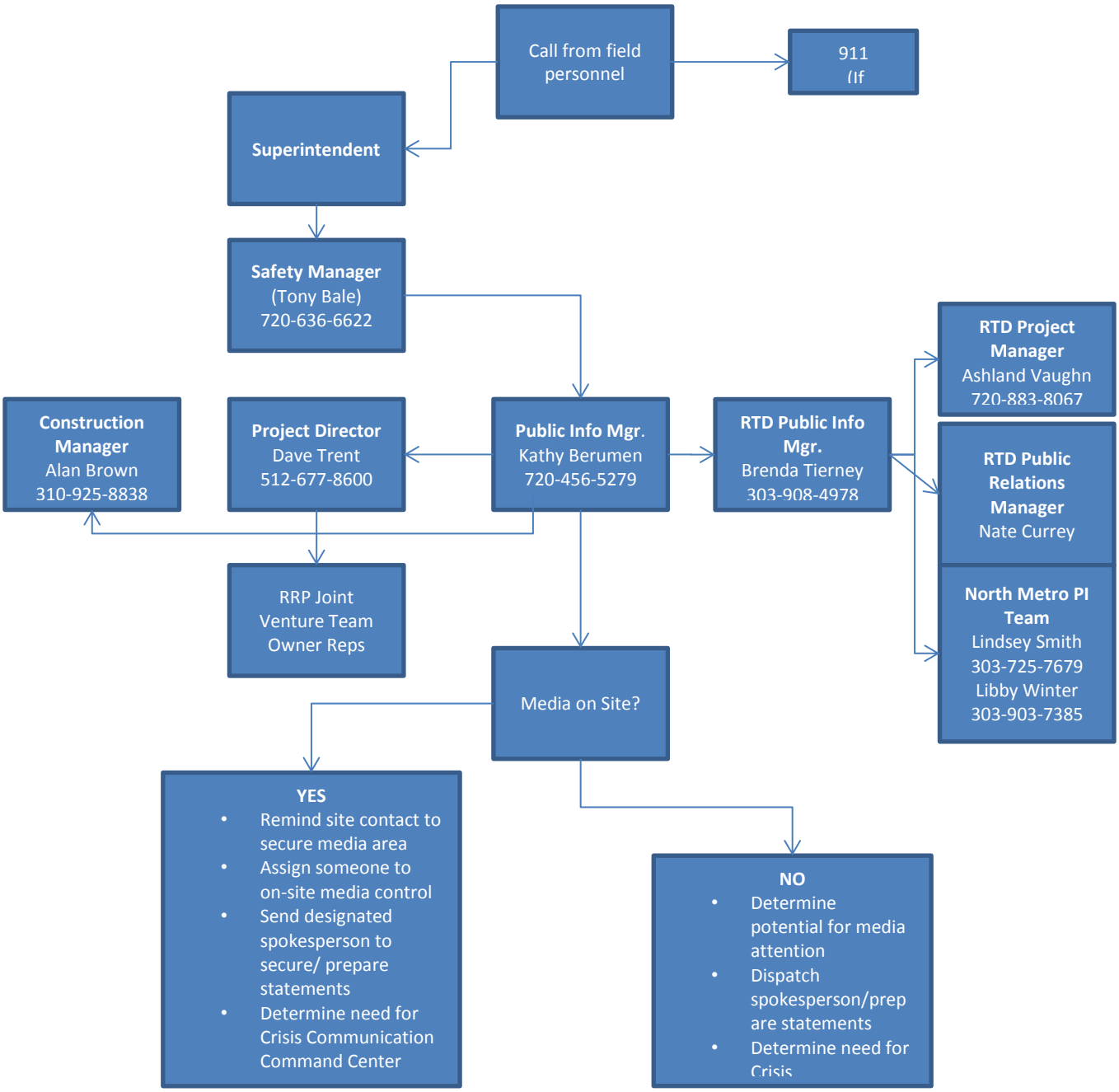
On-site Emergency Communications Procedures
In the event of an on-site emergency that attracts media attention, an on-site employee will need to be assigned to Media Control. The responsibility of this person is to:

- Secure a “safe zone” area for media
- Stay with the media group at all times
- Not comment on the incident, just keep the media separate from the incident site and other staff who are dealing with the emergency

Remember: the Superintendent or the Project Spokesperson will be the first person to make a statement to the media during an emergency situation, unless the crew supervisor is notified otherwise by the RRP Public Information Manager.

11.0 APPENDICES

11.1 APPENDIX A - Emergency Telephone Tree



See next page for team members and contact information of those listed above,

11.2 APPENDIX B – Emergency Telephone Tree Contacts

Names in alphabetical order

NAME	OFFICE	CELL PHONE	HOME PHONE
Bale, Tony	720-370-0917	720-636-6622	None
Berumen, Kathy	720-370-0897	720-456-5279	303-239-6448
Brown, Alan	720-370-0579	720-560-3357	none
Currey, Nate	303-299-2469	720-579-8080	none
Smith, Lindsey	303-299-2895	303-725-7679	none
Tierney, Brenda	303-299-2401	303-908-4978	719-487-9322
Trent, Dave	303-299-2898	512-677-8600	None
Vaughn, Ashland	303-299-6986	720-883-8067	None

11.3 APPENDIX C - The Crisis Communications Team

When the Crisis Communications Center is activated, the Crisis Communications Team will convene, as needed.

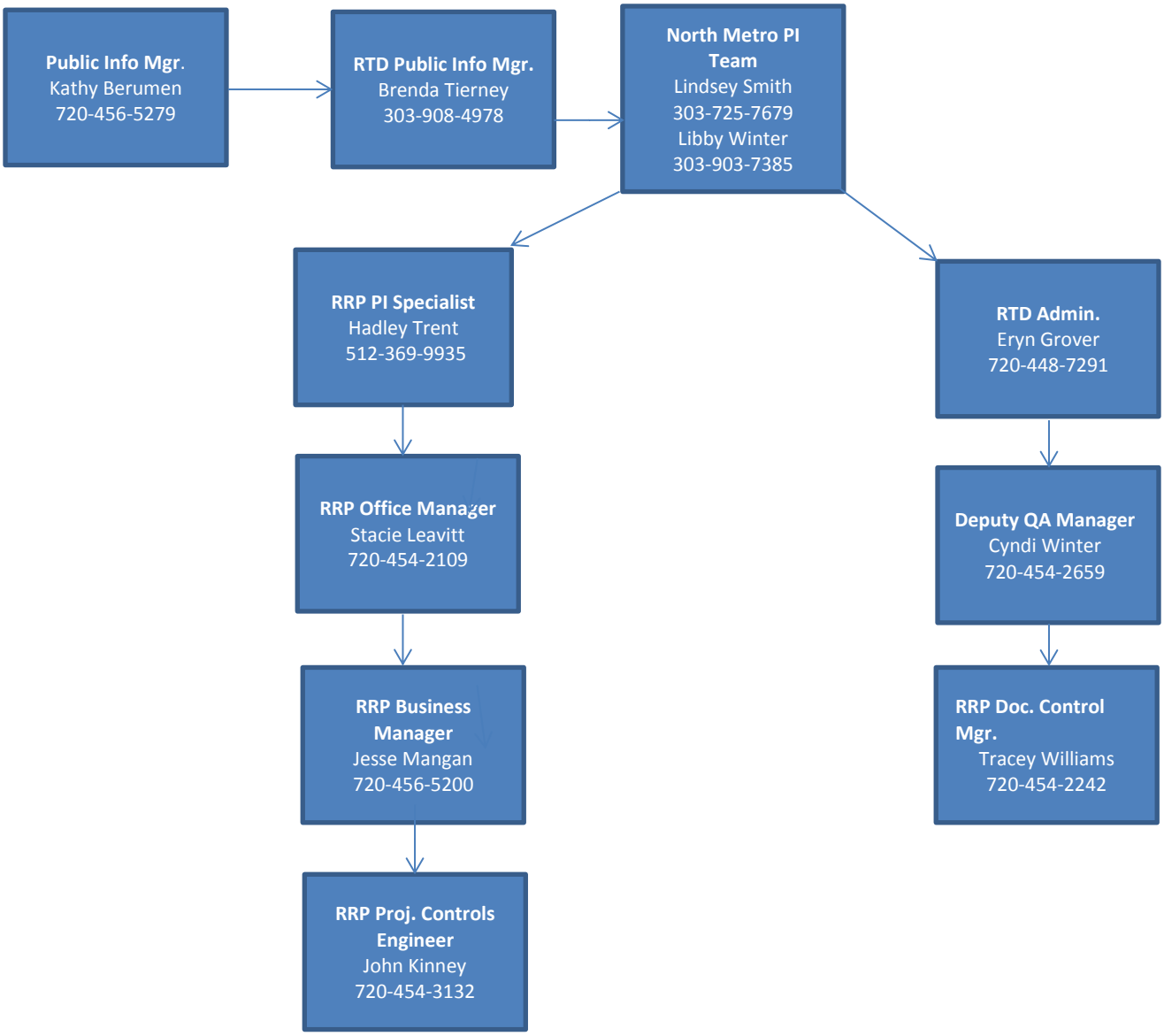
NAME	TITLE	OFFICE	MOBILE	HOME	EMAIL
Berumen, Kathy	RRP PI Manager	720-370-0897	720-456-5279	303-548-6487	kberumen@rrpjv.com
Tierney, Brenda	RTD PI Manager	303-299-2401	303-908-4978	719-487-9322	brenda.tierney@rtd-denver.com
Smith, Lindsey	RTD PI Specialist	303-299-2895	303-725-7679	303-725-7679	lindsey.smith@rtd-denver.com
Winter, Libby	RTD PI Specialist	303-299-2178	303-903-7385	303-903-7385	libby.winter@rtd-denver.com
Mangan, Jesse	RRP Business Manager	720-370-0894	720-456-5200	760-492-4908	jmangan@rrpjv.com
Trent, Hadley	RRP PI Specialist	720-370-0913	512-369-9935	None	htrent@rrpjv.com
Leavitt, Stacie	RRP Office Manager	720-370-0896	720-454-2109	443-744-2334	sleavitt@rrpjv.com
Johnson, Cyndi	Deputy Quality Assurance Manager	720-370-0890	720-454-2659	303-435-9732	cjohnson@rrpjv.com
Williams, Tracey	RRP Document Control Manager	720-370-0885	720-454-2242	303-931-8444	twilliams@rrpjv.com
Kinney, John	RRP Project Controls Engineer	720-370-5517	720-454-3132	909-263-1792	jkinney@rrpjv.com
Eryn Grover	RTD Admin	303-299-2392	720-448-7291	None	eryn.grover@rtd-denver.com

To facilitate accurate and timely communications, staff from other disciplines may augment the Crisis Communications Team on scene, or in the Crisis Communications Center.

INSTRUCTIONS:

- During normal hours, call office phone and cell. Keep calling until you get a live response.
- Attempt via email. Get confirmation that the message was received.
- Use Text Messaging if phone/email fails

11.4 APPENDIX D – Crisis Communications Team Telephone Tree



This tree determines who calls who in order to gather the crisis team.

11.5 APPENDIX E - Inter-Agency Contacts

Crises which involve or impact other public agencies will require inter-agency coordination prior to official communications with any external audiences.

Supporting Agencies/Entities Contacts

Agency	First Name	Last name	Phone	E-mail
CDOT	Emily	Wilfong	(303) 757-9362	Emily.wilfong@state.co.us
DRCOG	Steve	Erickson	(303) 480-6716	serickson@drcog.org
FTA	Dave	Beckhouse	(720) 963-3306	David.Beckhouse@dot.gov

11.6 APPENDIX F - News Media Contacts

Company	Position	Phone Number	Email
CBS4 (KCNC-TV)	Newsroom	303-830-6464	kcncnews@cbs.com
7NEWS (KGMH-TV)	Newsroom	303-832-0200	7newsdesk@kmgh.com
9NEWS (KUSA-TV)	Newsroom	303-871-1491	desk@9news.com
FOX31 (KDVR-TV)	Newsroom	303-566-7600	tips@kdvr.com
Univision/Entravision (KCEC-TV)	Newsroom	303-318-6236	noticiascolorado@entravision.com
KOA 850 AM	Newsroom	303-713-8500	denvernewsroom@clearchannel.com
Associated Press	Newsroom	303-825-0123	apdenver@ap.org
Aurora Sentinel	Newsroom	303-750-7555	news@aurorasentinel.com
Boulder Daily Camera	Newsroom	303-442-1202	newsroom@dailycamera.com
Denver Business Journal	Newsroom	303-803-9200	denver@bizjournals.com
The Denver Post	City Desk	303-954-1201	newsroom@denverpost.com
Longmont Daily Times-Call	Newsroom	303-776-2244	news@times-call.com
Our Colorado News—Arvada, Golden, Lakewood, Northglenn, Thornton, Westminster, Wheat Ridge	Newsroom	303-426-6000 (Westminster); 303-279-5541 (Golden)	newsroom@ourcoloradonews.com
Our Colorado News—Centennial, Elbert County, Englewood, Highlands Ranch, Littleton, Lone Tree, Parker	Newsroom	303-566-4100 (Highlands Ranch)	pressreleases@ourcoloradonews.com

11.7 APPENDIX G - Public Information Officers

Name	Jurisdiction	Email
Rich Neumann	Adams County	rneumann@adcogov.org
Joe Ferndani	Adams School District 12	Joe.ferdani@adams12.org
Janelle Asmus	Adams School District 14	jasmus@adams14.org
Kevin Denke	Adams School District 27H	kdenke@sd27j.org
Steve Saunders	Adams School District 50	ssaunders@adams50.org
Whei Wong	Mapleton Public Schools	wongw@mapleton.us
Amber Miller	Denver	Amber.miller@denver.org
Melissa Taylor	Denver Fire	melissa.taylor@denvergov.org
Sonny Jackson	Denver Police	sonny.jackson@denver.gov.org
Daelene Mix	Denver Dept. of Safety	daelene.mix@denvergov.org
Kristen Chernosky	Brighton	kchernosky@brightonco.us
Jennifer Hoffman	Broomfield	jhoffman@broomfield.org
Todd Barnes	Thornton	Todd.barnes@cityofthornton.net
Jack Patton	Thornton Fire	jack.patton@cityofthornton.net
Darrell Alston	Thornton Police	darrell.alston@cityofthornton.net
Joann Cortez	Northglenn	jcortez@highlandhills.org
L. Pinales	North Metro Fire	Lpinales@NorthMetroFire.org

11.8 APPENDIX H - Major Utilities Contact List

Company	Contact	Address	Phone	Email
360 Networks Touch America	Bill Bland	815 Harrison Ave., Leadville, CO 80461	719-486-2526	Bill.bland@360.net
AT&T Communications	Ian Wetteland	5225 Zuni St., Denver, CO	303-324-6001	wetteland@att.com
CenturyLink Colorado	Charles Powell		303-992-4336	Charles.powell@centurylink.com
Comcast	Eric Carroll	1617 South Acoma St., Denver, CO 80223	719-659-5936	Eric_carroll@cable.comcast.com
Denver International Airport	Laura Coale	8500 Pena Blvd, Denver, CO 80249-6340	303-3342-2250	laura.coale@flydenver.com
Denver Water	Stacy Chesney	1600 W 12th Ave., Denver, CO 80204	303-628-6700	Stacy.chesney@denverwater.org
Denver Wastewater	Frank Kemme	2000 W 3rd Ave, Denver, CO 80223	303-446-3663	frank.kemme@denvergov.org
Level 3	Kimmie Greene	1025 Eldorado Blvd. Broomfield, CO 80221	720-888-7877	Kimmie.greene@level3.com
Metro Wastewater	Craig Simmonds	6450 York St., Denver, CO 80229	303-286-3338	Csimmonds@mwrd.dst.co.us
NuStar (Valero)	Harold Calcote	3601 E. 56th Ave., Commerce City 80022	303-263-6527	harold.calcote@valero.com
Sprint	Nick Muller	8000 E. Quincy Ave., Ste. 600B Denver, CO 80237	800-949-3540 720-318-9428 (M)	nick.j.muller@sprint.com
Time Warner Telecom	Guido Aguillard	14200 E. Jewell Ave., Aurora, CO 80012	303-566-6045	Guido.aguillard@twtelecom.com
United Power (Union Rural Electric)	Troy Whitmore	500 Cooperative Way Brighton, CO 80603	303-659-0551	twhitmore@unitedpower.com
Verizon	Harry MItchell		304-356-3404 West Virginia	Harry.j.mitchell@verizon.com
Xcel Energy	Craig Coon	5460 W. 60th Ave, Arvada, CO 80003	303-425-3982	craig.coon @xcelenergy.com
XO Communications	Steve Valdez	317 Inverness Way S Englewood, CO 80112	303-435-2793	steve.g.valdez@xo.com

11.9 APPENDIX I – Elected/Government Officials Contact List

Contact	Organization	Position	Phone	Email
Larry Hoy	RTD	Board Member – District J	720-295-4696	larry.hoy@rtd-denver.com
Charles Sisk	RTD	Board Chair	303-956-8336	charles.sisk@rtd-denver.com
Paul Solano	RTD	Board Member—District K	720-469-1261	Paul.Solano@rtd-denver.com
Judy Lubow	RTD	Board Member—District I	303-931-5904	judy.Lubow@rtd-denver.com
Joyce Downing	City of Northglenn	Mayor	303-457-3542	jDowning@northglenn.org
Heidi Williams	City of Thornton	Mayor	303-538-7531	heidi.williams@cityofthornton.net
Sean Ford	Commerce City	Mayor	303-720-9106	sford@c3gov.com

11.11 APPENDIX J - Pre-Scripted Messages and News Release Templates

INITIAL NEWS RELEASE SAMPLE

We are aware that an accident/incident involving _____ occurred at approximately _____, in the vicinity of _____. Emergency crews are responding, and we will have additional information available as we are able to confirm it. We will hold a press briefing at _____, and will notify the press at least ½ hour prior to the briefing. At this time, this briefing is the only place where officials authorized to speak about the incident and confirmed information will be available. Thank you for your assistance.

A _____ at _____ involving _____ occurred today at _____. The incident is under investigation and more information is forthcoming.

RUMOR CONTROL MESSAGING

We will not be able to confirm that until we have received notice from the appropriate experts. Once we have confirmed information, we will release it to all members of the press simultaneously.

Sample News Releases:

FATALITY ON PROJECT

TEMPLATE – NOT FOR RELEASE

FOR IMMEDIATE RELEASE

Media Contact:
Kathy Berumen
720-370-0897 (office)
720-456-5279 (cell)

NORTH METRO RAIL LINE CONSTRUCTION ACCIDENT RESULTS IN FATALITY

INSERT APPROPRIATE SUBHEAD

DENVER, (Date) – Regional Rail Partners officials responded to [incident] that took place at [location] in which [brief description of accident or situation].

First responders arrived on the scene at approximately [time]. The latest estimate indicates there are [# of fatalities, no fatalities *and/or* # of injuries, no injuries]. [Responders that arrived on scene] are providing support, as well [any other groups/individuals providing support]. First responders are in the process of transporting the injured to [where victims are being transported].

Officials are working to [briefly describe measures to alleviate any traffic/utility/human impacts]. Families who have reason to believe a loved one may have been injured in this accident are asked to come to [location of hospital] to meet with hospital officials. [Any additional support measures for victims/families of victims].
QUOTE FROM RRP OFFICIAL

Public updates will be provided by the [who will be providing updates] as more information becomes available.

# # #

UTILITY INTERRUPTION

TEMPLATE – NOT FOR RELEASE

FOR IMMEDIATE RELEASE

Media Contact:
Kathy Berumen
720-370-0897 (office)
720-456-5279 (cell)

NORTH METRO RAIL LINE CONSTRUCTION CREWS HIT GAS LINE

INSERT APPROPRIATE SUBHEAD

DENVER, (Date) — Regional Rail Partners is in the process of investigating a gas line hit [briefly describe situation].

INSERT QUOTE FROM RRP OR UTILITY OFFICIAL

As this is an ongoing investigation, officials are unable to provide additional details at this time but no criminal charges have been filed. More information will be provided through the [organization/municipality handling investigation] as details become available.

# # #

EMPLOYEE ASSAULT SITUATION

TEMPLATE – NOT FOR RELEASE

FOR IMMEDIATE RELEASE

Media Contact:
Kathy Berumen
720-370-0897 (office)
720-456-5279 (cell)

NORTH METRO RAIL LINE EMPLOYEE HELD ON CHARGES OF ASSAULT

INSERT APPROPRIATE SUBHEAD

DENVER, (Date) — North Metro Rail Line officials are investigating an incident of [road rage/assault] that lead to criminal charges involving a North Metro Rail Line employee.

The incident took place at [time] at [location] when witnesses say [briefly describe incident]. Officials are still investigating the incident and [have/have not yet] released the name of the employee.

[INSERT QUOTE FROM REGIONAL RAIL PARTNERS OFFICIAL]

The employee in question is currently being held at [location] until further notice. More information will be provided through [organization handling investigation] as details become available.

# # #

TERRORIST ATTACK

TEMPLATE – NOT FOR RELEASE

FOR IMMEDIATE RELEASE

Media Contact:
Kathy Berumen
720-370-0897 (office)
720-456-5279 (cell)

TERRORIST ATTACK SHUTS DOWN WORK ON NORTH METRO RAIL LINE

INSERT APPROPRIATE SUBHEAD

DENVER, (Date) — Construction of the North Metro Rail Line was shut down [date] after an apparent terrorist attack on [location] restricted [brief description of impacts].

[First responders] were first at the scene at [time] after [brief description of incident]. [Passengers/no passengers] were injured in the attack and there are [reported/no reported] deaths related to the incident. Victims were transported by [first responders] to [location]. Families who have reason to believe a loved one may have been injured in this accident are asked to come to [location] to meet with officials. [Any additional support measures for victims/families of victims].

Regional Rail Partners officials are working closely with [supporting agency(s)] to [brief description of measures to alleviate traffic/utility/human impacts].

QUOTE FROM REGIONAL RAIL PARTNERS OFFICIAL

Public updates will be provided by the [who will be providing updates] as more information becomes available.

# # #

11.12 APPENDIX K - Twitter and Facebook Sample Messages

TWITTER

1. SHORT URL. Bridge collapse three hurt rescue on the way #RTDFasTracks.

2. SHORT URL. Terrorist group shuts down construction on North Metro Rail Line no injuries SWAT at scene #RTDFasTracks

3. SHORT URL. North Metro Rail Line now open after fire at construction site #RTDFasTracks

FACEBOOK

1. RTDFasTracks. We are relieved to report that everyone involved in the bridge collapse is safe and unharmed. We thank you very much for your support during this difficult day. More information is on the North Metro Rail Line website (short URL here)

2. RTDFasTracks. Thanks to everyone who kept us informed during the terrorist attack on the construction site at 124th Avenue. We continue to monitor the situation while SWAT team has set up a perimeter. Will keep you informed as information comes in. (short URL here).

11.13 APPENDIX L - Media Inquiry Log

Date/Time	Name	Media Outlet Newspaper/TV/Radio/Other	Phone Contact Info	Topic Question	Action Taken

11.14 APPENDIX M - Stakeholder Inquiry Log

Date	Name	Email Address	Phone Number

Appendix 18

RRP Excavation / Ground Disturbance Permit

	Ground Disturbance Permit
HSE-FRM-062	Rev. Date 11/04/13

Project Name:_____ Permit Requested By:_____
Project Number:_____ Permit Issued By:_____
Contractor:_____ Permit No:_____
Start Date/Time:_____ End Date/Time:_____

SECTION 1: GENERAL WORKER PROTECTION AND OH&S (OHSA) REQUIREMENTS

☐ Applicable legislated requirements reviewed

☐ Applicable Client/Owner requirements reviewed

☐ Worker protection requirements reviewed

☐ Permit Issuer Checklist

☐ Operator/Worker Checklist

☐ Excavation ☐ Trench ☐ Tunnel ☐ Shaft ☐ Other:_____
Maximum: Depth:_____ Length:_____ Cutback:_____

Purpose:

Location/Area:_____

Soil Type:

☐ Type A/Type 1 (Cohesive - high clay content)
☐ Type C/Type 3 (Non-Cohesive - sand or wet conditions; sloughs or flows readily)
☐ Stable Rock (Vertical walls remain intact)
☐ Type B/Type 2 (Non-Cohesive - compact with fissures, layers of loam, sand or gravel)
☐ Type 4 (Non-Cohesive – very soft or very loose, almost no internal strength
☐ Other:_____

Comments on Soil Conditions:

Utility locates drawings attached to permit: ☐ Yes ☐ No If No Why:_____

Attached utility locates are current and valid: ☐ Yes ☐ No If No Why:_____

As built drawings are attached to permit: ☐ Yes ☐ No If No Why:_____

All underground utilities, as per current drawings and/or locates, are verified and marked to indicate locations: ☐ Yes ☐ No If No Why:_____

Has the permit issuer completed a visual inspection of the ground disturbance area with all involved: ☐ Yes ☐ No If No Why:_____

Are the ground disturbance limits identified on an up- to-date drawing and clearly staked and marked at the ground disturbance location: ☐ Yes ☐ No If No Why:_____

Day lighting (hydro vac) has been completed for all underground low and high energy utilities as required (1 metre/3 feet): ☐ Yes ☐ No If No Why:_____

Photo's taken prior to install have been attached to permit:

☐ Yes ☐ No If No Why:_____

SECTION 2: PIPING CLEARANCES

Have all underground pipelines within 5 metres (16 feet) of the ground disturbance limits been located and marked/staked: ☐ Yes ☐ No If No Why:_____

Have underground pipelines been day lighted according to utility owner (see locates) requirements:

☐ Yes ☐ No If No Why:_____

Comments: (including any site or client requirements that may dictate a deviation)

Permit Issuer:_____ Date/Time:_____
(Print Name & Sign)

SECTION 3: UNDERGROUND ELECTRICAL CLEARANCE

Have all underground electrical lines within 5 metres (16 feet) of the ground disturbance limits been located and marked/staked: ☐ Yes ☐ No If No Why:_____

Have all underground electrical lines been day lighted (hydro vac) according to utility owner (see locates) requirements: ☐ Yes ☐ No If No Why:_____

Comments: (including any site or client requirements that may dictate a deviation)

Permit Issuer:_____ Date/Time:_____
(Print Name & Sign)

SECTION 4: OTHER IDENTIFIED HAZARDS/ABATEMENT MEASURES OR SPECIAL INSTRUCTIONS (Danger Zone Permit HSE-FRM-066)

May include: ***overhead power lines*** and/or other overhead utilities, water, buildings, environmental, other trades/contractors, equipment in area, access & egress, confined space entry, or any other issue that may affect the ground disturbance or work being performed.

SECTION 5: APPROVAL REQUIREMENTS

All workers involved in ground disturbance have reviewed permit and attached documentation and understand and accept the applicable excavation plan and relevant procedures: ☐ Yes

All workers involved understand and accept it is their responsibility to *STOP* the ground disturbance process if they are unsure, require any additional information, or encounter any concerns or unknowns: ☐ Yes

A copy of this ground disturbance permit and all related documents will be at the immediate work area during all times of ground disturbance activities: ☐ Yes

Permit Issuer Checklist (Form HSE-FRM-065) has been completed and signed by the permit issuer: ☐ Yes

Operator Worker Checklist (Form HSE-FRM-064) has been completed and all deficiencies addressed prior to workers entering the ground disturbance: ☐ Yes

Does the ground disturbance require any additional permit(s) for entry: (if yes attach a copy of the applicable Permit(s) ☐ Yes ☐ No

☐ Hot Work Permit ☐ Cold Work Permit ☐ Other:_____
☐ Confined Space Entry ☐ Lockout Permit ☐ Other:_____

SECTION 6: Drawing of Excavation or As Built or Blueprint (attach or draw)

SECTION 7: PERMIT REVIEW

The Ground Disturbance Permit and all related documents have been reviewed with me and I understand and accept all the applicable documents and my responsibilities.

PERMIT REVIEW WITH WORKERS				
NAME	COMPANY	TRADE/POSITION	DATE	SIGNATURE

SECTION 8: PERMIT APPROVED/ACCEPTED

Have all Graham HSE Ground Disturbance and other applicable Graham documents, applicable OH&S/OSHA legislation requirements, worker protection, and owner/client requirements been reviewed, addressed, and achieved: ☐ Yes ☐ No If No Why:_____

Permit Issuer:_____ Date/Time:_____
(Print Name & Sign)

Permit Requester:_____ Date/Time:_____
(Print Name & Sign)

SECTION 9: PERMIT CLOSURE

Is the ground disturbance complete: ☐ Yes ☐ No If No Why:_____

Are additional ground disturbance permits required to complete the work:

☐ Yes ☐ No If No Why:_____

Have barricades been put up and the excavation protected:

☐ Yes ☐ No If No Why:_____

Permit Issuer: _____ Date/Time: _____
(Print Name & Sign)

Permit Requester: _____ Date/Time: _____
(Print Name & Sign)